

Studies in Natural Language and Linguistic Theory 92

Justin Nuger

# Building Predicates

The View from Palauan

 Springer

## Building Predicates

# Studies in Natural Language and Linguistic Theory

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Justin Nuger

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*This book is dedicated to all Palauans  
and speakers of Palauan, in the hope  
that their language will survive forever*

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And if I've left some of you out, it's because you're the most special of all. You know who you are.

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# Abbreviations

Please see the Appendix for additional remarks on the Palauan language data, orthographic standardization, and glossing conventions.

=	(Realis) Subject agreement clitic
1	First person
2	Second person
3	Third person
AC	Anticausative (in Icelandic data)
ACC	Accusative case
AGR	Agreement (in Chamorro and Chichewa data)
AP	Antipassive (in glosses)
A(P)	Adjective (Phrase)
ARB	Arbitrary referent
ATC	Anticipative
AUX	Auxiliary
C	Complementizer (in glosses)
CAU	Causative
CONT	Continuous (in Persian data)
C(P)	Complementizer (Phrase)
D	Determiner (in glosses)
DAT	Dative case (in Icelandic and Spanish data)
DEF	Definite
DEM	Demonstrative
DM	Distributed Morphology
D(P)	Determiner (Phrase)
ECM	Exceptional Case Marking
EMPH	Emphatic morpheme/word
EPP	Extended Projection Principle
EXC	Exclusive
EXP	Expletive

FEM	Feminine (in Amharic and Ukrainian data)
FUT	Future tense
<GAP>	A' gap
GB	Government and Binding Theory
GEN	Genitive case
HPSG	Head-Driven Phrase Structure Grammar
±HUM	Human/non-human
ICP	Inceptive
IMP	Imperative
IMPF	Imperfective aspect— <i>ordinarily not glossed</i> (also <i>imparfait</i> in French data)
INC	Inclusive
INDEF	Indefinite
INTR	Intransitive
I(P)	Inflection (Phrase)
IRR	Irrealis
L	Linker
LF	Logical Form (in the context of the syntactic Y model)
NEG	Negation
NMLZ	Nominalizer
NOM	Nominative case (in Icelandic and Ukrainian data)
N(P)	Noun (Phrase)
O	(Perfective) Object agreement suffix
OBL	Oblique (in Chamorro data)
P	Preposition (in glosses)
P	Possessor agreement suffix (in glosses)
PART	Partitive case (in Finnish data)
PASS	Passive
PAST	Past tense
PERF	Perfect (auxiliary)
PF	Perfective aspect (in glosses)
PF	Phonetic Form (in the context of the syntactic Y model)
PL	Plural
P(P)	Preposition(al Phrase)
PRES	Present tense— <i>ordinarily not glossed</i>
PROG	Progressive (in Chamorro data)
PS	<i>Passé simple</i> “simple past” (in French data)
R	Realis— <i>ordinarily not glossed</i>
RECIP	Reciprocal
REFL	Reflexive
RES	Resultative
S	(Irrealis) Subject agreement prefix
SG	Singular
±SPEC	Specific/non-specific (in glosses)

STAT	Stative (in Chichewa data)
TOP	Topic marker
T(P)	Tense (Phrase)—cf. IP (Inflection Phrase)
TRAN	Transitive
VBLZ	Verbalizer
VOC	Vocative
V(P)	Verb (Phrase)

# Chapter 1

## Setting the Stage

This book explores foundational questions at the heart of linguistic theory involving the formal status of *words*. What is a word? At what point do words become words? One possibility is that they might be indivisible morphological units when they enter the syntax (e.g., terminal nodes on a syntactic tree that have been extracted from a mental lexicon). Another possibility is that they begin their lives simply as abstract features, which the syntax can manipulate into words that receive a phonetic form later in the derivation. A hybrid of these two views could be a third possibility. The key differences between these views are essentially traceable to whether words, like phrases, have an internal syntactic structure. Are words simply listed in a mental lexicon and pulled into the syntax as we need them? Or do we build words in the syntax at the same time and in the same way we build sentences?

To address these questions empirically, this book investigates the verbal complex in Palauan, an Austronesian language spoken by somewhere around 15,000 people in the Republic of Palau and smaller communities elsewhere. Palauan has a very rich system of verbal morphology and an inventory of many different syntactic classes of verbal predicates. In many ways, these features make it an ideal language in which to examine the issues articulated above, particularly as they pertain to verbs: how verbs are formed, how they enter the syntax, and how the syntax creates larger verbal predicate phrases from them. Although much ground has already been covered in Palauan linguistics, the theoretical investigations pursued in this book necessitate a careful approach to analyzing data from new empirical domains. The majority of the data has been drawn either from my own fieldwork or from naturally occurring sources like books, newspaper articles, children's stories, pedagogical and religious texts, and cultural materials. The Appendix contains a precise listing of these sources of naturally occurring data, as well as sections on glossing conventions and Palauan orthography, which will be helpful to readers working through the Palauan language data in this book. To my knowledge, the Palauan descriptive literature has not previously capitalized on sources of naturally occurring data, which—in conjunction with my fieldwork—have revealed generalizations that push beyond those in existing descriptions of the language. As a consequence, this book not only serves as a contribution to our understanding of the formal status of words and predicates in



linguistic theory, but it also represents a step forward in our understanding of the structure of Palauan.

## 1.1 The Broader Context

Traditionally, research within generative linguistics aims to capture the set of properties that characterize human language, or the *faculty of language* assumed to be innate to all human beings (for details, see Hauser et al. 2002; Fitch et al. 2005, and for further discussion and critique, see Pinker and Jackendoff 2005; Jackendoff and Pinker 2005). The theory of *Universal Grammar* postulates that each human being acquires one or more individual languages (such as Pittsburgh English, Parisian French, Palauan, or Puerto Rican Sign Language) through the development of his or her faculty of language from its initial state (the Universal Grammar that every human is born with) towards its final state (representing an individual language). The biolinguistic perspective views the faculty of language as being on par with an organ of the human body, one of many subcomponents of a human being that interact with each other in his or her everyday life. The study of many different languages is thus essentially the study of different possible states of the language faculty, which may develop differently in individuals as they interact with a variety of linguistic environments.

### 1.1.1 Core Theoretical Assumptions

As a guiding principle in the linguistic study of individual languages, it has recently been useful in the context of the Minimalist Program (Chomsky 2004, 2008; building on Chomsky 1995, 2000, 2001; see also Brody 1995) to consider what Chomsky (2008: 135) calls “an extremely far-reaching thesis [...] which no one expects [to hold fully],” namely the *Strong Minimalist Thesis*. A recent formulation of the Strong Minimalist Thesis is given in (1) below.

- (1) STRONG MINIMALIST THESIS: Language is an optimal solution to interface conditions that the faculty of language must satisfy, i.e., language is an optimal way to link sound and meaning. [Chomsky 2008: 135]

In the hypothetical and extremely unlikely case where the Strong Minimalist Thesis were tenable<sup>1</sup> as formulated in (1), the faculty of language (or at the very least its initial stage, Universal Grammar) would be governed exclusively by principles

---

<sup>1</sup>Discerning *whether* the Strong Minimalist Thesis could be tenable would not be an easy task in itself, since it is difficult to imagine how it might even be testable, as Kie Zuraw points out to me.

stemming from conditions imposed by the sensory-motor and conceptual-intentional interfaces. The goal of the Minimalist Program is thus to determine the nature of the interfaces and the ways in which language satisfies the conditions they impose, as well as to find principled justification for necessary departures from the Strong Minimalist Thesis as they arise. Research conducted under the umbrella of different versions of syntactic theory developed by Chomsky and his collaborators—the Extended Standard Theory, Government and Binding Theory, and the Minimalist Program in its various guises—has made significant leaps forward in analyzing superficial morphological and syntactic differences between individual languages as traceable to hypothesized requirements imposed by these two linguistic interfaces.<sup>2</sup>

This book explores topics in Palauan syntax, morphosyntax, argument structure, and semantics. If the theories of Universal Grammar and the faculty of language prove to be valid, then this study serves to augment both our knowledge of the possible cross-linguistic implementations of familiar constructions as well as our knowledge of the nature of the faculty of language through the investigation of the properties of one possible final state of the language faculty: Palauan.

### ***1.1.2 Theoretical Frameworks***

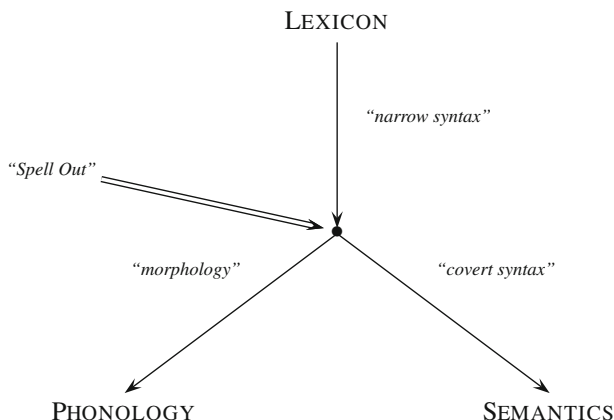
The Palauan data examined in this book reveals patterns that inform us about how the syntax–morphology and syntax–semantics interfaces might be organized, and it is thus worthwhile to be explicit about the theoretical frameworks I adopt to construct my analysis. This section discusses the principles of two different models of the grammar, one based on the principles of Government and Binding Theory/Minimalism and another that is more compatible with morphological theories assuming late insertion of lexical material (e.g., Anderson 1982, 1992; Halle 1990; Halle and Marantz 1993, 1994).

#### **1.1.2.1 Minimalism**

Research on the nature of the sensory-motor and conceptual-intentional interfaces certainly predates the Minimalist Program. Indeed, one of the biggest leaps forward since the advent of the generative linguistic enterprise (typified by Chomsky 1957, 1965; Lees 1960) has been the conceptualization of the syntactic inverted Y model (explicitly formulated in Chomsky and Lasnik 1977: 428–429 and shown in Fig. 1.1),

---

<sup>2</sup>Much recent work in the Minimalist Program refers to the sensory-motor and conceptual-intentional interfaces as PF and LF, respectively. These are terminological remnants of Government and Binding Theory that described pre-interface syntactic levels of representation. In the interest of swimming with the tide, I too occasionally and perhaps confusingly adopt the terms PF and LF in the present work to refer both to the interfaces themselves and to the corresponding post-Spell Out, pre-interface levels of linguistic representation (Phonetic Form and Logical Form), hopefully without significant loss of precision.



**Fig. 1.1** Inverted Y model (cf. Chomsky and Lasnik 1977: 428–429)

which assigns to syntax the role of mediator between sound and meaning, the two components of the Saussurean “sign” (de Saussure 1916).

On this model, words enter a syntactic derivation from the lexicon and are subject to operations imposed by the *narrow syntax*, in which structure is built and eventually shipped off to the interfaces at the point of *Spell Out*. After *Spell Out*, further syntactic operations are possible in the *covert syntax* that may affect semantic interpretation (such as scope and binding relations), but these are accessible only to the semantics. As far as pronunciation is concerned, syntactic operations that take place after *Spell Out* in the covert syntax are invisible to the phonology. Similarly, any post-syntactic operations that apply after *Spell Out* on the PF branch should not affect the semantics.

One version of the Minimalist framework (see Chomsky 2000, 2001, 2004, which together approximately—but not exactly—represent the version I assume in this book) adheres strictly to the inverted Y model of the grammar shown in Fig. 1.1, and the lexicon contains fully-inflected lexical words as well as functional heads. Essentially, this version of Minimalism assumes some form of Lexical Morphology (i.a., Chomsky 1970; Halle 1973; Jackendoff 1975; Aronoff 1976; Lapointe 1980; Selkirk 1982; Di Sciullo and Williams 1987; Lieber 1992; Chomsky 1995), which assumes that the morphological shape of words is determined in the lexicon and is not manipulated by the syntax (i.e., the Strong Lexicalist Hypothesis; see Scalise 1984: 101ff.; Pullum and Zwicky 1992: 389–390). From this lexicon, a small subset of lexical items is extracted to be used later in the derivation, forming the *numeration*. Members of the numeration are syntactic heads that combine via the operation *Merge*, which forms a binary-branching subtree. More recently, the theory of *Bare Phrase Structure* advances the idea that different projections of the same head are to be treated as identical as far as category is concerned; i.e., there is no longer a formal distinction between X, X', and XP levels as there was in X-Bar Theory. As a consequence, the distinction between complements and non-complements remains, but the distinction between specifiers and adjuncts to (what was formerly) XP has become blurred.

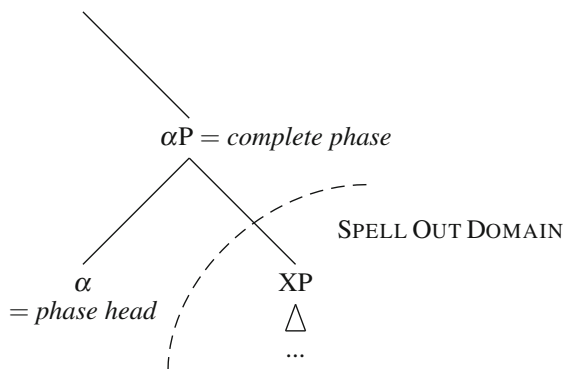
The *Extension Condition* mandates that only the highest node in a subtree may be merged with a new head (or subtree), which ensures both (i) that the tree will be binary branching and (ii) that trans-derivational Merge operations will be prohibited. Chomsky (2000, 2001) proposes that features on certain heads can be valued through the operation *Agree*, which—among other things—is responsible for (i) ensuring that clauses have subjects (encoded formally by an [EPP] feature on T), (ii) determining agreement morphology (valuing any unvalued  $\varphi$ -features on T,  $v$ , etc.), and (iii) licensing structural Case on DPs such that they satisfy the *Case Filter*, a requirement that every DP bear abstract Case. The *Agree* relation typically is instantiated by a particular head, which probes its c-command domain for a DP with which it can value its features. In more recent work (Hiraiwa 2001, 2005; Chomsky 2004, 2008), it has been argued that a single head can instantiate multiple such *Agree* relations, resulting in situations with *Multiple Agree*, which I also explore in Chap. 2.

Finally, *Phase Theory* dictates that sub-portions of the total phrase structure will be sent to the interfaces (LF and PF) at various stages of the derivation, as defined by a finite set of “phase heads.” It is currently thought that (at least) C, D, and transitive  $v$  form the set of phase heads. Specifically, when a phase head is fully projected (i.e., a maximal CP, DP, or transitive  $vP$  is complete), the complement of the phase head is sent to LF for interpretation and to PF for Spell Out; this is the Spell Out Domain depicted in Fig. 1.2.

The *Phase Impenetrability Condition* mandates that any portion of the subtree that has been sent for Spell Out as a result of its being the complement of a phase-defining head is inaccessible to further syntactic operations. The Phase Impenetrability Condition is defined in (2).

- (2) PHASE IMPENETRABILITY CONDITION: In phase  $\alpha$  with head H, the domain of H is not accessible to operations outside  $\alpha$ ; only H and its edge (the residue outside of H': either specifiers or elements adjoined to HP) are accessible to such operations. [Chomsky 2000: 108, ex. 21; Chomsky 2001: 13, ex. 7]

**Fig. 1.2** Phases and spell out domains



Together, these elements of the theory of Minimalism (as outlined above) arguably provide syntacticians with enough theoretical machinery to describe the syntactic behavior of typologically diverse languages, but the theory is also constrained enough to make strong, testable empirical predictions about what the syntax of various languages can and cannot look like.

### 1.1.2.2 Late Insertion of Lexical Material

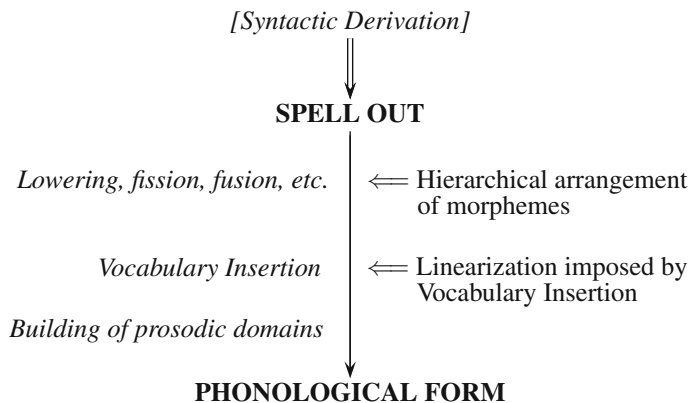
The developments of A-Morphous Morphology (Anderson 1982, 1992) and Distributed Morphology (i.a., Halle 1990; Halle and Marantz 1993, 1994; Marantz 1997; Harley and Noyer 1999) have provided alternatives to the strict lexicalist view of morphology dominant during the 1970s and 1980s, and to some extent during the 1990s. To various degrees, these theories dissociate the process of word formation from the lexicon either partially/indirectly (in the case of A-Morphous Morphology) or entirely/directly (in the case of Distributed Morphology), essentially assigning to the syntax the additional function of constructing words as well as phrases.

Although the incarnation of the Minimalist syntactic framework outlined above adopts essentially lexicalist morphological assumptions, the modification of just a few of these assumptions allows Minimalism to be straightforwardly compatible with theories which construe the terminal nodes of syntactic structure simply as bundles of morphosyntactic features (but not phonological features; cf. Zwicky and Pullum 1986). Although both A-Morphous Morphology and Distributed Morphology assume late insertion of lexical material, the theories differ somewhat in their mechanics.

A-Morphous Morphology (Anderson 1982, 1992) is essentially a theory of inflection. It retains a lexicon, but not in the traditional sense. Words are derived in the lexicon using *Word Formation Rules*, and these words fill positions at syntactic terminal nodes after the structure is built. Inflected forms are listed in the lexicon as blocks of related forms, and the appropriate form is selected based on the features present in the syntax. In other words, lexical items are extracted on the basis of features from the syntax. They are not themselves manipulated or formed syntactically.

Distributed Morphology, on the other hand, rejects the notion of a centralized lexicon, but instead treats the information that is localized in the lexicon in other theories (i.e., syntactic and category features, phonological information, semantics, and so forth) as “distributed” throughout the grammar. In Distributed Morphology, syntactic terminal nodes are *abstract morphemes* composed of bundles of morphosyntactic features whose exponents are realized after Spell Out. Hierarchical structure retains its form in the initial stages of the PF derivation, until linearization is imposed by *Vocabulary Insertion*; the stages of PF as posited by Embick and Noyer (2001: 566) are shown in Fig. 1.3.

The sub-derivation between Spell Out and PF allows for additional operations to manipulate terminal nodes further, before they are realized morphophonologically. These operations might fuse two terminal nodes into one, split one terminal node into two, and (in certain restricted domains) reorder terminal nodes or insert extra



**Fig. 1.3** The PF branch of the derivation (cf. Embick and Noyer 2001: 566)

ones. The empirical motivation for such adjustments can be found in situations characterized by morphological structure that is not in an isomorphic relation to syntactic structure. Still, the basic tenet of the theory is that wherever there is a morpheme, there is a terminal syntactic node of which that morpheme is the realization.

Phonological forms of morphemes are listed in the *Encyclopedia* as *Vocabulary Items* along with idiosyncratic information about them, including our real-world knowledge (e.g., we know that the sky is not red, and so forth). While the appropriate forms of functional morphemes are selected using the features in the syntax on the basis of the *Subset Principle*, given below in (3), lexical morphemes (i.e., roots) are not usually considered to be in competition with one another and may be inserted freely (e.g., Acquaviva 2008; see also Siddiqi 2009 for potential exceptions, such as  $\sqrt{\text{RUN}}$  being realized as either *run* or *ran*). In this way, the syntax is directly responsible for building words as well as phrases.

### (3) SUBSET PRINCIPLE

- a. The phonological exponent of a Vocabulary Item is inserted into a position if the item matches all or a subset of the features specified in that position.
- b. Insertion does not take place if the Vocabulary Item contains features not present in the morpheme.
- c. Where several Vocabulary Items meet the condition for insertion, the item matching the greatest number of features specified in the terminal morpheme must be chosen. [Halle 1997: 428]

In some varieties of Distributed Morphology, roots are category-neutral and must Merge in the syntax with a category-defining functional head *n*, *a*, or *v* to form nouns, adjectives, and verbs respectively (Marantz 1997, 2001, 2007; Arad 2003, 2005; Borer 2005a,b; Embick and Noyer 2007; Embick and Marantz 2008: 6; Embick

2010: 13). Throughout this book, I refer to such varieties of Distributed Morphology collectively as *Category-Neutral Root Theory*.<sup>3</sup> The category-defining heads may be null or overt, and they come in different “flavors” (i.e., they specify different types of semantic information, just as other functional heads like T(ense), Asp(ect), or Mood might). For instance, the *v* head, of which I make extensive use in my analysis in Chaps. 3–6, has varieties that mean CAUSE (as in *clarify* “cause to be clear”), BE (as in *fear* “be afraid of”), BECOME (as in *grow* “become grown”) and DO (as in *dance* “do a dance”). Recently, it has been proposed that the category-defining heads are all phase heads (i.e., the *Phases in Words* theory of Marantz 2001; Arad 2003); that is, the argument structure, semantics, and morphophonology of roots are all fixed when they Merge with a category-defining head due to the Phase Impenetrability Condition.

Now, if the Minimalist framework outlined above were modified to specify that abstract feature bundles—rather than lexical items—are the atoms manipulated over the course of a syntactic derivation, then this modified version of Minimalist syntactic theory could feed directly into a morphological theory assuming late insertion like A-Morphous Morphology or Distributed Morphology. It is such a version of Minimalism that I assume in this book. What corresponds to the lexicon in “standard” Minimalism instead simply contains bundles of features which are extracted and then organized by the syntax into words and phrases using the operations Merge, Move, and Agree, and these words and phrases receive their phonological forms after Spell Out, when they are sent to PF. In this way, the Minimalist framework may work together with either A-Morphous Morphology or Distributed Morphology to lay a new foundation on top of which explorations at the syntactic interfaces can receive an audience.

### 1.1.3 Empirical Breadth

A logical starting point in an empirical investigation of the verbal complex in any language is to consider the issue of how a verb itself is introduced into a syntactic derivation. What formal status does a verb have at that point? As is clear from the discussion above, different theories of syntax and morphology have different answers to this question. Does a verb enter the syntax as a fully-inflected word? A category-neutral root that the syntax later transforms into a verb? A simple bundle of morphosyntactic features? For any analysis of Palauan verb morphology, a great deal rests on this point, given the incredible morphosyntactic complexity of Palauan verbs. For instance, there are cases in which well over a hundred different surface verb forms might be thought of as “morphologically related,” by which I mean they contain both phonological and semantic content whose sources could be analyzed as

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<sup>3</sup>Much of the exposition in this section is taken from Harley’s (2008: Sect. 7.2) very concise, well-written summary of the status of Distributed Morphology in 2008. See also Harley and Noyer (1999).

traceable to a single root morpheme. If one adopts a root-based analysis of this sort, it can be said that Palauan verbs are composed of a multitude of combinations of inflectional and derivational morphemes signaling realis/irrealis mood, present/past tense, imperfective/perfective aspect, active/passive voice, valence increasing and decreasing operations (e.g., intransitivization, causativization), up to eight distinct forms of object agreement (on perfective verbs only), and up to five distinct forms of subject agreement (on irrealis verbs only, with two different sets of prefixes for imperfective and perfective forms).

To give an initial impression of the extent of the system, Tables 1.1, 1.2, and 1.3 offer examples of surface verbs that arguably share phonological and semantic features with the intransitive verb *tuchakl* “take a detour; stop by.”

Table 1.1 lists verbs that differ from *tuchakl* in ways that involve regular changes in argument structure, meaning, or both. In other words, they are arguably derivationally related. All of the verbs in Table 1.1 are shown in the realis mood. Realis verbs display subject agreement via clitics that may be separated from the verb by modifiers or auxiliary verbs. On the other hand, irrealis verbs are marked morphologically by their selection of a special set of subject agreement *prefixes*, distinct from the clitics that co-occur with realis verbs. Irrealis forms of some of the verbs in Table 1.1 are

**Table 1.1** Verbs morphologically related to *tuchakl*

Shape	Form	Meaning
<i>tuchakl</i>	Intransitive	Take a detour; stop by
<i>meluchakl</i>	Active transitive	Change course of <i>x</i> ; deflect <i>x</i>
<i>metuchakl</i>	Passive	Be thrown off course; get deflected
<i>teluchakl</i>	Resultative	Off course; deflected
<i>oluchakl</i>	Causative active	Detain <i>x</i> ; flag down <i>x</i>
<i>motuchakl</i>	Causative passive	Get detained; get flagged down
<i>ultuchakl</i>	Causative resultative	Detained; flagged down

**Table 1.2** Some forms of verbs related to *tuchakl* with irrealis subject agreement

Subject $\varphi$ features	Transitive ( <i>meluchakl</i> )	Passive of transitive ( <i>metuchakl</i> )	Causative ( <i>oluchakl</i> )	Passive of causative ( <i>motuchakl</i> )	
1SG	<i>k-uluchakl</i>	<i>k-me-tuchakl</i>	<i>k-ul-tuchakl</i>	<i>k-mo-tuchakl</i>	
1PL	INC	<i>d-oluchakl</i>	<i>de-me-tuchakl</i>	<i>d-ol-tuchakl</i>	<i>de-mo-tuchakl</i>
	EXC	<i>kim-oluchakl</i>	<i>ki-me-tuchakl</i>	<i>kim-ol-tuchakl</i>	<i>ki-mo-tuchakl</i>
2SG/2PL	<i>chom-oluchakl</i>	<i>cho-me-tuchakl</i>	<i>chom-ol-tuchakl</i>	<i>cho-mo-tuchakl</i>	
3SG/3PL	<i>l-oluchakl</i>	<i>le-me-tuchakl</i>	<i>l-ol-tuchakl</i>	<i>le-mo-tuchakl</i>	



**Table 1.3** Some forms of verbs related to *tuchakl* with perfective object agreement

Direct object $\varphi$ features		Transitive ( <i>meluchakl</i> )	Causative ( <i>oltuchakl</i> )
1SG		<i>tuchekl-ak</i>	<i>o-tuchekl-ak</i>
2SG		<i>tuchekl-au</i>	<i>o-tuchekl-au</i>
3SG		<i>tuchekl-ii</i>	<i>o-tuchekl-ii</i>
1PL	INC	<i>tuchekl-id</i>	<i>o-tuchekl-id</i>
	EXC	<i>tuchekl-emam</i>	<i>o-tuchekl-emam</i>
2PL		<i>tuchekl-emi</i>	<i>o-tuchekl-emi</i>
3PL	+HUM	<i>tuchekl-eterir</i>	<i>o-tuchekl-eterir</i>
	-HUM	<i>tuchakl</i>	<i>o-tuchakl</i>

given in Table 1.2 (for comparison, the corresponding realis forms are shown at the top of Table 1.2).

Under particular circumstances, Palauan transitive verbs obligatorily agree with their direct objects in person, number, and (for 3PL direct objects) animacy, with the verbs themselves hosting object agreement suffixes. In the Palauan literature, a generalization has emerged that object agreement correlates with a “perfective” interpretation of the predicate (Wilson 1972a,b; Flora 1974; Josephs 1975, 1997; Hagège 1986; Georgopoulos 1991b; Lemaréchal 1991). Now, the two transitive verbs in Table 1.1—*meluchakl* and *oltuchakl*—are both given in the imperfective aspect, which is the citation form and the form under which a verb’s main entry in Josephs’s (1990) dictionary is listed. Table 1.3 lists the perfective forms of *meluchakl* and *oltuchakl* based on the features of the direct object DP that triggers the agreement morphology.

The verbs in Tables 1.1, 1.2, and 1.3 can all be found in present tense clauses. However, there are other tenses (and aspects) that are expressed via auxiliary verbs or via morphological changes to the verbs themselves. Auxiliaries found in Palauan include *mle* (past), *m̄la* ( $\approx$ perfect/recent past), *mo* (future), and *m̄lo* (past change of state). Examples of morphological changes that occur directly on the verb include infixation of *-il-* (past), reduplication (iterative/habitual), suffixation of *-a(ng)* (inceptive), suffixation of *-u(ng)* (anticipative), and suffixation of *-all/-(e)l/-iil/-ill/-oll/-ull/-uul* (anticipative resultative).<sup>4</sup> I will not provide examples of verbs in these additional tenses and aspects, but it is easy to imagine how they dramatically increase the number of dimensions involved in building groups of verbs from a given root. To be sure, the morphosyntactic complexity of the Palauan verbal system raises serious questions about the nature of verbal paradigms and the linguistic mechanisms involved in determining the morphological shape of verbs.

<sup>4</sup>The anticipative resultative suffixes also occasionally appear in non-anticipative resultatives, but only when they co-occur with the canonical resultative infix *-(e)l-*. I assume that such cases are lexical anomalies that have historical origins, and that in these cases the anticipative resultative suffixes contribute nothing syntactically or semantically. I unfortunately cannot provide concrete evidence for this, but it is my hope that the analysis of Palauan resultatives that I present in Chap. 6 will serve as a springboard for future work on anticipative resultative morphosyntax.

In order to determine which theory of morphology is best suited to capturing the facts surrounding Palauan verbal morphosyntax, we must inevitably investigate purely syntactic questions in tandem with morphological ones. The unusual splits in subject agreement and object agreement morphological paradigms along the lines of mood and aspect already suggest that the syntax has a definitive role either in directly conditioning which morphological forms a verb can have or in constraining the possible distributions of verbs with particular morphological shapes, depending on the theory of the syntax–morphology interface one assumes.

This book explores the following empirical domains. Chapters 2 and 3 deal with clause structure, and a systematic investigation of Palauan grammatical relations shows that the notions of *subject* and *direct object* are empirically motivated in Palauan. Despite initial appearances, we will see that the basic clause structure of Palauan is perhaps not so different from that of any familiar European or East Asian language. In Chap. 4, the properties of a particular class of Palauan idiomatic predicates—which I call  $\psi$ -idioms—provide strong support for an analysis of verbal morphology as (at least partially) being built up syntactically. Chapter 5 concentrates on intransitive predication more generally, focusing on the properties of passives, anticausatives and other unaccusatives, and statives; I conclude that despite many very real and very revealing correlations between verb morphology and syntactic behavior, differences in verb morphology are neither necessary nor sufficient indicators of verb subclass membership. In Chap. 6, an analysis of Palauan resultative predicates suggests not only that verbs and predicates of other categories may be constructed syntactically, but that there may be entire classes of verbs with no minimal syntactic constituent that contains all and only the morphemes used to construct the verb. On an analysis built with the assumptions underpinning Distributed Morphology, derivational morphemes (which determine category) may merge with syntactic objects that are larger than a  $\sqrt{\text{ROOT}}$  or  $\sqrt{\text{P}}$ . The results of these investigations are synthesized and discussed from a much broader perspective in Chap. 7, which places them in the context of current research in linguistic theory.

## 1.2 A Glimpse into the Palauan Language

Palauan is spoken in the Republic of Palau, an archipelago consisting of around 200 islands in the Western Pacific Ocean. Palau is located roughly within the triangle formed by the Philippines, Papua New Guinea, and Guam, about 7 degrees north of the Equator, as shown in Fig. 1.4. Despite its geographical position within Micronesia, Palauan (along with Chamorro) is a Western Malayo-Polynesian language (Dempwolff 1934; Blust 1977; Jackson 1986; Zobel 2002; cf. Dyen’s 1965 placement of Palauan on its own branch of the Austronesian family tree), more closely related to the languages of Indonesia and the Philippines than to its nuclear Micronesian neighbors spoken on Chuuk, Ponape, Kosrae, the Marshall Islands, and Kiribati. A long history of trade relations among the various regions of Palau has resulted in little dialectal variation in any of the northern islands (Kayangel, Babeldaob, Koror,

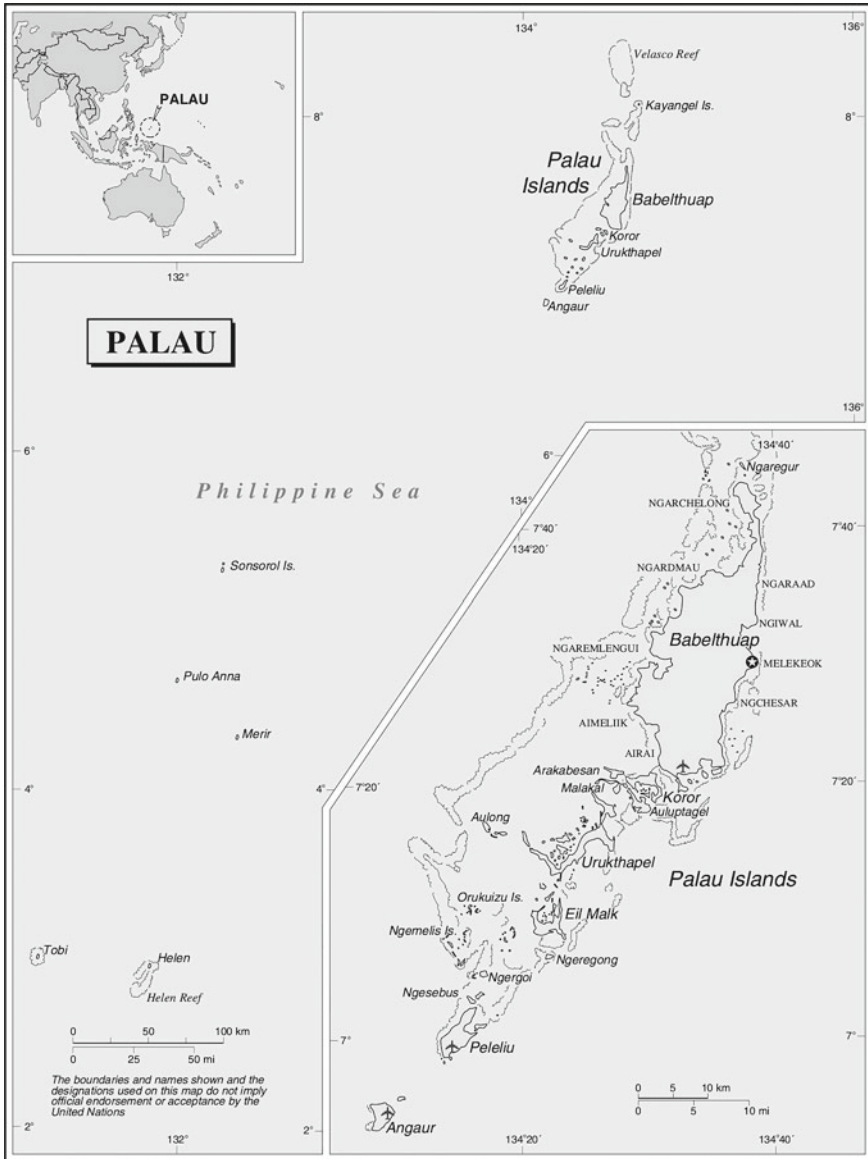


Fig. 1.4 Location of Palau in the Pacific Ocean (credit Wikimedia Commons)

Peleliu, and Angaur) where the vast majority of the population lives. The remaining residents of the “Southwest Islands” that make up the states of Sonsorol and Tobi (located several hundred kilometers away from the northern islands) speak nuclear Micronesian languages that are not closely related to Palauan.

Historically, Palau was governed by other nations for many years, starting with the country’s colonization by Spain in the early 19th century. Along with the Caroline, Mariana, and Marshall Islands, Palau formed part of the Spanish East Indies, governed by the Spanish Philippines until the end of the Spanish–American War in 1898. Spain sold Palau to Germany in 1899, and Germany administered Palau from German New Guinea until 1914, when control passed to Japan during World War I. Following the war, Palau was officially recognized as Japanese by a League of Nations Mandate. The period of Japanese colonization lasted for several decades until the United States took control of Palau in 1944, during World War II. Palau was later passed formally to the United States under United Nations auspices in 1947 as part of the Trust Territory of the Pacific Islands. Palau’s own constitution went into effect on October 1, 1994, at which point it became a politically autonomous, independent nation.

### ***1.2.1 The Language Situation***

The Palauan language has emerged as the dominant language in Palau despite these periods of colonization and occupation, but with a highly stratified vocabulary augmented by the four colonial languages: primarily Japanese and English, and to a lesser extent Spanish and German. According to the 2005 Palau Census, there are 18,544 people aged five years or older residing in the Republic of Palau, of whom 13,826 speak Palauan. This number did not include communities of native Palauan speakers residing outside of Palau, which some estimates place at an additional several thousand. For instance, the 2010 Census results from Guam and the Commonwealth of the Northern Mariana Islands (CNMI) are suggestive: although they do not contain Palauan language statistics, they do report that a total of 2563 residents of Guam and 1437 residents of the CNMI are of Palauan ethnic origin, and that 1437 residents of Guam and 741 residents of the CNMI were actually born in Palau. In addition to Guam and the CNMI, there are significant concentrations of Palauan speakers in (at least) Hawaii, California, and other parts of the United States, to some extent because of the Compact of Free Association between Palau and the United States which greatly simplifies the process for citizens of either country to pursue educational and employment opportunities in both countries.

Palauan is one of the two nationally recognized official languages of the Republic of Palau, the second being English. There are few if any monolingual speakers. While English is used in many government, business, educational, and other public settings, most native Palauans use Palauan among themselves in domestic, social, and cultural settings. Though I have no official or current statistics to support me, my impression is that the language is still acquired (to some extent) by nearly all Palauan

children. English is the primary language of instruction in schools, as the majority of primary and secondary school textbooks and materials are written in English (though I hear that some teachers use Palauan in the classroom even while teaching from printed English materials). In the past, Palauan language newspapers enjoyed a reasonable circulation, but at the time of writing, only the occasional Palauan language editorial or advertisement can be found in predominantly English-language newspapers. However, written Palauan appears on many signs and storefronts around Koror, and all government documents are required to be published in Palauan (but may also be published in English). As far as broadcast media is concerned, there are three Palauan television channels (two public, and one private) and a handful of Palauan radio stations, one of which broadcasts a daily Palauan political talk show that is very popular and forms the topic of much discussion. Generally speaking, Palauan still enjoys a reasonably high level of prestige in Palauan culture, and it should thus probably not be classified as moribund or even endangered despite the fact that it is spoken by a relatively small number of people worldwide.

During the 1970s and 1980s, the Palauan language enjoyed a surge of theoretical interest through the work of linguists at the University of Hawaii in conjunction with the Trust Territory of the Pacific Islands and at a handful of other universities around North America and Europe. For the last two decades, however, Palauan has sat relatively dormant in the theoretical linguistics scene. In the context of the increased interest in research at the grammatical interfaces during this period—in particular the syntax–semantics interface and the syntax–morphology interface—new opportunities have arisen to examine the questions posed at the beginning of this chapter.

The body of linguistic literature dedicated to Palauan is small in comparison to those of more familiar languages, and yet an impressive amount of ground has already been covered. Explorers and missionaries from the early periods of Palau's colonial history already made a great deal of progress in the description of the different sentence types and the inventory of predicates in the language (see Keate 1788; Hockin 1803; Walleser 1911, 1913; Conant 1915) which paved the way for more detailed and comprehensive linguistic descriptions by Capell (1949), Pätzold (1969), and Josephs (1975, 1990, 1997, 1999). After the advent of generative linguistics, the incredibly complex morphophonology of the language was made transparent by Wilson (1972a, b) and Flora (1974), laying the necessary foundation for syntacticians to investigate topicality (DeWolf 1979), passive and active voice alternations (Waters 1980; DeWolf 1988), predication and specification (Hagège 1986), the syntax of A' dependencies and variable binding (Georgopoulos 1985, 1986, 1991b; Cherney 1993; Gerassimova 2005), and the syntax-semantics interface (Lemaréchal 1991, 1993). Recent years have also seen impressive work by native Palauan scholars, including the conversation books of Tkel-Sbal (1992, 1996) and Malsol (1999), revised compilations of traditional Palauan legends in print format by Tmodrang (1997), as well as a substantial monolingual Palauan Dictionary with 13,791 entries by Ramarui and Temaël (1999), which is, as far as I know, the first of its kind in Micronesia. Much of the aforementioned work has been digitized and made available online at <http://tekinged.com> by John Bent, a former Peace Corps volunteer in Palau from 1995 to 1997.

### 1.2.2 Grammatical Sketch

In many respects, Palauan morphophonology and syntax may initially appear parochial or mysterious to those first encountering it, particularly if they are unfamiliar with the linguistic features of other Austronesian languages. In this section, the goal is to eliminate much of this perceived mystery and to provide the necessary background for the reader to easily digest the Palauan data in subsequent chapters. The discussion here is deliberately cursory; I refer the curious reader to the aforementioned descriptive linguistics work for more details (in particular Josephs's excellent *Handbook of Palauan Grammar*, Vol. 1 (1997) and Vol. 2 (1999), which can be accompanied by Josephs (1990), the *New Palauan-English Dictionary*).

Palauan features many syntactic properties that are typical of other languages in the Austronesian family. Some of these include:

- Basic underlying VOS word order (Waters 1980; Georgopoulos 1986).
- Predicates of any lexical category and no overt copula (Capell 1949; Josephs 1975).
- Head-initial syntactic categories and rightward-branching specifiers (Georgopoulos 1991b; cf. Guilfoyle et al. 1992).
- Null pronominal arguments, usually (but not exclusively) co-occurring with overt agreement morphology (Hagège 1986; Georgopoulos 1991b).
- Widespread subject (left-) topicalization (though its analysis has been controversial—see, i.a., Josephs 1975; Waters 1980; Georgopoulos 1991b; Lemaréchal 1991 for details).

Many of these properties are directly relevant to my analysis of the Palauan data, and I will discuss them much more extensively in that context. At this point, I will simply provide representative examples to illustrate such properties, reserving the bulk of the discussion in this introductory chapter for other aspects of Palauan grammar that do not fit as neatly into later explorations of the syntactic phenomena in later chapters. These include the architecture of the nominal complex, the morphosyntax of modification, the *wh*-agreement phenomenon, and a precise analysis of topicalization structures, all of which are quite important for a clear understanding of the data presented later in this book.

#### 1.2.2.1 Word Order

I assume throughout this book that the underlying clausal word order in Palauan is VOS (Verb-Object-Subject). The issue of word order in Palauan has received much attention from linguists, as there were two competing analyses of Palauan underlying word order in the 1970s and 1980s: SVO versus VOS. The underlying SVO analysis received widespread recognition when Josephs adopted it in his highly influential and important *Palauan Reference Grammar* in 1975. After its publication, however, new evidence was found in favor of the VOS analysis (as argued explicitly in Waters 1980; Georgopoulos 1986, 1991b), which Josephs, too, adopts in his later work, such

as Josephs (1994, 1999). I do not intend to recapitulate the arguments that already exist in the literature, but I refer the reader to Georgopoulos (1991b: 32–41) (see also Josephs 1999: Chap. 15) for a clear and concise summary of the debate and the evidence in favor of the VOS analysis over the SVO analysis. The examples in (4) below illustrate the basic VOS word order. The subject is in **bold**, the direct object is in *italics*, and the verb is underlined.<sup>5</sup>

- (4) a. Ng ulemekeroul *a bung* **a del-ak** er a sers-el.  
 3SG= grew D flowers D mother-1SGP P D garden-3SGP  
 “My mother was growing flowers in her garden.”  
 [Georgopoulos 1991b: 40, ex. 34a]
- b. Te kilang *a rokui el ringngo* **a re-ngalek** er a elii.  
 3PL.+HUM= ate D all L apples D PL-child P D yesterday  
 “The children ate all the apples yesterday.”

### 1.2.2.2 The Nominal Complex

Presumably, an entirely separate book could be written about the morphosyntax of the Palauan nominal system. Fortunately, the important properties of the Palauan nominal complex for the purposes of this book are largely straightforward and will likely seem familiar even to linguists with no previous knowledge of Palauan. Below, I highlight some of the key properties that are relevant to the analysis later in this book.

When a nominal constituent is used as a predicate, it may minimally consist of a single noun or pronoun (but it may also consist of more than just the noun).

- (5) Ng **malk/beras/ngikel**.  
 3SG= chicken/rice/fish  
 “It’s chicken/rice/fish.” [PC 27]
- (6) Ng **kau** [a mo chuarm ].  
 3SG= you [D AUX.FUT INTR.suffer ]  
 “You are the one who will suffer.” [Chedaol Biblia, Proverbs 9:12]

<sup>5</sup>See the *List of Abbreviations* at the beginning of this book for a key to the glosses used in the Palauan data, as well as the *glossing conventions* in the Appendix for an explanation of the notation used in glosses.

Nominal predicates are used frequently in Palauan. Modal sentences are good examples, as they utilize the nominal predicates *kir-* “must” and *sebech-* “can,” which might be better translated as “obligation/necessity” and “ability/possibility,” respectively. The modal nominals *kir-* and *sebech-* may either co-occur with a possessor nominal that would correspond with the subject of the English modal sentence, or they may inflect for default 3rd person possessor agreement and mean roughly “It’s necessary (to...)” or “It’s possible (to...)”. Compare example (7) below, which contains the nominal predicate *sebech-* with default 3rd person possessor agreement, and example (8), which is inflected for agreement with a (null) 1SG pronominal possessor. Example (9) shows a non-modal noun *ngalek* “child” in predicate position as well, but unlike in (7) and (8), the predicate nominal agrees with an *overt* possessor phrase *a Bkau me a Elibeob* “Bkau and Elibeob.”<sup>6</sup>

(7) Ng **sebech-el**.  
 3SG= possibility-3SGP  
 “It’s possible.”

(8) Ng diak **l-sebech-ek** el merael.  
 3SG= NEG 3S.IRR-ability-1SGP L go  
 “I can’t go.” (approx. “It is not my ability to go.”) [KN 33]

(9) A Elilai me a Ltlatk a **ngelek-el** a Bkau me a Elibeob.  
 D Elilai and D Ltlatk TOP child-3SGP D Bkau and D Elibeob  
 “Elilai and Ltlatk are Bkau and Elibeob’s children.” [EI 16]

Many other constituents can appear inside a Palauan noun phrase, and their unmarked order is something along the lines of [Determiner, Quantifier, Adjectives, Noun, Possessor, PP/CP-Complements, Other Modifiers]. All optional elements inside the NP other than PPs (*viz.* quantifiers, adjectives, and other modifiers) condition the presence of a linker morpheme *el*, typical of many Austronesian languages, which I gloss as L throughout this book. The noun phrases below in (10) through (12) contain many of these different sub-constituents and serve as examples of the different possible orders.

<sup>6</sup>Note the 3rd person singular possessor agreement suffix *-el* on *ngelekel* in (9). Like some other languages (e.g., Irish: McCloskey and Hale 1984; Hebrew: Doron 2000; cf. Hindi and Tsez: Benmamoun et al. 2010), Palauan has left conjunct agreement, which is why the agreement suffix is 3SG rather than 3PL. More details are provided in Chap. 3.



- (10) a me-kngit el ralm er a sewer el me *tuobed* er se er a  
 D INTR-bad L water P D sewer L come *INTR.emerge* P this.(time) P D  
 Ongedei me a Ongeuang el Ureor er tia el *m/o* merek  
 third and D fourth L work(day) P this L *PAST.become* finished  
 el sandei  
 L week  
 “the bad sewer water that came out on Wednesday and Thursday of last  
 week” [Roureor Belau, 17 April 2002]
- (11) a kot el bli-l a ureor el omerek er a tekoi el chelid er tia  
 D first L house-3SGP D work L spread.IMPF ACC D word L god P this  
 el beluu  
 L country  
 “the first mission in this country” (approx. “the first house of work to spread  
 God’s word in this country”) [IK 5]
- (12) a re-terung el kau-sechelei el chad el *mi/lib* er a mo er a chei  
 D PL-two L RECIP-friends L people L *PAST.plan* P D go P D sea  
 “the two friends who planned to go fishing” (approx. “the two friends-with-  
 each-other people who planned on the going to the sea”) [IC 151]

The linker morpheme *el* is always adjacent to the quantifier/adjective/modifier, and it appears on the same side as the noun (regardless of whether other elements intervene between the linker and the noun). Consequently, there can be more than one linker in a single noun phrase. That numerals and quantifiers trigger the appearance of the linker just as adjectives and other modifiers do leads me to think that quantifiers and numerals are introduced into the nominal complex in adjunction structures, but I have not tested this empirically.

I assume that the linker does not occupy a syntactic position but is perhaps a piece of inflection (cf. Chung 1998 for a similar analysis of the Chamorro linker) or a dissociated morpheme (Embick 1997; McFadden 2004) inserted post-syntactically to indicate that the constituent it attaches to is a modifier. Nothing in this book hinges on any particular analysis of the linker.<sup>7</sup> Throughout this book, whenever I bracket

<sup>7</sup>Scontras and Nicolae (2014) propose an interesting structural analysis of the linker in Tagalog, and it’s worth considering whether such an analysis could work for Palauan too. The distribution of the linker in Palauan differs somewhat from its distribution in Tagalog. For example, it does not appear in the presence of certain adverbial modifiers like *dirk* “still,” and it has rather different word order restrictions than those described for Tagalog. For these reasons, I am skeptical that their analysis could be tenable in Palauan. Still, if a structural analysis of the linker does turn out to be the correct one, I don’t believe that any other argumentation in this book would be affected.

any constituent which triggers the appearance of the linker in Palauan sentences, I include the linker inside of this constituent bracketing to indicate that the linker would not be present if that constituent were not in the sentence. Because I assume the linker is not present in the narrow syntax, this bracketing convention should not be problematic, and it is intended to make the Palauan data more readable to those less familiar with the language.

Though the ordering of many elements inside the noun phrase is fixed, relative clauses (only of the restrictive variety) may precede the noun, but this order is marked. Quantifiers and adjectives can also optionally, and much more freely, appear in NP-final positions among other adverbials, such as locative PPs. To illustrate, note the pre-nominal position of the resultative adjectival modifier *telemall* “broken/injured” in (13) and its post-nominal position in (14).

- (13) A Lurvey a mo-cha meleel er tia el **telemall** el sers-el a  
 D Lurvey TOP go-ICP nail.IMPF ACC this L RES.break L fence-3SGP D  
 bli-l a Wilbur.  
 enclosure-3SGP D Wilbur  
 “Lurvey began nailing up Wilbur’s broken pigpen.” [CB 30]

- (14) A beab a mi/s-a a med-al a secheli-l **el telemall**.  
 D mouse TOP PAST.see.PF-3SGO D face-3SGP D friend-3SGP L RES.injure  
 “The mouse saw his friend’s injured face.” [BR 5]

Now, whenever a nominal expression is not used as a predicate, the word *a* typically occurs somewhere to its left.

- (15) Ak ou-charm a uel.  
 1SG= VBLZ-pet D turtle  
 “I keep turtles as pets.”
- (16) Ng mla me-luches a **babier**.  
 3SG= AUX INTR-write D letter  
 “The letter has been written.”

The distribution of *a* is consistent with its analysis as a determiner if it is true that determiners and pronouns are in complementary distribution (Postal 1966; cf. Abney 1987). In Palauan, *a* cannot co-occur with pronouns as in (17) or with demonstratives as in (18).

- (17) a. **Ke** olengit er **ngak**?  
 2SG= ask.IMPF ACC me  
 “Are you asking me?”
- b. \***Ke** olengit er **a ngak**?  
 2SG= ask.IMPF ACC D me  
 (“Are you asking me?”)
- (18) a. **Tirke** el chad a mla olengeseu er **se** el bilis.  
 those L people TOP AUX help.IMPF ACC that L dog  
 “Those people have helped that dog.”
- b. \***A tirke** el chad a mla olengeseu er **a se** el bilis.  
 D those L people TOP AUX help.IMPF ACC D that L dog  
 (“Those people have helped that dog.”)

Essentially, *a* introduces any non-predicative nominal constituent (DP) that is not headed by a pronoun or demonstrative.

Given their similar (and complementary) distributions, I analyze demonstratives as a subclass of pronouns. Consider the data below in (19).

- (19) a. A rrat a mla er **sei**.  
 D bicycle TOP was P that  
 “The bicycle was (over) there.”
- b. A rrat a mla er **tiang**.  
 D bicycle TOP was P this  
 “The bicycle was (right) here.”
- c. A rrat a mla er **ngii**.  
 D bicycle TOP was P it  
 “The bicycle was there.”

In (19a–b), the demonstrative words *sei* “that” and *tiang* “this” can also mean “there” and “here,” respectively. Furthermore, in (19c), the pronoun *ngii* “it” can also mean “there” in the same position. The similarity between pronouns and demonstratives is highlighted when they are the heads of DPs with more content.

- (20) a. **a** rokui el *smecher* el chad er ngii el beluu  
 D all L INTR.sick L person P it L place  
 “all the other sick people on the island” [Chedaol Biblia, Acts 28:9]
- b. **tirka** el rokui el chad  
 these L all L people  
 “all these people” [Chedaol Biblia, Numbers 11:11]

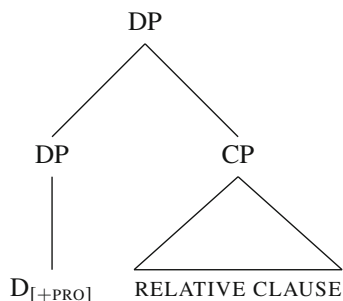
- c. **tirke** el rokui el ulsiik a kodell-em  
 those L all L seek.PAST D death-2SGP  
 “all those who wanted to kill you” [Chedaol Biblia, Exodus 4:19]
- d. **tir** el rokui el sechal el mla er a bli-l  
 they L all L males L were P D household-3SGP  
 “all the males in his household” [Chedaol Biblia, Genesis 17:23]

When the demonstratives *tirka* “these” and *tirke* “those” introduce larger DPs, as in (20b–c), they must be followed by the linker *el*, unlike the all-purpose determiner *a*, cf. (20a). If they were true determiners, the obligatory presence of the linker might be mysterious, as it ordinarily introduces modifiers and relative/embedded clauses, as will be shown below. But (20d) provides a clue; the pronoun *tir* may again appear in the same position as *tirka* and *tirke*, and it also requires the linker between it and the rest of the DP. What I propose is that the linker *el* is actually introducing a (non-restrictive) relative clause in a structure something like that in Fig. 1.5. In that case, demonstratives are like pronouns insofar as they are determiners that are unable to select NP complements.

One final, very important aspect of Palauan noun phrases is the morphosyntactic encoding of possessors. In Palauan, there are two strategies for encoding the possessor–possessee relationship within a DP, given in (21) and (22).

- (21) **POSSESSOR AGREEMENT:** The possessee noun bears a possessor agreement suffix that matches the  $\varphi$ -features of the possessor DP.
- (22) **Er-MARKING:** The possessee noun bears no agreement with the possessor DP, and the possessor DP is preceded by the marker *er*, homophonous with the preposition *er*.

**Fig. 1.5** Demonstrative DPs: pronominal Ds with relative clause structures



The possessor agreement strategy is illustrated in (23) and discussed further below in Sect. 1.2.2.3, and the *er*-marking strategy is illustrated in (24).<sup>8</sup>

- (23) a. a sechelei  
         D friend  
         “the friend”
- b. a secheli-mam  
         D friend-1PL.EXCP  
         “our friend”
- (24) a. a sensei  
         D teacher  
         “the teacher” (Japanese *sensei* “teacher” → Palauan *sensei*)
- b. a sensei er kemam  
         D teacher P us.EXC  
         “our teacher”

Most native Palauan nouns employ the agreement strategy described in (21), and most nominal loans from Spanish, German, Japanese, and English employ the *er*-marking strategy in (22). However, there are many exceptions, such as the English borrowing *tebel* “table” in (25) which hosts possessor agreement and the native Palauan word *llomeserrenng* “wisdom” in (26) which uses the *er*-marker.

- (25) a. a tebel  
         D table  
         “the table” (English *table* → Palauan *tebel*)
- b. a tebel-id  
         D table-1PL.INCP  
         “our table”

---

<sup>8</sup>There is reason to believe that when the strategy described in (22) is employed, *er* is not a preposition when it marks possessors, but is rather something like a genitive case marker. This idea is explored in Chap. 2, Sect. 2.2.1 when examples of possessor ascension are taken into account, like that in (77). Descriptively, when a possessor which would ordinarily be marked with *er* raises to subject position, there is no instance of *er*, contrary to what one might expect if *er* were a simple preposition.

- (26) a. a llomeserreng  
 D wisdom  
 “the wisdom”  
 b. a llomeserreng er kid  
 D wisdom P us.INC  
 “our wisdom”

The morphosyntax of possessor DPs depends on the properties of the possessee noun. Following Georgopoulos (1991a), I assume that Palauan possessors are base-generated in a (rightward) specifier position of the possessee noun phrase, and

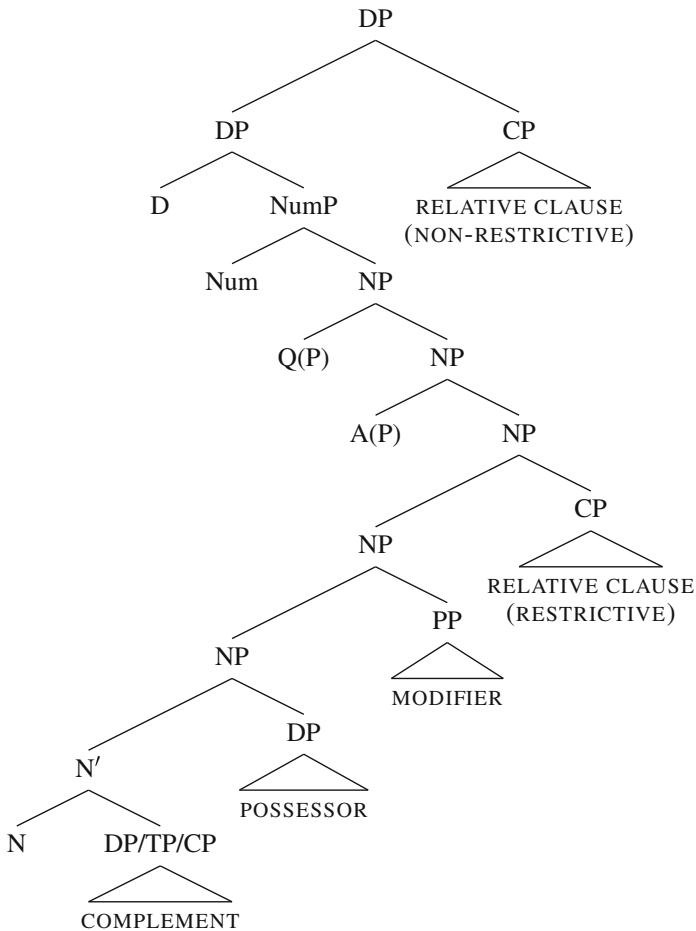


Fig. 1.6 Basic assumptions about Palauan DP-internal structure

something like an m-command relation between the head N and the possessor DP in its specifier can determine whether possessor agreement applies or whether no agreement takes place, perhaps with the aid of PF Spell Out rules.<sup>9</sup>

The structure I propose for Palauan DPs can be seen in Fig. 1.6, which unifies the claims made in various parts of this section. Based on the distribution of the plural marker *re-*, which always appears immediately after the determiner *a* and before any material inside the NP (including modifiers, quantifiers, etc.), I assume a NumP projection between the DP and the NP (see Ritter 1991, 1992 for crosslinguistic motivation). Based on the fact that quantifiers and attributive adjectives both trigger linker morphology, I assume without argument that they are adjoined to the NP. As for relative clauses, I assume (again, without argument) that they attach to either NP or DP, with a difference in interpretation. Relative clauses attaching to NP are restrictive and may optionally precede the N rather than following it, just like adjectives and quantifiers, while relative clauses attaching to DP are non-restrictive and obligatorily follow the D and all of the material in the NP, if there is an NP inside of the DP at all.<sup>10</sup>

### 1.2.2.3 Pronouns and Agreement Morphology

The VOS analysis of Palauan word order depends on an analysis of the preverbal element that indexes the person, number, and animacy features of the subject as subject agreement morphemes rather than pronominal DPs. In other words, if Palauan is VOS, it must be analyzed as a *pro*-drop language. The *pro*-drop analysis appears plausible, and arguments in favor of it are presented in Georgopoulos 1991b: 43–51, to which I refer the curious reader. Consider first the forms of the Palauan pronouns shown in Table 1.4.

The pronouns in Table 1.4 may appear in topic position or after any instance of the preposition/case-marker *er* (which may introduce both argument and non-argument DPs). Interestingly, none of these pronouns may appear overtly in a clause-final subject position, which was one of the original arguments against a VOS analysis of Palauan word order. The only overt indicator of a pronominal subject is the agreement morphology that appears pre-verbally. While clearly related to the pronoun forms in Table 1.4, the subject agreement morphemes, shown in Table 1.5, are nevertheless phonologically distinct from the full pronouns.

Some examples illustrating the ban on overt pronominal subjects are provided below in (27) through (29). In the grammatical (a) examples, there is no pronoun

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<sup>9</sup>cf. Chung's (1982a) analysis of possessors in Chamorro, an Austronesian language closely related to Palauan. In Chung (1998: 46–47), possessors are reanalyzed as occupying the (rightward) specifier position of DP, rather than NP. In Chap. 2, Sect. 2.3, I argue that possessors in Palauan also occupy the specifier of the possessee DP at some stage of the derivation, but likely originate in NP; cf. Fig. 2.9.

<sup>10</sup>While it is clear that embedded clausal arguments in Palauan can extrapose to the right edge of their containing clause, as is shown in Chap. 2, Sect. 2.2.3, it is not clear whether relative clauses in Palauan can also extrapose to the right edge of an NP or DP. I leave the matter to future investigation.

**Table 1.4** Palauan pronouns

		Singular	Plural	
			Inclusive	Exclusive
1st person		<i>ngak</i>	<i>kid</i>	<i>kemam</i>
2nd person		<i>kau</i>	<i>kemiu</i>	
3rd person	[+HUM]	<i>ngii</i>	<i>tir</i>	
	[-HUM]	<i>ngii</i>	∅	

**Table 1.5** (Realis) subject agreement morphemes

		Singular	Plural	
			Inclusive	Exclusive
1st person		<i>ak</i>	<i>kede</i>	<i>aki</i>
2nd person		<i>ke</i>	<i>kom</i>	
3rd person	[+HUM]	<i>ng</i>	<i>te</i>	
	[-HUM]	<i>ng</i>	<i>ng</i>	

pronounced in subject position. When the corresponding pronoun is pronounced in subject position, as in the (b) examples, the sentences are ungrammatical.

(27) a. Ng merang **pro**.  
 3SG= true it  
 “It’s true.” [CB 49]

b. \*Ng merang **ngii**.  
 3SG= true it  
 (“It’s true.”)

(28) a. Te mle bleketakl el olekebai er a re-ngalek **pro**.  
 3PL.+HUM= AUX.PAST openly L restrain ACC D PL-child they  
 “They openly held the children back.” [IK 7]

b. \*Te mle bleketakl el olekebai er a re-ngalek **tir**.  
 3PL.+HUM= AUX.PAST openly L restrain ACC D PL-child they  
 (“They openly held the children back.”)

(29) a. Ak dengchokl er a ulech-al a lius **pro**.  
 1SG= sit P D frond-3SGP D coconut I  
 “I’m sitting on a coconut frond.” [AM 15]



- b. \*Ak dengchokl er a ulech-al a lius **ngak**.  
 1SG= sit P D frond-3SGP D coconut I  
 (“I’m sitting on a coconut frond.”)

The 3rd person subject agreement morphemes *ng* and *te* can freely co-occur with non-pronominal subjects. The generalization to draw from (4) through (29) is that the forms in Table 1.5 are subject agreement morphemes that index the  $\varphi$ -features of the subject DP, and pronominal subjects cannot be pronounced.<sup>11</sup>

Some examples of direct object *pro*-drop are provided below in (30) and (31), while (32) and (33) give examples of possessor *pro*-drop. In the grammatical (a) sentences in (30) through (33), the pronominal direct objects of perfective verbs and pronominal possessors indexed via agreement morphology are not pronounced. When they are pronounced, as in the (b) sentences, the result is ungrammatical.

- (30) a. Ng urreked-ii a chim-al a Rehina e chiltekl-ii **pro**.  
 3SG= hold.PF-3SGO D hand-3SGP D Rehina and PAST.sing.PF-3SGO it  
 “She held Rehina’s hand and sang it.” [KK 6]

- b. \*Ng urreked-ii a chim-al a Rehina e chiltekl-ii **ngii**.  
 3SG= hold.PF-3SGO D hand-3SGP D Rehina and PAST.sing.PF-3SGO it  
 (“She held Rehina’s hand and sang it.”)

- (31) a. A bersoech a chilebeld-kak **pro** me ak  
 D snake TOP PAST.trick.PF-1SGO me so.that 1SG=  
 kill-ii **pro**.  
 PAST.eat.PF-3SGO it  
 “The snake tricked me into eating it.” [Chedaol Biblia, Genesis 3:13]

- b. \*A bersoech a chilebeld-kak **ngak** me ak  
 D snake TOP PAST.trick.PF-1SGO me so.that 1SG=  
 kill-ii **ngii**.  
 PAST.eat.PF-3SGO it  
 (“The snake tricked me into eating it.”)

- (32) a. A rokui el chad er a buai a ongthiall el mo lmuches a  
 D all L people P D public TOP asked.to L AUX.FUT PF.write D  
 uldesu-ir **pro**.  
 thoughts-3PLP they  
 “All interested persons are invited to submit comments.” (approx. “All the people in the community are asked to write their thoughts.”)

[Tia Belau, 26 October 2009]

<sup>11</sup>The situation contrasts somewhat with other *pro*-drop languages which allow—or even prefer—but do not force *pro*-drop, like Spanish for instance. It is worth noting that in Palauan, too, pronominal arguments can be pronounced in the right discourse context, such as contrastive focus. I leave this fact aside without consequence.

- b. \*A rokui el chad er a buai a ongtiall el mo lmuches a  
 D all L people P D public TOP asked.to L AUX.FUT PF.write D  
 uldesu-ir **tir**.  
 thoughts-3PLP they  
 (“All interested persons are invited to submit comments.”)

- (33) a. Ak dirrek el mo omrotech a chim-ak **pro**, e mo  
 1SG= also L AUX.FUT clap D hands-1SGP me and AUX.FUT  
 dobodeb a ngsech-el a reng-uk **pro**.  
 limit.PF D rising-3SGP D heart-1SGP me  
 “I also will clap my hands, and my anger will be over.” (lit. “I also will  
 clap my hands and limit the rising of my heart.”)  
 [Chedaol Biblia, Ezekiel 21:17]

- b. \*Ak dirrek el mo omrotech a chim-ak **ngak**, e mo  
 1SG= also L AUX.FUT clap D hands-1SGP me and AUX.FUT  
 dobodeb a ngsech-el a reng-uk **ngak**.  
 limit.PF D rising-3SGP D heart-1SGP me  
 (“I also will clap my hands, and my anger will be over.”)

Sentences (30) through (33) show that both pronominal direct objects of transitive perfective verbs that bear object agreement morphology and pronominal possessors of nouns that bear possessor agreement morphology must also be null. The object agreement morphemes are shown in Table 1.6. The default possessor agreement morphemes are shown in Table 1.7, but these are subject to variation based on lexically specified theme vowels (see Flora 1974 for analysis; Josephs 1997: 90–97 for the basic patterns; cf. Zuraw 2007).

For the remainder of this book, I assume that Palauan is a *pro*-drop language, and the distribution of overt versus null pronouns is entirely predictable based on their morphosyntactic environments and their featural composition.

**Table 1.6** (Perfective) object agreement morphemes

		Singular	Plural	
			Inclusive	Exclusive
1st person		-ak	-id	-emam
2nd person		-au	-emiu	
3rd person	[+HUM]	-ii	-(e)terir	
	[-HUM]	-ii	∅	

**Table 1.7** (Default) possessor agreement morphemes

		Singular	Plural	
			Inclusive	Exclusive
1st person		-ek	-id	-am
2nd person		-em	-iu	
3rd person	[+HUM]	-el	-ir	
	[-HUM]	-el	-el	

### 1.2.2.4 A' Dependencies and *wh*-agreement

Extensive research has been conducted on the nature of A' dependencies in Palauan, which are quite prevalent in spoken and written discourse. A definitive resource on the subject is Georgopoulos's (1991b) book *Syntactic Variables: Resumptive Pronouns and A' Binding in Palauan*. Georgopoulos analyzes topicalization, clefts and pseudoclefts, relative clauses and free relatives, and *wh*-questions. Examples of these constructions are given below to provide context for the following discussion. Notice that in all the following constructions, a displaced element marked with the subscript<sub>i</sub> co-occurs with either a gap or an overt pronoun in an argument position that is also marked with the subscript<sub>i</sub>. Also relevant is the appearance of the irrealis series of subject agreement prefixes in (34b–d), (35b), (36b), (37b), (38b–d), and (39b–d), which is indicated in the glosses with IRR and is a reflex of Palauan *wh*-agreement, described further below.

#### (34) RELATIVE CLAUSES:

- a. Ak medengel-ii a chad<sub>i</sub> [el mi/cher-ar tia el buk  
 1SG= know.PF-3SGO D person [L PAST.buy.PF-3SGO this L book  
 \_\_\_\_<sub>i</sub> ].  
 <GAP> ]

“I know the person who bought this book.”

[Georgopoulos 1991b: 63, ex. 2a]

- b. Ak mi/s-a a mlai<sub>i</sub> [el l-di/sech-ii \_\_\_\_<sub>i</sub>  
 1SG= PAST.see.PF-3SGO D canoe [L 3S.IRR-PAST.carve.PF-3SGO <GAP>  
 tirke el chad ].  
 those L men ]

“I saw the canoe that those men carved.”

[Georgopoulos 1991b: 63, ex. 2b]

- c. A buik<sub>i</sub> [el k-chi/lebed-ii [a obek-ul \_\_\_\_<sub>i</sub> ]]  
 D boy [L 1SGS.IRR-PAST.hit.PF-3SGO [D older.brother-3SGP <GAP> ]]  
 a secheli-k.  
 TOP friend-1SGP

“The boy whose brother I hit is my friend.”

[Georgopoulos 1991b: 63, ex. 2c]

- d. Tilecha a blai<sub>i</sub> [el l-ulenga er a ngikel er ngii<sub>i</sub> a  
that TOP house [L 3S.IRR-PAST.eat.IMPF ACC D fish P it D  
Robert ].  
Robert ]

“That’s the house that Robert was eating the fish in.”

[Georgopoulos 1991b: 64, ex. 3b]

(35) FREE RELATIVES:

- a. Ng ngar er ngii a [e<sub>i</sub> [melamech a dekoool \_\_\_\_<sub>i</sub> ]] er kemiu?  
3SG= exist P there D [ [smoke D cigarettes <GAP> ]] P you.PL  
“Is there anyone among you who smokes cigarettes?”

[Georgopoulos 1991b: 65, ex. 6a]

- b. Ak medengel-ii a [e<sub>i</sub> [chom-oruul er ngii<sub>i</sub> ]].  
1SG= know.PF-3SGO D [ [2S.IRR-do.IMPF ACC it ]]

“I know what you’re doing.”

[Georgopoulos 1991b: 65, ex. 7b]

(36) CLEFTS:

- a. Ng obek-uk<sub>i</sub> [a [mla mer-ngii a secheli-k  
3SG= older.brother-1SGP [D [AUX slap.PF-3SGO D friend-1SGP  
\_\_\_\_<sub>i</sub> ]].  
<GAP> ]]

“It’s my brother who has hit my friend.” [Georgopoulos 1991b: 66, ex. 11a]

- b. Ng secheli-k<sub>i</sub> [a [bla le-ber-ngii \_\_\_\_<sub>i</sub> a  
3SG= friend-1SGP [D [AUX.IRR 3S.IRR-slap.PF-3SGO <GAP> D  
obek-uk ]].  
older.brother-1SGP ]]

“It’s my friend who my brother has hit.” [Georgopoulos 1991b: 67, ex. 11b]

(37) PSEUDOCLEFTS:

- a. [A [m/ruul er a malk \_\_\_\_<sub>i</sub> ]] a Miriam<sub>i</sub>.  
[D [PAST.make.IMPF ACC D chicken <GAP> ]] TOP Miriam  
“The (one who) cooked the chicken is Miriam.”

[Georgopoulos 1991b: 67, ex. 12a]

- b. [A [l-omtanget er ngii<sub>i</sub> a re-sechal ]] a [chelib-el a uel ]<sub>i</sub>.  
[D [3S.IRR-polish.IMPF ACC it D PL-boy ]] TOP [shell-3SGP D turtle ]  
“The (thing that) the boys are polishing is the turtle shell.”

[Georgopoulos 1991b: 67, ex. 13b]

(38) *Wh*-QUESTIONS (i.e., *wh*-clefts):

- a. Ng techa<sub>i</sub> [a [kileld-ii \_\_\_\_\_ a sub \_\_\_\_\_ ]]?  
3SG= who? [D [PAST.heat.PF-3SGO D soup <GAP> ]]  
“Who heated up the soup?” [Georgopoulos 1991b: 70, ex. 19a]
- b. Ng techa<sub>i</sub> [a [l-uлекod-ir \_\_\_\_\_ a rubak ]]?  
3SG= who? [D [3S.IRR-kill.PF-3SGO <GAP> D old.man ]]  
“Who did the old man kill?” [Georgopoulos 1991b: 70, ex. 19c]
- c. Ng techa<sub>i</sub> [a [chom-uls-a \_\_\_\_\_ [a del-al \_\_\_\_\_ ]]]?  
3SG= who? [D [2S.IRR-see.PAST.PF-3SGO [D mother-3SGP <GAP> ]]]  
“Whose mother did you see?” (lit. “Who did you see his mother?”)  
[Georgopoulos 1991b: 70, ex. 20b]
- d. Ng ker<sub>i</sub> [a [le-bi/sk-au \_\_\_\_\_ a buk er ngii a Ruth ]]?  
3SG= where? [D [3S.IRR-PAST.give.PF-2SGO D book P there D Ruth ]]  
“Where did Ruth give you the book?” [Georgopoulos 1991b: 70, ex. 21a]

## (39) TOPICALIZATIONS:

- a. A sensei<sub>i</sub> a omes er a re-ngalek \_\_\_\_\_i.  
D teacher TOP see.IMPf ACC D PL-child <GAP>  
“The teacher is looking at the children.” [Georgopoulos 1991b: 72, ex. 24a]
- b. A re-ngalek<sub>i</sub> a l-omes er tir<sub>i</sub> a sensei.  
D PL-child TOP 3S.IRR-see.IMPf ACC them D teacher  
“The teacher is looking at the children.” (lit. “The children, the teacher is looking at them.”)  
[Georgopoulos 1991b: 72, ex. 25a]
- c. A ekebil<sub>i</sub> a k-chi/iu-ii \_\_\_\_\_ [a buk er ngii ].  
D girl TOP 1SGS.IRR-PAST.read.IMPf [D book P her ]  
“I read the girl’s book.” (lit. “The girl, I read her book.”)  
[Georgopoulos 1991b: 72, ex. 25b]
- d. Ngak<sub>i</sub> a le-bi/s-kak \_\_\_\_\_i a buk a Harry.  
me TOP 3S.IRR-PAST.give.PF-1SGO <GAP> D book D Harry  
“Harry gave me the book.” (lit. “Me, Harry gave me the book.”)  
[Georgopoulos 1991b: 72, ex. 26b]

Georgopoulos concludes that there is no *A'* movement in any of these constructions. Instead, the displaced element is base-generated in its surface position and binds a null or overt resumptive pronoun variable in its *θ*-position. She presents a wealth of evidence for this analysis, and in my own research, I have found no evidence against it. Three points are particularly striking.

- (40) NO TRACES: The tail of an A' chain must be either a gap or an overt resumptive pronoun, depending on the surrounding environment (see Georgopoulos 1991b: 81).
- (41) *wh*-AGREEMENT: The mood morphology (realis or irrealis) on predicates appearing between the displaced element and its corresponding gap/resumptive pronoun varies based on the grammatical relation either of the gap/resumptive pronoun itself (if it is an argument of the predicate) or of the predicate's argument (DP, CP, TP, etc.) which *contains* the gap/resumptive pronoun (see Georgopoulos 1991b: 84–97).
- (42) NO ISLAND CONSTRAINTS: Palauan allows the full range of island violations (see Georgopoulos 1991b: 80–82; cf. Ross 1967).

As far as (40) is concerned, the above examples in (34) through (39) demonstrate A' constructions containing gaps and overt resumptive pronouns, all marked with the subscript<sub>i</sub>. On Georgopoulos's analysis, all of these positions are filled with pronominal variables, and the conditions under which the pronominal variables are overt or null are the same as the conditions under which normal (non-resumptive) pronouns are overt or null, as described above in Sect. 1.2.2.3. There are no traces created by movement, because there is no *wh*-movement in Palauan.

As for (41), I refer the interested reader to Georgopoulos (1985) and (1991b), and although I have nothing new to add to her analysis of *wh*-agreement in this book, I will provide a brief sketch of the pattern in Palauan.<sup>12</sup> In the handful of languages that have been shown to exhibit it, *wh*-agreement is first and foremost a sort of morphology associated with extraction.<sup>13</sup> In Palauan, the morphological pattern associated with extraction surfaces as an alternation between no subject agreement marking on one hand (associated with subject extraction) and overt irrealis mood morphology on the other (associated with non-subject extraction). The alternation can be seen clearly in (39a), in which a subject is extracted and the verb *omes* does not bear overt subject agreement, versus (39b), in which the same verb is marked with the irrealis subject agreement prefix *l-*. However, as Georgopoulos (1991b: 85)

<sup>12</sup>cf. Gerassimova (2005) for a critique of the *wh*-agreement analysis. Gerassimova offers an interesting alternative analysis in which *wh*-agreement morphology is a remnant of an older Philippine-type voice system.

<sup>13</sup>Other languages that have been shown to have *wh*-agreement include French (in the form of complementizer alternations; see Kayne 1976; Rizzi 1990), Irish (complementizer alternations; see McCloskey 1979), Chamorro (in the form of special verbal inflection; see Chung 1982b, 1998), Kikuyu (special verbal inflection; Clements 1984; Haik 1990), and Berber (in the form of an absence of overt subject-verb agreement; Ouhalla 1993). The discussion of the pattern in Palauan in this section is directly inspired by Georgopoulos's very concise description of the phenomenon (1991b: 84–97).

points out, there is no semantic factor present in (39b) that is not present in (39a) and that would require irrealis morphology. The real contrast is syntactic: the fronted element in each sentence is linked to a different structural position, either subject or non-subject. Variables in indirect object and modifier positions pattern with variables in direct object positions, in that they trigger the appearance of irrealis subject agreement morphology on the verb. Variables in possessor position pattern with the DP inside which they are included (possessors in subject DPs pattern with subjects, and possessors in non-subject DPs pattern with non-subjects). Georgopoulos analyzes the appearance of the morphology as the overt realization of an agreement relation between the verb and the abstract Case (Nominative, Accusative, etc.) of the variable, or of the argument containing the variable if long distance dependencies are involved as in (43). The sentences in (43) contain *wh*-questions in which the *wh*-word *ngera(ng)* “what?” is pronounced in different clauses, triggering irrealis subject agreement each the verb along the chain (in bold).

(43) LONG DISTANCE DEPENDENCIES:

- a. Ke dilu [el te mengiil er ngak [el mo meruul er  
2SG= said [L 3PL.+HUM= wait ACC me [L AUX.FUT do ACC  
a ngerang ]]?  
D what? ]]?  
D what? ]]?
- b. Ke dilu [el te mengiil er ngak [el ng ngera<sub>i</sub> [a  
2SG= said [L 3PL.+HUM= wait ACC me [L 3SG= what? [D  
**bo** **ku-ruul** er ngii<sub>i</sub> ]]]?  
AUX.FUT.IRR 1SGS.IRR-do ACC it ]]]?
- c. Ke dilu [el ng ngera<sub>i</sub> [a **lo-ngiil** er ngak [el **bo**  
2SG= said [L 3SG= what? [D 3S.IRR-wait ACC me [L AUX.FUT.IRR  
**ku-ruul** er ngii<sub>i</sub> ]]]?  
1SGS.IRR-do ACC it ]]]?
- d. Ng ngera<sub>i</sub> [a **chom-dilu** [el **lo-ngiil** er ngak [el **bo**  
3SG= what? [D 2S.IRR-said [L 3S.IRR-wait ACC me [L AUX.FUT.IRR  
**ku-ruul** er ngii<sub>i</sub> ]]]?  
1SGS.IRR-do ACC it ]]]?

(All four sentences) “What did you say that they’re waiting for me to do?”

[Georgopoulos 1991b: 106, ex. 6]

The patterns in (43) clearly show the *wh*-agreement alternations on the verbs that appear between the surface position of the *wh*-word and the pronominal variable *ngii* that it binds. In each sentence, the verbs between these two elements—where “between” might be defined structurally in terms of asymmetric c-command—are inflected for irrealis mood, despite the fact that there are no semantic triggers for irrealis, such as negation. In (43a), the *wh*-word remains in situ, and there is no *wh*-agreement. In (43b–d), the *wh*-word is realized in higher clauses, and the verbs in

these clauses (as well as the clauses they contain) are inflected for irrealis mood to register the A' dependency.

And regarding (42), the data is fascinating—there are no island effects in Palauan, which Georgopoulos takes to be a natural side-effect of her movement-free analysis of A' constructions as variable-binding structures. (44) illustrates a topic linked to a direct object position inside of a relative clause. (45) shows that topics can be extracted from embedded questions. (46) provides an example of a *wh*-question formed from a *wh*-word linked to direct object position inside of a relative clause. (47) shows that relatives can be embedded within relatives.

- (44) [A chelib-el a uel ]<sub>j</sub> a k-ulemes er a re-sechal<sub>i</sub> [el  
[D shell-3SGP D turtle ] TOP 1SGS.IRR-see.PAST.IMPF ACC D PL-boy [L  
omtanget er ngii<sub>j</sub> \_\_\_\_<sub>i</sub> ].  
polish.IMPF ACC it <GAP> ]

“The turtle shell, I was watching the boys who were polishing (it).”

[Georgopoulos 1991b: 80, ex. 37c]

- (45) [A chelib-el a uel ]<sub>j</sub> a diak k-udengei [el kmo ng techa<sub>i</sub> [a  
[D shell-3SGP D turtle ] TOP NEG 1SGS.IRR-know [L C 3SG= who? [D  
ulemtanget er ngii<sub>j</sub> \_\_\_\_<sub>i</sub> ]].  
polish.PAST.IMPF ACC it <GAP> ]]

“The turtle shell, I don’t know who was polishing (it).”

[Georgopoulos 1991b: 81, ex. 38b]

- (46) Ng ngeraj [a chomo-mes er a re-sechal<sub>i</sub> [el omtanget er ngii<sub>j</sub>  
3SG= what? [D 2S.IRR-see.IMPF ACC D PL-boy [L polish.IMPF ACC it  
\_\_\_\_<sub>i</sub> ]].  
<GAP> ]]

“What are you watching the boys who are polishing (it)?”

[Georgopoulos 1991b: 81, ex. 39a]

- (47) Ng techa<sub>k</sub> [a m/dechem-ii [a uel<sub>j</sub> [el m-ulemes er  
3SG= who? [D PAST.catch.PF-3SGO [D turtle [L 2S.IRR-see.PAST.IMPF ACC  
a re-sechal<sub>i</sub> [el omtanget er [a chelib-el \_\_\_\_<sub>j</sub> ] \_\_\_\_<sub>i</sub> ]]]  
D PL-boy [L polish.IMPF ACC [D shell-3SGP <GAP> ] <GAP> ]]]  
\_\_\_\_<sub>k</sub> ].  
<GAP> ]]

“Who caught the turtle that you saw the boys who are polishing its shell?”

[Georgopoulos 1991b: 81, ex. 39b]



On an analysis of A' islands that assumed that moving a displaced DP to the specifier of CP blocked future movement of other DPs to the same specifier, the data in (44) through (47) would be difficult to reconcile. Furthermore, the pronunciation of overt resumptive pronouns in positions that should contain traces or copies of the displaced DP (depending on whether one assumes a trace theory or a copy theory of movement) is mysterious. However, Georgopoulos's GB analysis of A' dependencies actually resembles base-generated analyses of "filler-gap" constructions in Head-Driven Phrase Structure Grammar (see Pollard and Sag 1994; Sag et al. 2003; cf. Gazdar et al. 1985). Instead of containing traces created by movement, the argument position is occupied by a pronoun, which is either overt or silent depending on the usual requirements imposed by *pro*-drop. A movement-free variable-binding analysis leaves open the possibilities that there need not be a silent gap in the argument position and that if something is pronounced in that position, it may be a co-referential pronominal rather than a full copy of its higher antecedent (cf. Alber 2008 for a related but distinct set of facts in Tyrolean German).

### 1.2.2.5 Topicalization

One cannot undertake a study of Palauan syntax without recognizing the syntactic and morphological features of topicalization, which is extremely widespread in Palauan. In elicitation settings, sentences employing topicalization are the absolute norm, and some speakers will even judge non-topicalized counterparts of these sentences as ungrammatical in the absence of a scenario or some more explicit context. In (48) through (51), the (a) sentences are presented in the default VOS word order, and the (b) sentences illustrate topicalization constructions with various elements displaced: subjects as in (48b), possessors of nominal predicates as in (49b), possessors of DP arguments as in (50b), and direct objects as in (39b) above (repeated below as (51b)).

(48) TOPICALIZED SUBJECT:

- a. Ng di meketek **a usbech-ed er a dengki**.  
 3SG= just increase D usage-1PL.INCP P D electricity  
 "Our consumption of electricity is increasing."
- b. [**A usbech-ed er a dengki** ]<sub>i</sub> a di meketek *pro*<sub>i</sub>.  
 [D usage-1PL.INCP P D electricity ] TOP just increase  
 "Our consumption of electricity is increasing." [Tia Belau, 12 October 2009]

(49) TOPICALIZED POSSESSOR OF NOMINAL PREDICATE:

- a. Ng mle soa-k *pro* [el me er tia el iungs ].  
 3SG= AUX.PAST desire-1SGP me [L come P this L island ]  
 "I wanted to come to this island." (lit. "It was my desire to come to this island.")

- b. [Ngak]<sub>i</sub> a mle soa-k *pro*<sub>i</sub> [el me er tia el iungs ].  
 [me ] TOP AUX.PAST desire-1SGP [L come P this L island ]  
 “I wanted to come to this island.” (lit. “Me, it was my desire to come to  
 this island.”) [MI 6]

## (50) TOPICALIZED POSSESSOR OF DP ARGUMENT:

- a. Ng mle sment [a ulol-el **tia el skuul** ].  
 3SG= AUX.PAST cement [D floor-3SGP this L school ]  
 “This school had a cement floor.” (lit. “This school’s floor was cement.”)
- b. [**Tia el skuul**]<sub>i</sub> a mle sment [a ulol-el *pro*<sub>i</sub> ].  
 [this L school ] TOP AUX.PAST cement [D floor-3SGP ]  
 “This school had a cement floor.” (lit. “This school’s floor was cement.”)  
 [IK 38]

## (51) TOPICALIZED DIRECT OBJECT:

- a. Ng omes er **a re-ngalek** a sensei.  
 3SG= see.IMPF ACC D PL-child D teacher  
 “The teacher is looking at the children.”
- b. [**A re-ngalek**]<sub>i</sub> a l-omes er tir<sub>i</sub> a sensei.  
 [D PL-child ] TOP 3S.IRR-see.IMPF ACC them D teacher  
 “The teacher is looking at the children.” (lit. “The children, the teacher is  
 looking at them.”) [Georgopoulos 1991b: 72, ex. 25a]

The descriptive template for topicalizations is roughly [ $\langle$ TOPICALIZED DP $\rangle$  + *a* +  $\langle$ REST OF CLAUSE CONTAINING RESUMPTIVE PRONOUN $\rangle$ ]. As with all the other *A'* dependencies mentioned in Sect. 1.2.2.4, the *wh*-agreement morphology on the verb/predicate (i.e., realis or irrealis mood morphology) depends on the grammatical relation of the resumptive pronoun co-referent with the topicalized DP.

Now, all syntactic research conducted on Palauan that I am familiar with, except for DeWolf (1988), analyzes the *a* morpheme between the topicalized DP and the rest of the clause along the lines of something like (52).<sup>14</sup>

- (52) UNIFIED DETERMINER *a* ANALYSIS: The *a* morpheme is always a determiner. When it appears in topicalizations, it forms a DP constituent with the material to its right. If that material is a non-nominal predicate, it is nominalized so as to be able to combine with *a*, forming a free relative. The topicalized DP and the DP to its right (whether it be a true nominal predicate or a non-nominal predicate that has been subsequently nominalized) form a (null) copular sentence.

<sup>14</sup>DeWolf (1988: 174) suggests that the morpheme *a* that appears in Palauan topicalizations may be cognate with the Tagalog morpheme *ay* which licenses pre-verbal *ang*-marked DPs, which are

On an analysis like (52), topicalizations involving verbal predicates (VPs or vPs, depending on the theory) are treated on par with topicalizations involving nominal predicates (NPs/nPs/DPs, depending on the theory), but the verb phrase must be nominalized. This parity is suggested in (53) below, glossed and bracketed following the analysis in (52) of *a* as a determiner.

- (53) a. [A Juda ] [a ngelek-el a laion ].  
 [D Judah ] [D child-3SGP D lion ]  
 “Judah is the son of a lion.” [Chedaol Biblia, Genesis 49:9]
- b. [A Juda ] [a di/angch ].  
 [D Judah ] [D PAST.recognize (them) ]  
 “Judah recognized (them).” [Chedaol Biblia, Genesis 38:26]

New data suggests that an analysis of Palauan topicalizations along the lines of (52) cannot account for all topicalizations but must be reconciled with a second analysis of topicalization structures, which I propose in (54), following the speculation in DeWolf (1988).<sup>15</sup>

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(Footnote 14 continued)

variously analyzed as either subjects or topics. The pre-verbal position is marked: ordinarily Tagalog is VOS, like Palauan. Consider the Tagalog sentences in (i) and the corresponding Palauan sentences in (ii).

(i) TAGALOG:

- a. Bumabasa ng libro ang maestro.  
 ACTOR.FOCUS.read book teacher  
 “The teacher is reading a/the book.” [DeWolf 1988: 174, ex. 69a]
- b. Ang maestro ay bumabasa ng libro.  
 teacher TOP ACTOR.FOCUS.read book  
 “The teacher is reading a/the book.” [DeWolf 1988: 174, ex. 69b]

(ii) PALAUAN:

- a. Ng menguiu er a hong a sensei.  
 3SG= read.IMPF ACC D book D teacher  
 “The teacher is reading a/the book.” [DeWolf 1988: 174, ex. 70a]
- b. A sensei a menguiu er a hong.  
 D teacher TOP read.IMPF ACC D book  
 “The teacher is reading a/the book.” [DeWolf 1988: 174, ex. 70b]

<sup>15</sup>See Shimoji (2005) for a similar, interesting analysis of Palauan conditionals as topicalization structures marked with *e* instead of *a*. I do not have anything new to add to Shimoji’s analysis of conditionals.

- (54) TOPICALIZER *a* ANALYSIS: The *a* morpheme involved in topicalizations is a topic marker which indicates that the DP to its left is a topic, and I call this instantiation of *a* “topicalizer *a*.” Consequently, topicalizer *a* is not the same morpheme as the (homophonous) determiner *a*, as it does not form a DP constituent with the material to its right.

In many cases of topicalization in Palauan, like those in (53), there is no evidence that favors the Topicalizer *a* Analysis over the Unified Determiner *a* Analysis, and indeed these topicalizations may turn out to be structurally ambiguous. Still, there is evidence that we must accept the Topicalizer *a* Analysis as a possible—if not the only possible—explanation of Palauan topicalization structures.

On the Unified Determiner *a* Analysis in (52), topicalizations are copular sentences that contain two (possibly complex) DPs: the topicalized DP, and a second DP which might contain a nominalized VP or *v*P predicate. On such an analysis, the determiner *a* should exhibit its typical distribution; we would only expect *a* to merge with complements that can form DPs (i.e., noun phrases). We saw above in (17) and (18) from Sect. 1.2.2.2 that the determiner *a* cannot precede pronouns or demonstrative morphemes (which I analyzed as a subclass of pronouns). However, *a* not only can but must precede a demonstrative DP that appears in predicate position if there is a topicalized DP to its left. Note the position of topicalizer *a* in the examples in (55); in all of the sentences, what I analyze as topicalizer *a* uncharacteristically precedes DPs headed by demonstratives.

- (55) a. Tirke el dmeu a reng-rir a [tirke el me-kedidai a  
those L INTR-happy D hearts-3PLP TOP [those L PL-high D  
reng-rir el chad ].  
heart-3PLP L people ]  
“Proud people are the ones who are happy.” (approx. “Those whose hearts are happy are those people whose hearts are high.”)  
[Chedaol Biblia, Malachi 3:15]
- b. Se el ungil el teletel-el a [se el mo-saad a klemerang ].  
that L good L method-3SGP TOP [that L 2S.IRR-explain D truth ]  
“The good way is for you to explain the truth.” (approx. “That which is a good method for it is that in which you explain the truth.”)  
[Tia Belau, 23 March 2009]
- c. A mekngit el chad el ou-cheraro er kemam a [ngka-kid  
D bad L man L VBLZ.IMPF-enemy ACC us.EXCL TOP [this-EMPH  
el Haman ].  
L Haman ]  
“Our enemy, our persecutor, is this evil man Haman!” (approx. “The evil man who has us as his enemy is *this* (person), Haman!”)  
[Chedaol Biblia, Esther 7:6]

- d. A del-ak me a re-ta er ngak a [tirke el chad el orrenge  
 D mother-1SGP and D PL-one P me TOP [those L people L hear  
 a teki-ngel a Dios e oltirakl ].  
 D words-3SGP D God and obey ]

“My mother and brothers are those who hear the words of God and obey (them).”  
 [Chedaol Biblia, Luke 8:21]

If the appearance of *a* after a topic is supposed to serve as the head of a DP that forms a constituent with the material to the right of *a*, the appearance of *a* in any of the examples (55) is entirely surprising because the DPs in question should be headed by demonstratives, which are incompatible with *a*. The data suggests that these instances of *a* that appear after topics are actually not determiners.

Another unexpected pattern on the Unified Determiner *a* Analysis in (52) involves plural marking.<sup>16</sup> Human plural nouns that are referential must be marked for number, whether using a plural demonstrative determiner or the plural number marker *re-*. Number manifests itself morphologically on DPs in a number of ways: on demonstrative determiners, with different sets of numerals that are compatible with different classes of nouns (perhaps a sort of limited classifier system parallel to those of some East Asian languages), and with the plural prefix *re-*. The prefix *re-* may only attach to human<sup>17</sup> nouns, and optionally to some common household animal nouns. It is incompatible with inanimate nouns.<sup>18</sup>

However, predicate nominals with plural human subjects are only optionally marked for plural. If the nominal predicate (with a human plural subject) lacks plural marking, the nominal predicate is interpreted as truly predicational, and the sentence is a predicational (null) copular sentence. If it bears number marking, however, it is treated as referential, and the sentence is a specificational (null) copular sentence (see Mikkelsen (2005) and references therein for more on the typology of copular

<sup>16</sup>I wholeheartedly thank Ruth Kramer for looking over a lot of confusing data with me to help me find clarity in these patterns.

<sup>17</sup>Kramer (2015: 88) analyzes humanness/animacy in Palauan as a type of gender feature, which seems plausible to me in light of the types of agreement phenomena that are sensitive to these features.

<sup>18</sup>Mandarin Chinese (Sino-Tibetan; genetically unrelated to Palauan) is another language in which plural nouns may display additional morphology if they are [+HUM], but not if they are [-HUM] (see Li and Thompson 1981: 40–41; data below in (iii) is from Jesse Saba Kirchner, p.c.).

- (iii) a. tóngzhì “comrade(s)”  
 tóngzhì-men “comrades”  
 b. mǎ “horse(s)”  
 ?mǎ-men “horses”  
 c. shítou “stone(s)”  
 \*shítou-men “stones”

See Smith-Stark (1974) for more on such plurality splits.

clauses). Furthermore, it is worth noting that the plural marker *re-* appears only in the nominal domain. As such, it can be viewed as a piece of evidence that the predicate in a specificational copular sentence has been nominalized.<sup>19</sup>

The relevant contrast can be seen below, between (56) with no plural marking and a predicational interpretation and (57) with plural marking and a specificational interpretation.<sup>20</sup>

(56) [A *re-chad* er a *osbitar* ] a **chad** el *smecher*.  
 [D PL-people P D hospital ] TOP people L *INTR-sick*  
 “The hospital patients are sick people.” PREDICATIONAL

(57) [A *re-chad* er a *osbitar* ] a **re-chad** el *smecher*.  
 [D PL-people P D hospital ] TOP PL-people L *INTR-sick*  
 “The hospital patients are the people who are sick.” SPECIFICATIONAL

However, verbal predicates that are nominalized to form free relatives are obligatorily referential and must bear nominal plural marking with the prefix *re-* if their referent is human. This contrast can be seen below in (58), which shows that the plural marker *re-* is obligatory.<sup>21</sup>

(58) a. [A **re-mo** er a *osbitar* ] a *smecher*.  
 [D PL-go P D hospital ] TOP *INTR-sick*  
 “The (ones who) are going to the hospital are sick.”  
 b. \*[A **mo** er a *osbitar* ] a *smecher*.  
 [D go P D hospital ] TOP *INTR-sick*  
 (“The (ones who) are going to the hospital are sick.”)

Now, on an analysis like (52) in which topicalizer *a* is treated as a determiner that may co-occur with a nominalized *vP*, we would predict the same obligatory plural marker *re-* on DPs containing nominalized *vPs* that refer to human plurals as in (58), regardless of the position of the DP in the syntax. But this is not what we find; in predicate position, the verb need not bear plural marking even if its subject is a human

<sup>19</sup>I offer sincere thanks to an anonymous reviewer for noticing this point and urging me to highlight it here. A full explanation of why nominalization correlates with the specificational interpretation is outside the scope of the present work, but further work on copular constructions in Palauan would undoubtedly prove interesting and aid us more generally in understanding the typology of copular constructions across languages.

<sup>20</sup>See also example (9) in Sect. 1.2.2.2 for a naturally-occurring sentence of the predicational variety.

<sup>21</sup>Note that (58b) is grammatical on the irrelevant interpretation in which the referent described as going to the hospital is singular. What is important in (58a–b) is that when the referent is a human plural, the plural marker *re-* cannot be omitted.

plural as in (59), in which case the *vP* is predicated of the subject DP. When the verb does bear optional plural marking, the *vP* has been nominalized, and the sentence is a specificational copular sentence, as in (60).

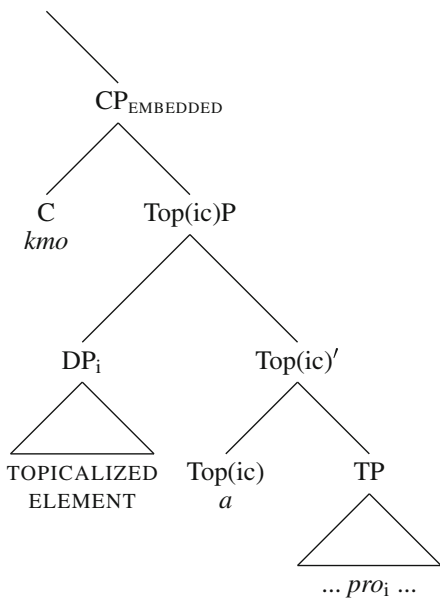
(59) [Tirka el chad el meringel a bder-rir ] a **mo** er a osbitar.  
 [these L people L painful D head-3PLP ] TOP go P D hospital  
 “These people with headaches are going to the hospital.” PREDICATIONAL

(60) [Tirka el chad el meringel a bder-rir ] a **re-mo** er a osbitar.  
 [these L people L painful D head-3PLP ] TOP PL-go P D hospital  
 “These people with headaches are the (ones who) are going to the hospital.”  
 SPECIFICATIONAL

The crucial point is that the predicate in (59)—unlike the predicate in (60)—is verbal and has not been nominalized, and as such it should not be able to co-occur with the determiner *a*. The data therefore suggests that this *a* after the topic in (59) is not a determiner.

The sentences in (55), which contain a usually forbidden instance of *a* before a demonstrative, as well as the unusual optionality of plural-marking in the alternations in (56)–(57) and (59)–(60), are difficult to explain on the Unified Determiner *a* Analysis of topicalization, but they receive a natural explanation on the Topicalizer

**Fig. 1.7** Topicalizer *a* as the head of a syntactic Top(ic) projection



*a* Analysis. Though nothing in the book hinges on a particular syntactic analysis of topicalizer *a*, I suggest that it heads a Top(ic) projection in the syntax, which is located between the CP and TP projections as suggested by the position of topicalized DPs in embedded clauses; the structure is shown above in Fig. 1.7. Consistent with Georgopoulos’s (1985, 1991b) analysis of A’ dependencies in Palauan, I assume for the remainder of this book that topicalized DPs are base-generated in the specifier of Top(ic)P and must A’-bind<sup>22</sup> resumptive pronouns that are base-generated in lower argument positions.<sup>23</sup>

### 1.3 Summary of Key Results

The results of the individual investigations into Palauan syntax are organized in chapters based on the empirical phenomena they treat.

Chapters 2 and 3, entitled “The Morphosyntactic Encoding of Subjects” and “Licensing Internal Arguments” respectively, are largely concerned with clause structure, Case, agreement, and grammatical relations. Through examination of a range of data, I conclude that the VOS analysis of word order is not only motivated structurally, but that a particular structural analysis also makes sense of the somewhat complex agreement patterns that seem to index DPs with particular grammatical relations (subjects, direct objects, and DP-internal possessors). Chapter 2 focuses on subjects—specifically, on the positions in which subject arguments are base-generated and/or pronounced, the mechanisms necessary to derive the patterns of subject agreement, and evidence concerning whether subjects may or must move to a position outside of

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<sup>22</sup>An anonymous reviewer helpfully and correctly points out that binding, rather than co-reference, is the relation that must hold between the topicalized DP and the resumptive pronoun, as neither is required to be referential. This is shown by example (32) on p. 27, in which a quantificational DP is topicalized.

<sup>23</sup>Put differently, I claim that Palauan is a discourse-configurational language, in the sense of É. Kiss (1995: 6), who proposes the following definition of discourse-configurational topics:

“The (discourse-)semantic function ‘topic,’ serving to foreground a specific individual that something will be predicated about (not necessarily identical with the grammatical subject), is expressed through a particular structural relation (in other words, it is associated with a particular structural position).” [É. Kiss 1995: 6]

Languages from a variety of families and spoken across many different regions of the world have been claimed to be discourse-configurational (see É. Kiss 1995: 5 for an extensive list of languages, with references to the original research).

One language that strikes me as having unusually similar properties to Palauan with respect to the syntax of topics is the Mayan language Tz’utujil, spoken in Guatemala. Like Palauan, Tz’utujil is underlyingly VOS, but its topics may occur preverbally in both root and embedded clauses (Dayley 1985; Aissen 1992: 44–45, 71ff., 1999). Aissen analyzes the Tz’utujil topic position as the specifier of a CP which can be selected as the complement to a second C (Aissen 1992: 74, fn. 33; cf. Rizzi and Roberts 1989: 21–22). As far as I can tell, the analysis is structurally identical to the one I propose in Fig. 1.7, except that I use the label Top(ic)P rather than CP for the XP whose specifier is the position in which the topicalized DP is projected.



the main predicate constituent. The phenomenon of possessor (genitive DP) ascension to subject suggests that non-nominative DPs can serve as subjects of clauses as well, leading to an analysis in which finite T can instantiate multiple Agree relations to satisfy different types of requirements, such as  $\varphi$ -feature valuation, Case licensing, and satisfying the EPP (Extended Projection Principle).

Chapter 3 explores the syntax of direct object DPs and the morphosyntax of Accusative Case, focusing on the unusual aspectually-dependent pattern of accusative case morphology and speculating on what it can tell us about the syntax of Palauan verbal predication. I conclude that despite the morphological disparities in accusative case marking, the pattern can be analyzed as the morphological reflex of a uniform process of Accusative Case licensing via Agree with a transitive  $v$  head. I show that although viewpoint aspect is relevant to the morphology of direct objects, it is not realized  $v$ P-internally, a view that is consistent with the literature. Instead, information about viewpoint aspect is introduced outside of  $v$ P and influences  $v$ P-internal morphosyntax via either selection or feature unification. The predictions made by that analysis are tested in the domain of passives, in which the aspectual distinctions are neutralized. The result is that morphosyntactic features corresponding to aspectual information can be distributed across different feature bundles in different languages. Furthermore, the featural composition of “functional heads” in the lexicons of different languages might not be identical across languages, a result in line with the conclusions about the IP domain in Bobaljik and Thráinsson (1998). The important empirical conclusion here is that the modern Palauan correlates of the famous Western Austronesian “voice” morphemes that appear in, e.g., Tagalog and Malagasy, have been reanalyzed as prefixes/infixes that contribute information about category, aspect, voice, argument structure, and valence. This conclusion lays the foundation for the investigation of more complex phenomena in the later chapters and suggests that a morphophonological “verb” is represented syntactically across multiple different heads.

Chapter 4, entitled “Idioms and Lexical Insertion,” investigates a particular class of phrasal idioms in Palauan that describe personality traits and psychological states that include DP arguments whose lexical head is *reng* “heart” or another body part noun. These phrasal idioms have a locality restriction on their subparts, and the *reng*-argument DPs are unable to appear in A' dependency constructions, A-movement constructions that disrupt the precedence/adjacency relations among the idiom chunks, or coordination structures. To account for the locality restriction on idiom chunks, I formulate three versions of a possible constraint on idioms, similar to those in the literature on English VP-idioms. One constraint is structural in nature (roughly, all of the idiom chunks must be within some minimal XP at Spell Out), one is based on I-selection (the idiomatic predicate must simply select the *reng*-DP argument), and the last is defined on linearized strings constructed in the post-syntactic component of the grammar (intuitively, idiom chunks must be next to each other).

The data in Chap. 4 shows that the structural constraint is too strong to account for the distribution and availability of idiomatic interpretations, the constraint based on I-selection is too weak, and so I explore the implications of adopting the post-syntactic constraint on linearized strings. I suggest that the post-syntactic analysis,

in conjunction with the theory of category-neutral roots, predicts the occurrence of synonymous transitive and intransitive variants of idioms if idiomatic predicates are simply roots that can merge either with transitive or intransitive verbalizers (i.e., instances of  $v$ ). Furthermore, the developing system predicts that verbal or adjectival idiomatic predicates should be able to be nominalized, a prediction that is borne out in two different constructions. In the first, the root that would have formed the idiomatic predicate is nominalized, and the associated argument DP becomes a possessor rather than a subject/direct object. In the second, the root associated with the predicate and the root associated with the argument form a compound nominal together, and there is no predicate–argument structure internal to the resulting DP. Finally, the analysis correctly predicts that there are bare nominal idioms (i.e., idioms formed from nouns that are not deverbal or deadjectival), which argues strongly for the category-neutral root theory. If an analysis in this vein is on the right track, we are left with a new type of evidence for the category-neutrality of roots, as well as for a post-syntactic component of the grammar.

Chapter 5, entitled “From Roots to Words to Predicates,” refines the idea that verbalizers are a class of functional heads of the category  $v$ , whose function is to transform a lexical category-neutral root into a full-fledged verbal predicate. The empirical focus of the chapter is on intransitive verbs and adjectives in Palauan, a large subclass of which is formed from the prefix *me-*. The primary question addressed is one of selection versus projection: if a verb is a syntactic object constructed compositionally from a root and a verbalizer  $v$  via the operation Merge, what is the relation that holds between  $v$  and the root? Depending on the answer to this question—e.g., selection, (extended) projection, or something else altogether—one might expect to find many more verbs in a language than are actually attested.

Through investigation of this class of *me-* predicates, I conclude that despite the fact that they are all intransitive, they do not all have a uniform (thematic) argument structure. Nevertheless, they do have a uniform unaccusative syntax, in that the single argument DP of each predicate is base-generated in its complement position as an internal argument, rather than being introduced as an external argument in the specifier of  $vP$ . By considering the familiar diagnostics for agentivity in passives (*by*-phrases, manner adverbials, and purpose clauses) and introducing a new Palauan-specific unaccusativity diagnostic that I call *di ngii*-predication, it is possible to distinguish between members of these subclasses and determine whether (and where) there is any overlap among them. I conclude that the differences between these morphologically similar but syntactically distinct subclasses of intransitive verbs arise both from the features of the particular instance of intransitive  $v/a$  that merges with  $\sqrt{P}$  as well as the features inherent to the root, and that these features must unify, perhaps along the lines of a theory like Grimshaw’s (2005) Extended Projection. In line with the analysis of transitive verbs developed in Chap. 2, I propose that there are (at least) two instances of intransitive  $v$  and at least one instance of  $a$  that are all spelled out as *me-*.

Chapter 6, entitled “Changing Categories,” explores the idea that category-defining heads ( $n$ ,  $v$ , and  $a$ ) can attach not only to  $\sqrt{P}$  to form predicate XPs, but may also attach to larger constituents that are already category-specified. The

empirical focus is on Palauan resultatives, whose syntactic properties suggest that they enter the syntax as roots that are first verbalized as passives (via merge of passive  $v$  with  $\sqrt{P}$ ) and then subsequently stativized, via merge of an additional resultative  $a$  with the passive  $vP$ . The generalization captured is that resultative phrases have the external distribution of adjective phrases but the internal structure of eventive verb phrases, evidenced by their ability to license *by*-phrases and manner adverbials, both of which are incompatible with adjectives and stative verbs. The conclusion is that Palauan resultative  $aPs$  are derived syntactically rather than in the lexicon. If correct, the result aligns with Embick's (2004) and Kratzer's (2000) analyses of English and German resultatives as being derived compositionally, rather than in the lexicon, and further shows that morphophonological words do not necessarily correspond to syntactic XPs.

Finally, Chap. 7 integrates the results into the larger theoretical landscape of morphology and syntax, and discusses how future research could refine it further. The conclusions reached about various elements of linguistic theory (the nature of the lexicon, the operations used to build predicates in the narrow syntax, agreement, and the interface between syntax and morphology) are brought together and placed into the context of current research on the syntax of other languages.

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## Chapter 2

# The Morphosyntactic Encoding of Subjects

Though much research has been dedicated to the nature of Palauan phrase structure, little has been said about the grammatical relations *subject* and *object*. In this chapter and the next, I explore the syntactic and morphological characteristics of argument licensing with two primary goals. The first is to augment our knowledge of the features of argument structure, Case licensing, and agreement in Palauan and cross-linguistically. The second is to lay the foundation for the argumentation and analysis of various morphological and syntactic phenomena in the later chapters, which depend heavily on a clear understanding of grammatical relations.

This chapter begins with an examination of the nature of subjecthood in Palauan, focusing on the positions in which subject arguments are base-generated, how they are licensed, the mechanisms underpinning subject agreement, and evidence that subjects can (and possibly must) move to a position outside of the main predicate constituent. Chapter 3 continues the investigation of grammatical relations, focusing on the licensing of internal arguments as direct objects with an unusual pattern of accusative case morphology, and speculating on what it can tell us about the syntax of Palauan verbal predication. The descriptive generalizations drawn in this chapter and in Chap. 3 lead to the development of two competing hypotheses about how the Palauan verb is built: one hypothesis claims that verb formation occurs in the lexicon, while the other claims that it proceeds syntactically. The investigations that follow in Chaps. 4–6 go on to uncover empirical evidence that can be used to decide whether one of the hypotheses is superior.

As was mentioned in Chap. 1, the question of which DP is the subject of a sentence has received different answers in the Palauan descriptive and theoretical literature. One camp claimed that the subject is the clause-initial DP that I analyzed as a topic in Chap. 1, Sect. 1.2.2.5 (the SVO analysis of word order). The other camp claimed that the subject is the clause-final DP that triggers verb agreement morphology (the VOS analysis of word order). The issue seems to be settled now (see Lemaréchal 1991; Josephs 1994, 1999: Chap. 15), largely due to our improved understanding of grammatical relations in Palauan. Again, I will not review the empirical arguments for the VOS word order analysis here (but see Waters 1980; Georgopoulos 1986, 1991b: 32–42; Josephs 1999: Chap. 15 for details). In this

chapter, I instead sketch out a theory that aims to capture the empirical properties of subject DPs in Palauan, taking the stance that the VOS order is well-motivated enough at this point to assume it without argument.

First, I describe the morphosyntactic properties of subjects, in particular the subject agreement morphology that appears on predicates. Next, I consider a theory in which subjects are base-generated predicate-internally and subsequently move to a higher position, which I claim is the specifier of TP (i.e., the Internal Subject Hypothesis; i.a., Kitagawa 1986/1994; Kuroda 1988; Koopman and Sportiche 1991; McCloskey 1997). Finally, I examine the evidence for this proposal from raising constructions and possessor ascension.

## 2.1 Subject Agreement

Palauan has two sets of subject agreement morphemes, which have been described as correlating with the mood of the clause, realis or irrealis. The realis subject agreement morphemes are listed below in Table 2.1.

The realis subject agreement morphemes have the distribution of clitics: they can be prosodically deficient but are written as separate words. Unlike content words (including full pronouns), they are allowed to contain no full vowels, as Kie Zuraw (p.c.) points out to me: for instance, they may have only schwa (e.g., *ke*, *kede*, *te*) or just a syllabic nasal (e.g., *ng*).<sup>1</sup> They form a prosodic unit with the leftmost element in the TP, whether that be the verb itself as in (61), an auxiliary<sup>2</sup> as in (62), or a preverbal modifier like *dirk* “still,” *di* “just; only,” *blechoel* “sometimes; always,” or *kmal* “often; very” as in (63).

**Table 2.1** Realis subject agreement morphemes

		Singular	Plural	
			Inclusive	Exclusive
1st person		<i>ak</i>	<i>kede</i>	<i>aki</i>
2nd person		<i>ke</i>	<i>kom</i>	
3rd person	[+HUM]	<i>ng</i>	<i>te</i>	
	[-HUM]	<i>ng</i>	<i>ng</i>	

<sup>1</sup>Note, however, that full vowels are *permitted* in realis subject agreement markers, as in *ak* and *kom*. Content words, on the other hand, *must* contain at least one full vowel.

<sup>2</sup>I assume that auxiliaries in Palauan are of category T in the case of past tense *mle* and future tense *mo*, or (outer) Asp in the case of  $\approx$ perfect *mle* or  $\approx$ fientive/change-of-state *mo/mlo*. I leave justification for this categorial analysis for future research, as nothing in this book depends directly on a particular categorial analysis of the Palauan auxiliaries.

- (61) a. **Kom** ngmai *pro* el mo er a bli-l a Oreng.  
 2PL= take.PF you.PL L go P D house-3SGP D Oreng  
 “You take (them) to Oreng’s home.” [OO 11]
- b. **Ng** merael a chais er a beluu.  
 3SG= go D news P D area  
 “A rumor is going around.” [*Chedaol Biblia*, Nehemiah 6:6]
- (62) a. Kemiu e re-ngelekei a kmal chebuul e le [**ng** mla mad a  
 you.PL VOC PL-child TOP very pitiful because [3SG= AUX die D  
 dem-miu ].  
 father-2PLP ]  
 “You, children, are to be pitied because your father has died.” [KC 27]
- b. **Ak** mo remuul [a beluu er a Juda el di mo  
 1SG= AUX.FUT make.PF [D towns P D Judah L just become  
 cheloit el diak a re-chad el kiei er ngii ] *pro*.  
 RES.abandon L no D -person L live P there ] I  
 “I will make the towns of Judah like a desert where no one lives.”  
 [*Chedaol Biblia*, Jeremiah 34:22]
- (63) a. **Ng** dirk ngar er ngii a kall *pro*?  
 3SG= still be P there D food EXP  
 “Is there still any food (left)?” [Josephs 1990: 80]
- b. **Ng** uchul e [**ng** di blechoel el mo meses a eolt ].  
 3SG= reason then [3SG= just always L become strong D wind ]  
 “That’s why the wind always gets strong.” [KC 58]
- c. **Ak** blechoel el meruul a kel-el a Droteo *pro*.  
 1SG= always L make.IMPF D food-3SGP D Droteo I  
 “I always prepare Droteo’s food.” [Josephs 1990: 23]
- d. **Kom** kmal me-saul *pro*<sub>i</sub> [el orrenges er tia el subed  
 2PL= very INTR-tired you.PL [L listen P this L announcement  
 PRO<sub>i</sub> ].  
 you.PL ]  
 “Thank you very much for your attention.” (lit. “You are very tired from  
 listening to this announcement.”) [*Tia Belau*, 15 March 2010]

Although I describe realis subject agreement markers as clitics, my use of the term *clitic* is intended to describe the phonological properties of these markers as well as their surface distribution with respect to other words in the sentence, not to suggest

**Table 2.2** Irrealis subject agreement morphemes

	Singular	Plural	
		Inclusive	Exclusive
1st person	<i>k-, ku-</i>	<i>d-, de-, do-</i>	<i>kim-, kimo-</i>
2nd person	<i>m-, mo-, cho-, chom-, chomo-</i>		
3rd person	<i>l-, le-, lo-</i>		

that they are full pronouns that occupy independent positions in the narrow syntax. I concur with Georgopoulos’s (1991b: 51–59) conclusion that the realis markers are the morphological reflexes of inflection/agreement and not syntactic heads. The nature of how they are inserted is discussed in Sect. 2.2.<sup>3</sup>

The irrealis subject agreement morphemes, on the other hand, behave like true prefixes (and not like clitics). They are listed in Table 2.2. Irrealis subject agreement appears in subjunctive, imperative, negative, and conditional clauses as well as some temporal adverbials. It also appears in clauses that contain an A’ resumptive pronoun that is not (or not within) a subject or predicate nominal phrase—this is the Palauan *wh*-agreement phenomenon described briefly in Chap. 1, Sect. 1.2.2.4 and in greater detail in Georgopoulos (1985), Chung and Georgopoulos (1998), and Georgopoulos (1991b). The irrealis subject agreement morphemes attach directly to the verb as in (64).<sup>4</sup>

(64) a. *Wh*-AGREEMENT:

Ng chebuul [ngike el ngelek-el a chesisebangiau ]<sub>i</sub> [el  
 3SG= pitiful [that L child-3SGP D cardinal honey-eater ] [L  
**ku-lek-ur** a och-il *pro*<sub>i</sub> er a chetebtel a  
 1SGS.IRR-PAST.tie.PF-3SGO D foot-3SG it P D top-3SGP D  
 kemim *pro* ].  
 starfruit I ]

“This baby bird is so pitiful that I’m tying its foot to the top of the starfruit (tree).” [KN 41]

<sup>3</sup>Due to differences between the Government-and-Binding-theoretic machinery and terminology adopted by Georgopoulos and the theory I am adopting in the present work, there might be some confusion that Georgopoulos professes to argue against a clitic analysis of realis subject markers, in favor of an inflectional analysis. To clear up any possible confusion, it should be noted that Georgopoulos (1991b) assumes that clitics are pronouns that occupy their own positions in the syntax. In other words, if an agreement marker is a clitic, it does not appear because of inflection. The version of the theory that I assume is different from that of Georgopoulos (1991b), and I assume that the reflex of inflection might be either a clitic or an affix—a distinction that is more morphological than syntactic. I would like to emphasize that I agree with Georgopoulos that the realis subject agreement markers are not simply pronouns that are inserted into the narrow syntax from a numeration via Merge, despite that fact that I describe them as clitics.

<sup>4</sup>The Palauan bird named *chesisebangiau* in (64a), which corresponds to the English “cardinal honey-eater,” is of the species *Myzomela cardinalis* (Josephs 1990: 56).

## b. IMPERATIVE/SUBJUNCTIVE:

Me **m-otebed-ii** a tekoi me [**le-me-terob**  
 So 2S.IMP-issue.PF- 3SGO D order-2SGP so.that [3S.IRR- INTR-stop  
 tirke el chad el meleketek er a beluu ].  
 those L men L build.IMP ACC D city ]

“Therefore you are to issue orders that those men are to stop rebuilding the city.” (approx. “So issue an order so that those men who are building the city are stopped.”)  
 [Chedaol Biblia, Ezra 4:21]

They may also double on some auxiliaries as in (65a–d).<sup>5</sup> But they need not, and sometimes are realized only on the main predicate and not on the auxiliary, as shown in (65e)

(65) a. *Wh*-AGREEMENT:

A mubi [el **k-bo** **ku-mes** er ngii *pro* ] a  
 D movie [L 1SGS.IRR- AUX.FUT 1SGS.IRR-see ACC it I ] TOP  
 mubi er a Dois.  
 movie P D German

“The movie that I’m going to see is a German movie.”

[Georgopoulos 1991b: 56, ex. 51a]

## b. TEMPORAL ADVERBIAL:

A re-bek el babii el mla mo ungil el odoim a le-blechoel  
 D PL-all L pigs L AUX become good L food TOP 3S.IRR-always  
 el omek-oad se el **le-bo** **le-mekelekolt** a beluu.  
 L CAU-die that L 3S.IRR-become 3S.IRR-cold D land

“All the pigs that are ready to eat are always killed in the winter.”

(approx. “All the pigs that have become good food, they always kill them when the land becomes cold.”)  
 [CB 63]

## c. NEGATIVE:

Ng dirkak [**de-bo** **de-merek** er a  
 3SG= not.yet [1PL.INCS.IRR-become 1PL.INCS.IRR-finished P D  
 subel-ed ].  
 homework-1PL.INCP ]

“We haven’t finished our homework yet.”

[Josephs 1997: 174, ex. 75a]

<sup>5</sup>The facts surrounding multiple realizations of irrealis subject agreement morphology on different words in the same clause are quite murky, despite the attention that has been paid to the phenomenon in the literature (see Josephs 1975, 1997; Georgopoulos 1991b; Campana 2000). While irrealis subject prefixation nearly always appears to be obligatory on the main verb, it is less regular (though still quite frequent) on auxiliaries, as perusal of just about any Palauan language text suggests. At present, I know of no explanation for the irregularity.

## d. CONDITIONAL:

E a **cho-bo**                      **m-rell-ii**                      tiang, e...  
 And D 2S.IRR-AUX.FUT 2S.IRR-do.PF-3SGO this then...

“If you do this, then...” [Chedaol Biblia, Deuteronomy 4:26]

## e. IMPERATIVE/SUBJUNCTIVE:

M-otobed-ii                      a teki-ngem                      me                      [**bo**  
 2S.IMP-issue-3SGO D decree-2SGP so.that [AUX.FUT.IRR  
**le-mok-oad**                      *pro* ].  
 3S.IRR-PASS.CAU-die they ]

“Issue a decree that they are to be put to death.”

[Chedaol Biblia, Esther 3:9]

The data in (64) suggests that both syntactic factors (i.e., non-subject-oriented *wh*-agreement) and semantic factors (i.e., polarity, temporal relations of events, etc.) may condition the presence of irrealis subject agreement morphology in a clause. The next section explores the syntax of subjects, leading up to an analysis of Palauan subjects and their associated subject agreement patterns.

## 2.2 The Syntax of Subjects

Due to the overt morphological reflexes of operations that are sensitive to grammatical relations in Palauan (e.g., passive, *wh*-agreement, causativization, subject and object agreement, and so forth), it seems relatively clear that the notions *subject* and *object* play a prominent role in the clausal syntax. In light of the data presented in the following sections, I wish to consider three hypotheses about Palauan subjects, given in (66) through (68) below.

- (66) OBLIGATORY EPP HYPOTHESIS: All Palauan clauses must have a subject, thematic or expletive, which occupies Spec TP and conditions  $\varphi$ -feature agreement on T. [cf. Chomsky 1982: 9–10, 1986b: 116]
- (67) OPTIONAL EPP HYPOTHESIS: Finite T must bear overt agreement morphology, either indexing the  $\varphi$ -features of the subject in Spec TP or with default 3SG agreement morphology if Spec TP is empty.
- (68) NO EPP HYPOTHESIS: Finite T must bear overt agreement morphology, indexing the  $\varphi$ -features of the highest DP in its c-command domain, which is treated as the subject (or bearing default 3SG agreement morphology if there is no available DP). Spec TP is not filled, and the subject remains in its lower position.

From a cross-linguistic perspective, the hypothesis in (66) is not very radical and certainly not new. Chomsky (1982: 9–10, 1986b: 116) proposes that a requirement like that in (66), together with the Projection Principle, is a fundamental principle of syntax: this is the *Extended Projection Principle*, abbreviated as EPP above. The data in this book strongly suggests that Palauan has a subject position in Spec TP and that (68) is untenable, and while the evidence that this position *must* be filled in Palauan is sparse, it is nevertheless clear. In this section, I will be examining three different aspects of Palauan grammar that involve subjects: expletive insertion, raising constructions, and possessor ascension, discussing the merits of (66) and (67) and whether we can decide between them.

### 2.2.1 Expletive Insertion (or Default Agreement)

In Chap. 1, Sect. 1.2.2.3, I presented data suggesting that Palauan is a *pro*-drop language, and further that pronouns that trigger agreement morphology *must* be null.<sup>6</sup> I represent these null pronouns in the data as *pro*, when necessary. In this section, I consider sentences which contain expletive pronominal subjects in non-*pro*-drop languages such as English for the purpose of comparing them to their Palauan correlates. In non-*pro*-drop languages, the appearance of expletive pronominal subjects is traditionally explained by a need to satisfy the EPP. For example, in English, there are two different expletive pronouns that may appear in subject position: *it* and *there*, shown in (69a) and (70a), respectively.

- (69) a. It rained (in Spain).  
 b. \*Spain rained.

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<sup>6</sup>An anonymous reviewer wonders whether there is evidence in Palauan against a clitic doubling analysis of agreement morphology, which would lend further support to the obligatory *pro*-drop analysis. Georgopoulos (1991b: 51–59) skeptically admits that an analysis of realis subject agreement morphology as clitics might be possible. This analysis would be treating subject agreement as a phonological clitic that is spelled out at the left edge of TP—this is exactly the analysis I advocate here. However, the analysis of agreement as clitic doubling *in general* breaks down once irrealis subject agreement, object agreement, and possessor agreement are taken into consideration, all of which license *pro*-drop as well. Interested readers should consult Georgopoulos’s book directly for the data. Her arguments against the clitic doubling hypothesis include failures of several of Zwicky and Pullum’s (1983) tests for clitics, including morphological and paradigmatic regularity and a lack of selectivity and arbitrary gaps. On the basis of these tests, it seems clear that irrealis subject agreement morphemes, object agreement morphemes, and possessor agreement morphemes must be inflectional affixes rather than pronominal clitics, lending further support for the *pro*-drop analysis. Furthermore, and for reasons unknown to me, [3PL, –HUM] pronouns can be null in direct object and possessor position even when they are not indexed by agreement on the head. As such, *pro*-drop is not an unfamiliar feature of the language, regardless of whether it is possible to analyze agreement morphology as clitic doubling.

- (70) a. As soon as he turned the light off, there appeared a strange figure in the window.  
 b. As soon as he turned the light off, a strange figure appeared in the window.  
 c. \*As soon as he turned the light off, appeared a strange figure in the window.

In Palauan, there is no overt DP correlate of either the English expletive *it* in (69a) or the English expletive *there* in (70a). Consider the case of sentences with so-called zero-place weather predicates in (71), which in English require the insertion of expletive *it*.

- (71) a. **Ng** chull.  
 3SG= rain  
 “It’s raining.”
- b. **Ng** mle mekelekolt.  
 3SG= AUX.PAST cold  
 “It was cold.” [Chedaol Biblia, Acts 28:2]
- c. [**Ng** dirk mellomes ] e ng sokol el mo bad.  
 [3SG= still light ] but 3SG= feel.like L become rock  
 “It is still light out but he feels like going to sleep.” (lit. “It is still light but he feels like becoming a rock.”) [CB 31]
- d. **Ng** mo-chu klebesei.  
 3SG= become-ATC night  
 “It will be dark soon.” (approx. “It is about to become night.”)  
[Chedaol Biblia, Judges 19:9]

Interestingly, all of the weather predicates in (71) take the 3SG subject agreement clitic *ng* even though there does not appear to be a subject in any of their clauses, assuming that weather predicates assign no  $\theta$ -roles and select no DP arguments. If one accepts the Obligatory EPP Hypothesis in (66), a natural explanation for the agreement morphology is that clauses containing zero-place predicates insert a (default) 3SG expletive pronoun in subject position, which then conditions the appearance of the 3SG subject agreement clitic *ng*, as in other languages like Icelandic and Italian. But given the *pro*-drop properties of Palauan, these expletive pronouns, like all subject pronouns, must be null, as has also been argued for the closely-related language Chamorro (Chung 1998: 68–69). On the other hand, the data in (71) is also consistent with the Optional EPP Hypothesis in (67) and the No EPP Hypothesis in (68): on both of these hypotheses, there is no expletive (overt or null) in these sentences, but the verb exhibits default 3SG agreement.



Next, consider the variable subject agreement patterns in existential constructions. Palauan existentials are formed from the complex predicate *ngar er ngii* “exist” (approx. “be there”), which inflects for past tense as *m̄la er ngii* “existed” and future tense as *mo er ngii* “will exist,” and may combine with the aspectual auxiliary *m̄la* in *m̄la ngar er ngii* ≈ “have existed.” An existential takes the form [SUBJECT AGREEMENT + *ngar er ngii* + PIVOT DP (+ SUBJECT DP)], but it is often the case that there is only one DP that acts as both the pivot DP and the subject DP—the case of canonical existentials. Existentials of possession, described below, can have a subject DP that triggers agreement, distinct from the pivot. Some examples of the canonical existential construction are given below in (72).

- (72) a. A irechar e [ng m̄la er ngii [a ta el chelid [el  
 D earlier.times then [3SG= was P there [D one L god [L  
 ngkl-el a Meluadeangel ]]].  
 name-3SGP D Meluadeangel ]]]  
 “Once upon a time, there was a god named Meluadeangel.” [CM 7]
- b. A l-sekum [te ngar er ngii [a re-mo 50 el  
 D 3S.IRR-case [3PL.+HUM= be P there [D PL-AUX.FUT 50 L  
 mele malt el chad [el ngar er se el beluu ]]], e...  
 innocent L people [L be P that L city ]]] then...  
 “If there are fifty innocent people in the city...”  
 [Chedaol Biblia, Genesis 18:24]

The pivot DPs in (72a) and (72b) are singular and plural, respectively, as indicated both by the numerals contained within the DPs, i.e., *ta* “one” and *50*, and the human plural marker *re-* in (72b). Interestingly, the subject agreement clitic preceding the form of *ngar er ngii* appears to agree with the pivot DP in each of the two sentences: 3SG *ng* appears in (72a) while 3PL *te* appears in (72b). The variant forms of subject agreement morphology in (72) suggest that the pivot DP is also the subject of the clause. But since movement of the pivot DP to Palauan’s rightward-branching Spec TP position would be string-vacuous, the structural location of the pivot DP is not clear. In some languages, finite T can Agree with a lower DP without moving it to Spec TP, as appears to be the case in English existentials when the expletive *there* is overt but agreement matches the features of the pivot rather than the expletive subject, and in Irish where there is no expletive and the pivot has been shown to occupy a predicate-internal subject position (see McCloskey 1996, 2014).

In this vein, there is reason to suspect that while the pivot DP may also be the subject of the clause, it need not necessarily be. In the examples below in (73), we see instances of the 3SG subject agreement clitic *ng*, despite the fact that the pivot DP in each example is a human plural, as indicated by the presence of the human plural marker *re-* in each of the pivot DPs.

- (73) a. ...**ng** di **ngar er ngii** [a re-450 el profet er a Baal ].  
 ...3SG= be P P there [D PL-450 L prophets P D Baal ]  
 “... but there are 450 prophets of Baal.” [Chedaol Biblia, 1 Kings 18:22]
- b. **Ng ngar er ngii** [a re-mla omerrous [el ngar er a  
 3SG= be P there [D PL-AUX dream.about [L be P D  
 chels-el ngii el beluu ]].  
 space.inside-3SGP it L place ]]  
 “There are (one)s (who) have dreamed about being in that place.”  
 [KC 92]
- c. **Ng mla er ngii** [a re-bebil el chad [el dimlak  
 3SG= was P there [D PL-some L people [L PAST.NEG  
 le-k/ikiid e le [te rirtech-ii  
 3S.IRR-RES.absolve because [3PL.+HUM= PAST.touch.PF-3SGO  
 a bedeng-el a ulek-oad el chad ]]].  
 D body-3SGP D RES.CAU-die L person ]]  
 “There were some people who were ritually unclean because they had  
 touched a corpse.” [Chedaol Biblia, Numbers 9:6]

The sentences in (73) provide some evidence against the No EPP Hypothesis in (68), because subject agreement is 3SG but there is an available DP with plural  $\varphi$ -features that could serve as the goal. We observe what might be default 3SG agreement anyway, for no apparent reason. These sentences are, however, compatible with the Obligatory and Optional EPP Hypotheses in (66) and (67) if we allow for the existence of null expletive pronominals. T clearly cannot be agreeing with the pivot DP: if it were, the subject agreement clitic should be *te*, as it is in (72b). But if we posit an agreement relation with an expletive, then the 3SG agreement makes sense.<sup>7</sup> Note that we would be forced to say that Palauan expletive pronominal subjects have to be null because they trigger morphological agreement just like non-expletive pronouns, which are null under the same conditions.

A natural question to ask at this point is whether the subject position that a null expletive might occupy can contain other types of DPs, e.g., full overt DPs or referential, non-expletive pronominals. It appears that the answer is yes. As mentioned above, one further use of the Palauan existential construction is to express possession relations. There is no Palauan verb that corresponds directly to English “have.” Instead, an existential construction with a possessive DP in pivot position expresses the relation of possession, for example in (74).

<sup>7</sup>As Kie Zuraw points out to me, the situation is reminiscent of English examples like (i), which are completely grammatical in my dialect of English, provided the 3SG form of *be* (*is*) is contracted with *there*.

(i) There’s three presents under the tree.

- (74) a. Ng **ngar er ngii** [a dem-miu *pro* ]?  
 3SG= be P there [D father-2PLP you ]  
 “Do you have a father?” (lit. “Is there your father?”)  
[*Chedaol Biblia*, Genesis 44:19]
- b. Ng **ngar er ngii** [[a kekere el udud-ek *pro* el silber]<sub>i</sub> [el  
 3SG= be P there [[D small L money-1SGP me L silver] [L  
 sebec-ek [el mo ms-ang *pro* \_\_\_\_<sub>i</sub> ]]].  
 ability-1SGP [L AUX.FUT give.PF-3SGO him <GAP> ]]]  
 “I have a small silver coin that I can give him.” (lit. “There is my small  
 silver coin that I can give him.”)  
[*Chedaol Biblia*, 1 Samuel 9:8]

In existentials of possession like those in (74), there is morphosyntactic evidence that the possessor DP can serve as the subject of its containing clause. For instance, the examples below in (75) contain relativized non-subject DPs that lack possessors (compare *secher* “sickness” to *secherek* “my sickness” and *tia el beluu* “this village” to *tia el beluad* “this village of ours”).<sup>8</sup> But they are also relativized, with their (logical) possessors inside of the relative clause that they head.

- (75) a. Ng diak le-ua secher<sub>i</sub> [el **k-ngar er ngii** \_\_\_\_<sub>i</sub>  
 3SG= NEG 3S.IRR-like sickness [L 1SGS.IRR-be P there <GAP>  
*pro* ], e chelik!  
 I ] and EMPH  
 “It’s not like the sickness that I have!”  
[Posted  
 on MySpace user *princessrasireib*’s message board on 31 January 2010 at 7:40AM by  
 MySpace user *sechei*. URL: <http://comment.myspace.com/index.cfm?fuseaction=user.viewComments&friendID=55331375>]
- b. [Tia el beluu<sub>i</sub> [el **de-ngar er ngii** \_\_\_\_<sub>i</sub> *pro* ]]<sub>j</sub> a  
 [this L village [L 1PL.INCS.IRR-be P there <GAP> we.INC ]] TOP  
 diak [le-ua beluu er a Oreor \_\_\_\_<sub>j</sub> ].  
 NEG [3S.IRR-like city P D Koror <GAP> ]  
 “This village of ours is not like the city of Koror.”  
[AM 8]

The syntax of the construction in (75) merits further study, but at present, I assume that the possessors occupy a position external to the possessed DP in these sentences (perhaps having raised from a rightward-branching specifier of the DP headed by a resumptive pronoun, combining Georgopoulos’s (1991a) analysis of possessors and Georgopoulos (1991b) analysis of relative clauses), allowing the

<sup>8</sup>See Keenan and Ralalahoerivony (2000) for a description of several similar constructions in Malagasy.

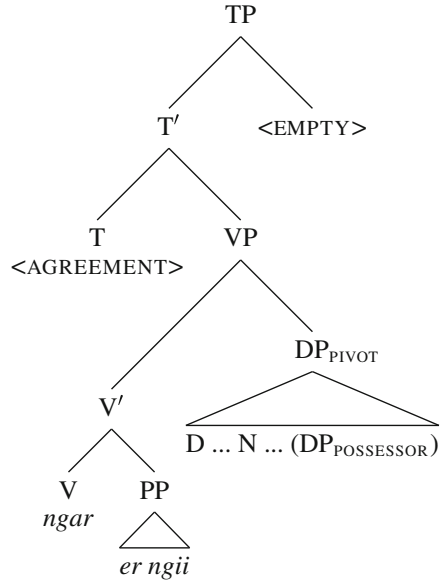
(external) head of the relative clause to appear without associated possessor agreement morphology. That the relativized DPs are not subjects is indicated by the (irrealis) *wh*-agreement morphology in the relative clause (see Chap. 1, Sect. 1.2.2.4, as well as Georgopoulos 1985, 1991b for details), which shows that *ngar er ngii* and *dengar er ngii* agree with (null) pronominal subjects corresponding to the possessors “I” and “we.” This somewhat intricate promotion of a DP-internal possessor to subject is examined in more detail below in Sect. 2.2.2, but it suffices to note the evidence for two DP positions in existential constructions: a subject position and a non-subject (pivot) position.

Interestingly, it appears as though possessor ascension is not limited to possessors of nouns that trigger possessor agreement, but also possessors that instead bear the marker *er*, such as in (24) in Chap. 1. Recall that some nouns require that their possessors be marked with *er*, like *klechelid* “religion” in (76). While this marker *er* is homophonous with the preposition *er*, there is no trace of *er* when the (logical) possessor is the subject of the clause. This can be seen in (77), in which a *wh*-cleft of the pivot DP results in irrealis subject agreement morphology matching the features of the (logical) possessor, which has become the subject.

- (76) a. A **klechelid er tirka el chad** a diak a belk-ul.  
 D religion P these L people TOP not.exist D purpose-3SGP  
 “The religion of these people is worthless.” [Chedaol Biblia, Jeremiah 10:3]
- b. A king a mo ousbech a cheleblad el mengesuseu er  
 D king TOP AUX.FUT need.IMPF D deceptively L lure.IMPF ACC  
 tirke el mla choit-ii a **klechelid er tir**.  
 those L AUX abandon-PF.3SGO D religion P them  
 “By deceit the king will win the support of those who have already abandoned their religion.” [Chedaol Biblia, Daniel 11:32]
- (77) Ng ngara el klechelid<sub>i</sub> a **chome-ngar er ngii** \_\_\_\_<sub>i</sub> pro?  
 3SG= what? L religion D 2S.IRR-be P there <GAP> you  
 “What’s your religion?” (approx. “What religion do you have?”)  
 [Josephs 1990 : 123]

If the 2nd person irrealis subject agreement on the existential predicate *ngar er ngii* in (77) is the result of possessor ascension of a 2nd person pronominal DP, then it seems as though possessors that are marked with *er* are not PPs but are instead DPs—just as possessors that trigger agreement are—since PPs cannot be subjects. This may give us reason to believe that *er* is not a preposition when it marks possessors, but is rather something like a genitive case marker, as was briefly considered in Chap. 1. The sentences in (76) show that *klechelid* “religion” requires its possessor to be marked with *er* rather than indexed via possessor agreement, but

**Fig. 2.1** Proposed structure for Palauan existentials



when possessor ascension applies, as in (77), no instance of *er* remains stranded, contrary to what one might expect if *er* were a true preposition.

I propose that the (underlying) syntax of Palauan existentials looks something like the schema in Fig. 2.1. In that structure, I assume that the specifier of TP is the subject position, and the DP that occupies that position will condition subject agreement. The three variants of existentials described below produce the surface patterns we’ve observed above.

1. If there is a possessor DP in the specifier of the pivot DP, the possessor DP can raise to the subject position, resulting in subject agreement with the possessor as in (75) and, evidently, (77).<sup>9</sup> If the possessor DP strands the rest of the pivot DP in its base position, the stranded pivot DP is available to participate in A’ dependencies to the exclusion of the possessor DP, which remains in the specifier of TP; this is what we see in (75) and (77). There is no problem with the binding of the trace created by possessor raising because A’ dependencies are base-generated, and the constituent containing the possessor DP’s trace does not move.<sup>10</sup>

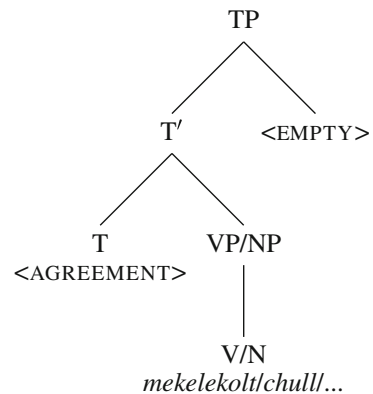
<sup>9</sup>While there is no correlate of this construction in English, unless one counts “I have some friends over there” as a variant of existential (i.a., Freeze 1992), there are correlates of the construction in other languages, which is discussed in Chap. 4.

<sup>10</sup>A more serious question is how the pivot is Case-licensed in instances where the possessor raises to the subject position. While it has been shown that many languages on the Formosan branch of Austronesian have existential constructions with nominative pivots (see Zeitoun et al. 1999

2. The entire pivot DP can raise to the subject position, whether or not it contains a separate possessor DP, and trigger subject agreement, e.g., in (72b) and possibly also (72a) and (74).
3. There is no (overt) subject, but the existential predicate bears 3SG subject agreement, e.g., in (73).

This third variant is perhaps particularly interesting—if mystifying—in light of our investigation into subjecthood in Palauan and the extent to which Palauan obeys the EPP. One conclusion that is tempting to draw about Palauan subjects based on this third type of existential sentence is that Palauan clauses must contain null expletive subjects in Spec TP, as there are no thematic DPs available which are singular and can trigger singular subject agreement. Such a conclusion would be consistent with the Obligatory EPP Hypothesis in (66). If we take for granted for a moment that null expletives in Palauan exist, these null expletives would be non-thematic and pronominal, just as in more familiar languages, but would be forced to be unpronounced due to *pro*-drop, like other pronominal DP subjects are. Null expletives would be optional in Palauan existentials,<sup>11</sup> but they would have to be obligatory in

**Fig. 2.2** Proposed structure for zero-place weather predicates



(Footnote 10 continued)

for a typology of existentials in ten Formosan languages), other Western Malayo-Polynesian languages like Tagalog treat pivots exclusively as internal arguments (see Sabbagh 2009: 682–683).

The issue is a confusing one, and it is reminiscent of the issues surrounding why pivots of *there is*-existentials in English are marked with nominative case but corresponding pivots of *es gibt*-existentials in German are marked with accusative case. A broader cross-linguistic study of existential constructions is necessary to determine why such variability manifests itself in the Case/case of pivot DPs.

<sup>11</sup>Cf. Chung's (1998: 68–69, 183) analysis of null expletives in Chamorro existentials. Unlike Palauan existentials, Chamorro existentials invariably display 3SG subject agreement, suggesting that the insertion of a null expletive pronominal subject is obligatory, rather than just one of several options.

clauses containing zero-place weather predicates. I propose the (underlying) structure in Fig. 2.2 for weather predicates.

While the specifier of TP is empty in both Figs. 2.1 and 2.2, there are no DPs that can move to fill the specifier of TP in Fig. 2.2, since zero-place weather predicates do not select any DP arguments. Consequently, the option to insert a null 3SG expletive subject in existentials would become the only possibility in clauses containing weather predicates, if one assumes that Palauan obeys the EPP. The subject agreement morphology is then invariably 3SG *ng* (realis) or *l(e)-* (irrealis) because it reflects the features of the default 3SG expletive pronoun that occupies the specifier of TP.

An alternative account of the constructions discussed here, as pointed out by an anonymous reviewer, is that the sentences in question do not have subjects at all—not even *pro* subjects—but there is a requirement that finite T must bear agreement morphology. Such an analysis is incompatible with the Obligatory EPP Hypothesis in (66), but it is entirely compatible with both the Optional EPP Hypothesis in (67) and the No EPP Hypothesis in (68). As of yet, we have not seen any empirical evidence in favor of null expletives in the domain of weather-predicate sentences or existentials, which is perhaps surprising as these are sometimes considered to be prototypical examples of expletive constructions. The choice between an analysis that assumes that null expletives trigger 3SG agreement and an analysis that assumes that default 3SG agreement appears because agreement is simply required can only be motivated theoretically at this point. In Sect. 2.2.3.2, after we examine the evidence from *wh*-agreement that Spec TP must be filled, the notion that null expletives must be present in these constructions consequently receives considerably stronger support.

While this situation may strike some readers as frustrating, in particular those who are accustomed to studying languages with overwhelming evidence for some flavor of the Obligatory EPP Hypothesis in (66), it is nevertheless fascinating that various grammatical phenomena in Palauan (rightward-branching specifiers and *pro*-drop in particular) conspire to render the adoption of such a hypothesis in Palauan questionable. In the next few sections, I hope that any frustration might be assuaged by data that shows much more convincingly that Palauan does have a subject position in Spec TP, and that the confusion about the EPP is reduced to whether it *must* always apply or rather *can* sometimes apply. Either way, the No EPP Hypothesis in (68) is rejected in due course.

## 2.2.2 Possessor Ascension

In this section, I explore the possessor ascension phenomenon in (75) in greater detail. Although possessor ascension was presented in the context of possessive existentials, it is actually far more pervasive. For instance, consider the contrast between (78a–b).

- (78) a. AGREEMENT WITH ENTIRE POSSESSED DP:  
**Ng** me-kemanget [**a chim-rir** [**a rubek-uk** ]].  
 3PL.–HUM= PL-long [D arms-3PLP [D older.brothers-1SGP ]]  
 “My older brothers’ arms are long.” / “My older brothers are generous.”
- b. AGREEMENT WITH POSSESSOR DP ONLY:  
**Te** me-kemanget [a chim-rir  $t_i$  ] [**a**  
 3PL.+HUM= PL-long [D arms-3PLP ] [D  
**rubek-uk** ]<sub>i</sub>.  
 older.brothers-1SGP ]  
 “My older brothers’ arms are long.” / “My older brothers are generous.”

The subject agreement pattern is familiar from what we saw above in the existential construction: subject agreement appears to be able to index the  $\varphi$ -features of either the entire DP argument of *mekemanget* “long” or just its possessor DP. On the Obligatory EPP Hypothesis, the DP that triggers subject agreement must also occupy Spec TP, and we would have to assume that possessor ascension has applied in (78b). In my fieldwork, I have found that possessors within argument DPs may become subjects only if they bear a whole–part relation to the possessed noun, for whatever reason. This restriction does not seem to hold if the possessor is in a predicate nominal, e.g., the possessors of the modal nominals discussed below and listed in Table 2.3. To illustrate, compare (78) with (79) below.<sup>12</sup>

<sup>12</sup>An anonymous reviewer reminds me that a similar restriction has been reported in other languages such as Malagasy, but with some counterexamples. Compare (79) with (ii) below, particularly sentence (c) which illustrates a grammatical counterexample.

- (ii) MALAGASY:
- a. Finaritra ny zazan’ ny vehivavy.  
 happy D child.L D woman  
 “The woman’s child is happy.”
- b. \*Finarijaza ny vehivavy.  
 happy-child D woman  
 (“The woman has a happy child.”)
- c. Marary zaza ny vehivavy.  
 sick child D woman  
 “The woman has a sick child.” (Implies that the woman is directly adversely affected by the fact that her child is sick.) [Anonymous Reviewer, p.c.]

It could very well be that additional or even different discourse or semantic factors may play a role in determining whether or not possessors can be extracted and move to subject position. The phenomenon (with similar restrictions) has been reported for languages in Southeast Asia, including other Austronesian languages (see Bell 1983 for Cebuano, Oey 1990 for Malay, and Keenan and



**Table 2.3** Palauan modal nominals

3sg possessor form	Modal interpretation	Literal meaning of NP
<i>sebech-el</i>	Can/able to/may/allowed to	x's ability
<i>kir-el</i>	Must/have to/should/ought to	x's obligation/(for) x's sake
<i>so-al</i>	Want to/like to/love to	x's desire
<i>chet-il</i>	Not want to/dislike to/hate to	x's distaste

(79) a. AGREEMENT WITH ENTIRE POSSESSED DP:

**Ng** mesaul [**a dem-rir** [a **re-ngalek** ]].  
 3SG= tired [D mother-3PLP [D PL-child ]]  
 “The children’s mother is tired.”

b. AGREEMENT WITH POSSESSOR DP ONLY:

\***Te** mesaul [a dem-rir  $t_i$ ] [a **re-ngalek** ]<sub>i</sub>.  
 3PL.+HUM= tired [D mother-3PLP ] [D PL-child ]  
 (“The children’s mother is tired.”)

Still, data like that in (78) only tells us about subject agreement, not subject movement or subject positions. If there is any movement of a DP to Spec TP in (78), it is string-vacuous. The co-indexed trace in (78b) illustrates the change in constituency that this type of string-vacuous movement of the possessor to Spec TP would yield, cf. (78a).

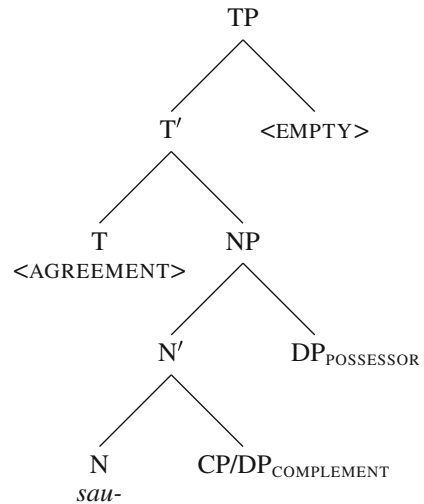
Interestingly, there is a different possessor ascension construction that is even more common than the construction in (78). This construction involves the small but frequently-employed class of modal nominals, introduced in Chap. 1, Sect. 1.2.2.2 and listed in Table 2.3.<sup>13</sup> What is interesting about this class of nominals for present purposes is that it reveals additional facts about subject movement that possessor

(Footnote 12 continued)

Ralalaoherivony 2000 for Malagasy), Kadai languages (see Gerner 2005 for Kam/Dong), Hmong-Mien/Miao-Yao languages (see Jaisser 1990 and Riddle 1999 for White Hmong), Mon-Khmer languages (see Huffman 1970 for Khmer/Cambodian and i.a., Nguyễn Đăng Liêm 1970 for Vietnamese), Thai (see Iwasaki 2002), and probably others. See Matisoff (1986) and Clark (1996) for comparisons among Southeast Asian languages.

<sup>13</sup>Table 2.3 is adapted from Georgopoulos (1991a: 220, ex. 7). Georgopoulos calls the nouns in Table 2.3 *psych predicates*, to emphasize the link between her analysis and those of Stowell (1986) and Belletti and Rizzi (1988), both of which claim that internal argument DPs of psych predicates move out of the predicate phrase, either in the overt syntax (Belletti and Rizzi) or at LF (Stowell). While I think that the term *psych predicate* is a misnomer for the elements as a class (it is not clear how the interpretations of *sebechel* and *kirel* that correspond to *can* and *must*, respectively, can be construed as psychological), the terminology makes no difference. Georgopoulos’s aim is to capture the intriguing subject agreement patterns that arise when *soal* and *chetil* select DP complements instead of their standard CP complements, parallel to transitive *like* and *dislike* in English. The resulting analysis is fascinating.

**Fig. 2.3** Georgopoulos's base structure for *soal*



ascension constructions like those in (75) and (78) do not. Georgopoulos (1991a) analyzes the class of modal nominals as NP predicates, i.e., NP complements to T, which must have a possessor DP and may select either a DP or CP complement. The structure that Georgopoulos (1991a: 226, ex. 21) proposes for modal nominals is along the lines of that in Fig. 2.3.

When there are two DP arguments in the NP predicate (both a possessor DP and a complement DP), either of the two DPs (or neither) can trigger subject agreement. But in order for a DP to do so, it must also be the rightmost DP in the string. Consider the data below in (80). In each sentence, the subject is *italicized* (including *pro*) and the subject agreement clitic is in **bold**.

- (80) a. **Ng** *so-rir* *kemam* a re-buik *pro*.  
 3SG= desire-3PLP us.EXC D PL-boy EXP  
 “The boys like us.” (approx. “It is the boys’ desire of us.”)  
 [Georgopoulos 1991a: 225, ex. 20a]
- b. **Te** *so-rir* *kemam* a re-buik.  
 3PL.+HUM= desire-3PLP us.EXC D PL-boy  
 “The boys like us.” (approx. “The boys desire us.”)  
 [Georgopoulos 1991a: 224, ex. 16b]
- c. **Aki** *so-rir* *t<sub>i</sub>* a re-buik *pro<sub>i</sub>*.  
 1PL.EXC= desire-3PLP D PL-boy we.EXC  
 “The boys like us.” (lit. “We are the boys’ desire.”)  
 [Georgopoulos 1991a: 225, ex. 18c]

- d. \***Aki**        so-rir        kemam *a re-buik*.  
 1PL.EXC= desire-3PLP us.EXC D PL-boy  
 (“The boys like us.”)
- e. \***Ng**        so-rir         $t_i$  a re-buik *kemam\_i*.  
 3SG= desire-3PLP D PL-boy us.EXC  
 (“The boys like us.”) [Georgopoulos 1991a: 230, ex. 22a]
- f. \***Te**        so-rir         $t_i$  a re-buik *kemam\_i*.  
 3SG= desire-3PLP D PL-boy us.EXC  
 (“The boys like us.”)

In (80a), the 3SG subject agreement morpheme *ng* does not agree with either of the two DP arguments of *sorir*: the complement *kemam* “us” or the possessor *a rebuik* “the boys.” It either indexes the 3SG features of a null expletive (consistent with the Obligatory EPP Hypothesis), or simply appears as default 3SG agreement due to a requirement that finite T bear agreement (consistent with the Optional EPP Hypothesis and the No EPP Hypothesis). However, (80b) shows that the possessor of the modal noun *sorir* can trigger both possessor–noun agreement (the 3PL *-rir* suffix on *sorir*) and subject–predicate agreement (the 3PL *te* clitic that precedes *sorir*). Perhaps unexpectedly, the (pronominal) complement DP *kemam* “us” may also trigger subject agreement morphology, but only if it is null, as in (80c), cf. (80d) in which *kemam* remains overt. And the ungrammaticality of (80e–f) seems to suggest that the complement DP *kemam* cannot move to the right of the possessor *unless* it triggers subject agreement morphology. This is confirmed whenever the complement DP is non-pronominal, as in (81).

- (81) a. **Te**        so-rir        a Willy *a re-buik*.  
 3PL.+HUM= desire-3PLP D Willy D PL-boy  
 “The boys like Willy.” [Georgopoulos 1991a: 224, ex. 16b]
- b. **Ng**        so-rir         $t_i$  a re-buik [*a Willy* ]<sub>i</sub>.  
 3SG= desire-3PLP D PL-boy [D Willy ]  
 “The boys like Willy.” [Georgopoulos 1991a: 222, ex. 12b]
- c. \***Te**        so-rir         $t_i$  a re-buik [*a Willy* ]<sub>i</sub>.  
 3PL.+HUM= desire-3PLP D PL-boy [D Willy ]  
 (“The boys like Willy.”)

Sentence (81a), like (80b), suggests that the possessor DP can also serve as the subject, while sentence (81b), like (80c), suggests that the DP complement to the modal nominal can also raise to become the subject, but it has to move to the right of the possessor. Georgopoulos argues that this is movement to subject position. The

complement DP in (81b) is non-pronominal, so the movement to subject position is visible. Whenever there is visible movement of the DP complement to the modal nominal to the right of its possessor, subject agreement must match the features of the moved DP, as shown in (81b–c).<sup>14</sup>

If Georgopoulos is right, and the movement of [*a Willy*] is movement to subject position, then we should see a change in subject agreement morphology. Since the DP [*a Willy*] is 3SG, it is impossible for us to know whether it occupies the subject position or if the subject position is filled with a null expletive pronoun (or nothing at all, if we reject the Obligatory EPP Hypothesis), as in (80a). The situation is easily remedied by switching the base positions of the two DPs. Evidently, if the DP complement of the modal nominal is moved to the right of the possessor, it *must* also trigger subject agreement, as the contrast below in (82) indicates.

- (82) a. **Te** so-al  $t_i$  a Willy [a re-buik ]<sub>i</sub>.  
 3PL.+HUM= desire-3SGP D Willy [D PL-boy ]  
 “Willy likes the boys.” [Georgopoulos 1991a: 225, ex. 18a]
- b. \***Ng** so-al  $t_i$  a Willy [a re-buik ]<sub>i</sub>.  
 3SG= desire-3SGP D Willy [D PL-boy ]  
 (“Willy likes the boys.”) [Georgopoulos 1991a: 230, ex. 22b]

The picture that the possessor ascension data paints fits nicely together with the zero-place weather predicates and existentials. In all of these constructions, the main clause evidently needs to have a subject, and this subject may appear in a particular syntactic configuration within the clause, which I claim is Spec TP. The fact that the possessed noun predicates like *soal* and *chetil* allow either their DP com-

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<sup>14</sup>I am grateful to an anonymous reviewer for pointing out that the argumentation in this book predicts that sentences like those in (iii) should all yield ambiguous interpretations. Although I have unfortunately not yet collected the required data to determine whether this prediction is borne out, future research should be able to answer this question easily through elicitation.

- (iii) a. ?**Ng** so-al a buik *a Willy*.  
 3SG= desire-3SGP D boy D Willy
- b. ?**Ng** so-al  $t_i$  a buik [*a Willy* ]<sub>i</sub>.  
 3SG= desire-3SGP D boy [D Willy ]
- c. ?**Ng** so-al a Willy *a buik*.  
 3SG= desire-3SGP D Willy D boy
- d. ?**Ng** so-al  $t_i$  a Willy [*a buik* ]<sub>i</sub>.  
 3SG= desire-3SGP D Willy [D boy ]  
 (All four sentences) “The boy likes Willy.” / “Willy likes the boy.”

plement or their DP possessor to serve as the subject of the clause raises questions about locality (Shortest Move, or its equivalent), since the possessor DP is higher in the structure and has interpretable D and  $\varphi$ -features—I examine the locality question in more detail in Sect. 2.3. What is important at this point, however, is that we have now seen evidence that there appears to be a structural position at the rightward edge of the clause into which a DP either must move or may move in order to trigger subject agreement morphology. This data is incompatible with the No EPP Hypothesis in (68). In the next section, raising-to-subject constructions provide additional, stronger evidence for subject movement.

### 2.2.3 Raising-to-Subject Constructions

Recall that the data we saw involving weather predicates and existentials indicated that at least subject agreement on the verb was necessary, but it did not provide empirical evidence for movement of subjects to Spec TP. Then, possessor ascension constructions suggested that in order for subject agreement morphology to index the  $\varphi$ -features of a particular DP, that DP must appear in a position at the rightward edge of the clause, which I tentatively hypothesized was Spec TP. Below, we will now see evidence that suggests that movement to a subject position must take place, for no reason other than to satisfy the EPP.

#### 2.2.3.1 The Syntax and Morphosyntax of Subject-Raising Predicates

This evidence in favor of the Obligatory EPP Hypothesis in (66) comes from the interaction of subject-raising predicates with *wh*-agreement. Palauan has a small class of subject-raising predicates that contains at least the verb *oumesingd* “tend” as well as the aspectuals *omuchel* “begin, start,” *melemolem* “continue,” and *mo merek* “become finished.” All of these verbs may select clausal complements, as shown below in (83).

- (83) a. Te                    **ulemuchel** el mo melai        er se el bukl el beluu  
           3PL.+HUM= start.PAST L go take.IMPf ACC that L hill L country  
           *pro.*  
           they  
           “They started to invade the hill country.”        [*Chedaol Biblia*, Numbers 14:40]
- b. Ke mo                    **melemolem** el oltirakl        er tia el llach *pro.*  
           2SG= AUX.FUT continue L follow.IMPf ACC this L law you  
           “‘You will continue to observe the Law.’”        [*Chedaol Biblia*, Exodus 13:10]

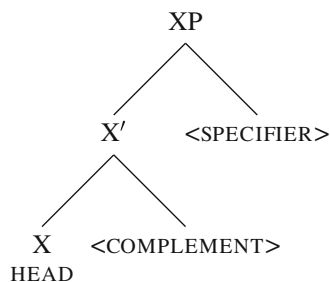
- c. Ng di **mlo** **merek** el mengedecheduch a Wilbur e  
 3SG= just PAST.become finished L speak D Wilbur and.then  
 a ngelek-el a sib a *tmoech*.  
 D child-3SGP D sheep TOP INTR.emerge  
 “Wilbur finished talking and the lambs came out.” [CB 79]
- d. Te di **oumesingd** el menga a rodech me a chemadech  
 3PL.+HUM= just tend L eat.IMPF D fruits and D raw  
 el kall *pro*.  
 L food they  
 “They tend to eat fruits and raw food.” [CM 7]

In each of these sentences, the raising predicates are followed by clauses that begin with the linker *el*. That the matrix predicates in (83) are raising predicates is already suggested by the subject agreement clitics in the matrix clause, which match the features of the DPs that are agents of the predicates in the embedded clauses. One key characteristic of raising predicates is that they do not assign  $\theta$ -roles to their subjects, and thus do not select their subjects directly. This can be seen when their complement clauses contain zero-place weather predicates, as in (84) and (85); none of these sentences contain thematic arguments of any kind.

- (84) Me itia er a l-omechel-a [el mo mesesilkolk ], e...  
 so this.(time) P D 3S.IRR-begin-ICP [L become twilight ] then...  
 “As it began to get dark...” [Chedaol Biblia, 2 Kings 7:5]
- (85) a. Ng chull.  
 3SG= rain  
 “It’s raining/rainy.”
- b. Ng mla omuchel el chull.  
 3SG= AUX start L rain  
 “It has started to rain/be rainy.”
- c. Ng oumesingd el chull er a ongeai el buil.  
 3SG= tend L rain P D eighth L month  
 “It tends to rain/be rainy in August.”
- d. Ng oumesingd el omuchel el chull er a ongeai el buil.  
 3SG= tend L start L rain P D eighth L month  
 “It tends to start to rain/be rainy in August.”

Above, I have assumed without argument that the head-initial, VOS nature of Palauan falls out from a phrase structure in which specifier positions of XPs are projected to the right rather than the left, as shown in Fig. 2.4 and argued for other

**Fig. 2.4** Phrase structure schema for all Palauan lexical categories



related Austronesian languages (Guilfoyle et al. 1992), such as Malagasy and Tagalog; see also Chung (1998), Sabbagh (2009), and many others.<sup>15</sup> If this structure is correct, and if the subject position in a clause is the specifier of TP, then movement from the subject position of an embedded TP to the subject position of a matrix TP will often be string-vacuous. As a result, word order alone is less useful as a diagnostic for subject raising in Palauan than it is for SVO languages, like English.

Still, it can be observed that in raising constructions, subjects of the raising predicates originate in the embedded clause. Put differently, the data suggests that the Internal Subject Hypothesis (McCloskey 1996, 1997) holds for Palauan. The evidence comes from the morphology of certain Palauan stative adjectives that denote physical properties, such as shape or size. While the citation forms of these predicates do not have prefixes, they are obligatorily prefixed with *me-* whenever their subjects are plural (Josephs 1975: 172–174; Josephs 1997: 266–267).

- (86) a. Tia el oluches a chetngaid.  
 this L pencil TOP thin  
 “This pencil is thin.” [Josephs 1975: 172, ex. 6a; Josephs 1997: 266, ex. 6a]
- b. Aika el oluches a **me**-chetngaid.  
 these L pencils TOP PL-thin  
 “These pencils are thin.” [Josephs 1975: 172, ex. 6b; Josephs 1997: 266, ex. 6b]
- c. \*Tia el oluches a **me**-chetngaid.  
 this L pencil TOP PL-thin  
 (“This pencil is thin.”)
- d. \*Aika el oluches a chetngaid.  
 these L pencils TOP thin  
 (“These pencils are thin.”)

<sup>15</sup>An important possible exception is Top(ic)P, which I have explicitly assumed to project a leftward specifier. I can only speculate that the reason for this might have something to do with information structure.

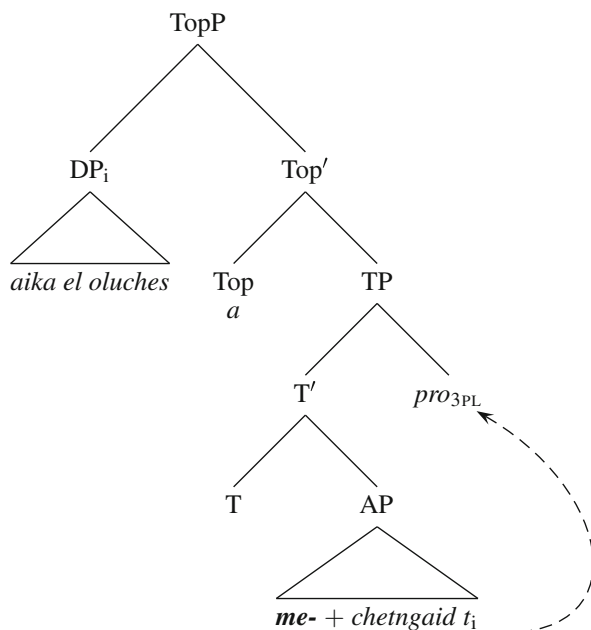


Fig. 2.5 Configuration for predicate–argument number agreement

The *me-* prefix on shape/size adjectives can be analyzed as predicate–argument agreement if the DP arguments of these adjectival predicates are base-generated predicate-internally, e.g., in the AP in the structure in Fig. 2.5, representing (86b).<sup>16</sup>

In a structure like that in Fig. 2.5, predicate–argument agreement is established within the predicate XP. In the syntactic framework I assume in Chap. 1, Sect. 1.1.2, feature sharing between the predicate *chetngaid* (i.e., the A head<sup>17</sup>) and its argument can be established via Agree, assuming that the relevant structural relation in Palauan between the probe (i.e., the head) and the goal (i.e., the DP argument) can be m-command<sup>18</sup> rather than c-command. The possessor agreement patterns

<sup>16</sup>In Chap. 5, I suggest that intransitive statives formed from the prefix *me-* are adjectives, but I admittedly have no evidence for this claim. It has recently been claimed that all languages have adjectives (i.a., Baker 2003; Dixon 2004), but I don't know of concrete diagnostics for Palauan that can reliably distinguish adjectives from stative verbs. For the present line of argumentation, this distinction makes no difference, but it is nevertheless important for our understanding of other areas of the language.

<sup>17</sup>Or perhaps the *a* head on a theory in which lexical words are derived syntactically whenever a category-defining functional head merges with a  $\sqrt{\text{ROOT}}$ ; category-neutral root theory is examined in more detail in Chaps. 4 and 5.

<sup>18</sup>Note here that I am referring not to subject agreement with finite T, but rather predicate–argument agreement within the lower predicate XP (presumably before T is merged), which appears to behave similarly to predicate–argument agreement in, e.g., Romance languages. Another possibility is that local predicate–argument agreement results from a specifier–head agreement configuration. I know of no empirical evidence that decisively shows that an m-command analysis is superior to a specifier–head agreement analysis, or vice-versa.



in the modal NP predicates examined in Sect. 2.2.2 strongly suggest that the m-command domain is the relevant domain for predicate–argument agreement in Palauan because the modal nominal predicates agree with the possessor DPs in their specifiers rather than with their complement DPs (recall Fig. 2.3).

If this theory of agreement is on track, then the subjects of shape/size predicates must be base-generated within the predicate XP to establish the conditions for a local application of the Agree operation (either via c-command or m-command, pending further analysis of the argument structure of such adjectives). If this predicate XP is within an embedded clause that is the complement of a raising predicate like those in (83), then we can construct an argument for raising if the subject of the embedded predicate is treated as the subject of the matrix predicate. The subject agreement morphology in (87a) suggests that the DP *a rengalek* ‘‘children’’ triggers the plural agreement prefix *me-* on the embedded predicate *klou* ‘‘big’’ as well as the plural subject agreement clitic *te*, which appears to the left of the matrix predicate *oumesingd* ‘‘tend.’’ The ungrammaticality of (87b) is consistent with the data in (84) and (85) in showing that the DP *a rengalek* ‘‘children’’ cannot be base-generated in the matrix clause, which—by hypothesis—would allow the embedded predicate *klou* to surface without the plural agreement marker *me-*.<sup>19</sup>

- (87) a. Te                   oumesingd el mo       **me-klou** a re-ngalek.  
           3PL.+HUM= tend           L become PL-big   D PL-child  
           ‘‘Children tend to grow up.’’ (lit. ‘‘Children tend to become big.’’)
- b. \*Te                   oumesingd el mo       **klou** a re-ngalek.  
           3PL.+HUM= tend           L become big   D PL-child  
           (‘‘Children tend to grow up.’’)

Now, even though the data in (87) shows that the matrix predicate *oumesingd* agrees with the subject of the embedded clause, there is no evidence that the embedded subject actually moves to a subject position in the matrix clause. In (87a), both the embedded and matrix subject positions would be rightward-branching specifiers, and such movement would be string-vacuous. Still, there is reason to believe that movement of an embedded DP to matrix Spec TP must take place.

### 2.2.3.2 Evidence for the EPP: Subject-Raising Predicates and *wh*-agreement

The following facts are subtle but provide an excellent example of how a firm understanding of morphology can reveal insights about syntactic structure. The evidence for the EPP below involves an interaction between subject-raising predicates and the realis/irrealis subject agreement alternation known as *wh*-agreement, described

<sup>19</sup>While a control analysis would likely also allow plural *me-* to appear on shape/size adjectives, it looks as though a control analysis is unlikely to be correct, given that verbs like *oumesingd* and *omuchel* may co-occur with zero-place weather predicates like *chull* ‘‘rain’’ and thus most likely do not assign a  $\theta$ -role to their subjects. Further research is necessary to determine whether *oumesingd*, *omuchel*, etc. are ambiguously raising/control predicates, however.

in Chap. 1, Sect. 1.2.2.4. In languages with an EPP requirement, a DP from the non-finite embedded clause complement to a subject-raising predicate must raise out of the embedded clause to occupy the matrix Spec TP, thereby satisfying the EPP, stipulated in Minimalism via an [EPP] feature on the matrix T.

Recall that in A' constructions, Palauan mood morphology alternates between realis and irrealis depending on the structural position of the gap/resumptive pronoun that is bound by the displaced element. If the displaced element binds a gap/resumptive pronoun in Spec TP (informally, if it binds a subject), then the subject agreement morphology on the predicate is realis. If, on the other hand, the displaced element binds a gap/resumptive pronoun in any other position besides the predicate's specifier (such as in a complement, an adjunct, etc.), then the subject agreement morphology is irrealis. This set of facts allows us to test predictions of our three hypotheses about the EPP: the Obligatory EPP Hypothesis in (66), the Optional EPP Hypothesis in (67), and the No EPP Hypothesis in (68).

The predictions are the following. If a DP has raised from an embedded clause to occupy the matrix Spec TP with a subject-raising predicate, and this DP participates in an A' dependency construction (e.g., it is relativized, topicalized, clefted, etc.) then we should expect to see realis subject agreement morphology on the matrix predicate. However, if there is no raising of the DP from the embedded clause to the matrix Spec TP, and the DP still participates in an A' dependency construction, then we would expect irrealis subject agreement morphology on the matrix predicate. In other words, if the only possibility is for the matrix predicate to bear realis subject agreement morphology (to the exclusion of irrealis), then the data is consistent only with the Obligatory EPP Hypothesis in (66). If both realis and irrealis are permitted, then the data is consistent only with the Optional EPP Hypothesis in (67). Finally, if only irrealis is possible (to the exclusion of realis), then the data is consistent only with the No EPP Hypothesis in (68). The relevant data is presented below in (89).

Example (88) shows that *lolemolem* is the 3rd person irrealis form of the subject-raising aspectual verb *melemolem* "continue;" as the verb *melemolem* is negated under *diak*, it must appear in the irrealis form. The sentences in (89) are of the type needed to test the predictions above: A' constructions that contain the same subject-raising aspectual verb *melemolem* "continue."

- (88) Ngike [el oltirakl er a Kristus er a klengar er ngii ] a **diak**  
 that [L follow ACC D Christ P D existence P him ] TOP NEG  
**l-olemolem** el ngar er a klengit.  
 3S.IRR-continue L be P D sin

"Whoever lives in union with Christ does not continue to sin."

[*Chedaol Biblia*, 1 John 3:6]

- (89) a. Ngike<sub>i</sub> [el **melemolem** [el ngar er a klengit  $t_i$  ] \_\_\_\_<sub>i</sub> ] a dirkak  
 that [L continue.R [L be P D sin ] <GAP> ] TOP never  
 l-es-ang me a ka l-odenge-lii.  
 3S.IRR-see.PF-3SGO and TOP nor 3S.IRR-know.PF-3SGO  
 “Whoever continues to sin has never seen him or known him.”  
 [*Chedaol Biblia*, 1 John 3:6]
- b. \*Ngike<sub>i</sub> [el **l-olemolem** [el ngar a klengit \_\_\_\_<sub>i</sub> ]] a dirkak  
 that [L 3S.IRR-continue [L be D sin(ner) <GAP> ]] TOP never  
 l-es-ang me a ka l-odengeli.  
 3S.IRR-see.PF-3SGO and TOP nor 3S.IRR-know.PF-3SGO  
 (“Whoever continues to sin has never seen him or known him.”)

As (89a) shows, *melemolem* appears in the realis form, suggesting that the embedded subject (which is an A' gap) has raised to fill the matrix Spec TP. This is incompatible with the No EPP Hypothesis in (68). Furthermore, (89b) shows that the matrix predicate cannot appear in the irrealis form *lolemolem*, suggesting that the embedded subject *must* have raised to fill the matrix Spec TP. If it had remained in the embedded clause, the matrix predicate would have no choice but to appear in the irrealis mood. Such a configuration is ungrammatical, which is incompatible with the Optional EPP Hypothesis in (67). As such, (89) provides independent empirical evidence in favor of the Obligatory EPP Hypothesis in (66), suggesting that Palauan clauses must indeed have subjects and obey the EPP, just as clauses in many other languages must.

For the remainder of this book, I assume that all Palauan clauses obey the EPP, and that Spec TP must filled in each clause. Consequently, I must assume that the weather-predicate sentences and existentials that display default 3SG subject agreement do so as a reflex of agreement with expletive pronouns that occupy Spec TP, but that these pronouns are not pronounced due to *pro*-drop. Assuming that Palauan clauses must obey the EPP now also gives us an explanation for the fact that subject agreement in sentences containing the transitive modal nominals *soal* “like” and *chetil* “dislike” must index the  $\varphi$ -features of the rightmost DP: that DP moves to occupy Spec TP, which is rightward-branching.

The rest of this section focuses on additional aspects of word order in subject-raising constructions that also receive a natural explanation once we assume movement of all subjects to Spec TP, including the extraposition of embedded clauses and the placement of aspectual PPs.

### 2.2.3.3 Adjunction in Subject-Raising Constructions

Consider the sentence below in (90), focusing on the unusual position of the DP *a rengalek* “children,” which the raising predicate agrees with.

- (90) Te                    oumesingd a re-ngalek el mo        me-klou.  
 3PL.+HUM= tend            D PL-child    L become PL-big  
 “Children tend to grow up.”

In (90), as in (87a), the matrix predicate *oumesingd* agrees with the sole DP in the sentence, effectively treating it as the subject. But the embedded predicate *meklou* also bears plural shape/size agreement, suggesting that an Agree relation has enabled the sharing of  $\varphi$ -features between the DP and the embedded predicate as well. Above, we said that the DP must originate in the embedded VP so that this agreement relation can be established locally. What makes (90) unusual is that regardless of whether the DP is base-generated as a complement or a specifier in the embedded VP, we expect the DP to appear sentence finally: all argument positions project to the right, as in Fig. 2.4. But unexpectedly, the DP surfaces between the matrix predicate and its clausal complement.

There are at least two different ways to make sense of the surface position of the DP in (90) between the matrix predicate and the embedded clause: either (i) the DP moves to a position to the left of the embedded clause, or (ii) the DP moves to a position to the right of the embedded clause (string-vacuously), and then the clausal remnant moves to the right of the DP. The second option is the more complex of the two, but the first of its two required movement operations—movement of the DP outside of the embedded clause to matrix Spec TP—has now been motivated.

Before we go further, it’s important to note that clauses can extrapose in Palauan.<sup>20</sup> Consider the following examples in (91), in which clausal complements of *sebechel* “one’s ability” and *soal* “one’s desire” extrapose to the right of their possessors in (91a–b) and the clausal complement of *dmu* “say” extraposes to the right of its subject in (91c).

- (91) a. Tia el bli-l            a Wilbur a    mla er ngii a tungel-el me    ng  
 this L pen-3SGP D Wilbur TOP was P there D gate-3SGP and.so 3SG=  
       mle        sebech-el     $t_i$  a Wilbur [el mo **tuobed**        ]<sub>i</sub>.  
       AUX.PAST ability-3SGP    D Wilbur [L go INTR.emerge ]  
 “Wilbur’s pen had a gate, so Wilbur could go outside.”            [CB 13]

<sup>20</sup>It would be interesting to determine whether such extraposition creates islands, as the construction is not discussed in Georgopoulos’s (1991b) book. Unfortunately, I have not investigated clause extraposition extensively: there is more work to be done on the conditions that trigger it, when it is obligatory or optional, and so forth.

- b. A I-so-al  $t_i$  a reng-um [el me kmeed er a  
 D 3S.IRR-desire-3SGP D heart-2SGP [L come INTR.close P D  
**reng-uk** ], e ng di ua chad el so-al el merael  
 heart-1SGP ], then 3SG= just like person L desire-3SGP L travel  
 el mo er a chiloil el ngar er a chelemoll.  
 L go P D rocks L be P D reef

“When your heart wants to come close to my heart, it’s like a person who wants to travel to the rocks in the reef.” [KC 99]

- c. Chelechang el le-du  $t_i$  a re-chad er a Siria [el kmo ‘A  
 now L 3S.IRR-say D PL-person P D Syria [L C ‘D  
**Rubak a rubak er a bukl e diak le-rubak er a**  
 God TOP lord P D hills and NEG 3S.IRR-lord P D  
**oberberek,’** ], e ak mo loi-a tia el klou el  
 plains’ ] then 1SG= AUX.FUT put.PF-3SG this L large L  
 ildois er a chero-el a chim-am.  
 army P D palm-3SGP D hand-2SGP

“Now that the Syrians say that God is the lord of the hills and not the lord of the plains, I will give you victory over their huge army.”

[*Chedaol Biblia*, 1 Kings 20:28]

The data in (91) indicates that the process of embedded clause extraposition must likely be posited on independent grounds, regardless of EPP considerations. One might devise a transformation along the lines of something like (92) to account for the positions of the embedded clauses in (91), which could apply either in the narrow syntax or post-syntactically, as it seems to have no effect on core semantic interpretation.<sup>21</sup>

- (92) (OPTIONAL) EMBEDDED CLAUSE EXTRAPOSITION: Move an embedded clause to right-adjoin to the next-highest TP.

Phase theory might restrict recursive application of (92), allowing embedded clauses to adjoin only to the next-highest TP *within the same phase*. Assuming that C is a phase head (Chomsky 2001), the TP or TopP complement of C (including any extraposed clauses right-adjoined to the TP) will be sent to the interfaces and thereby will be unavailable for subsequent applications of (92).

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<sup>21</sup>Jim McCloskey (p.c.) has suggested to me that the clause might instead move to right-adjoin to VP. At the time we had this discussion, the facts surrounding the interaction between subject-raising and *wh*-agreement were not yet known. Now, as it has been shown that subjects must move to Spec TP, it is clear that if clause extraposition is adjunction of a clause to a higher node in the structure, then adjunction to VP is too low.

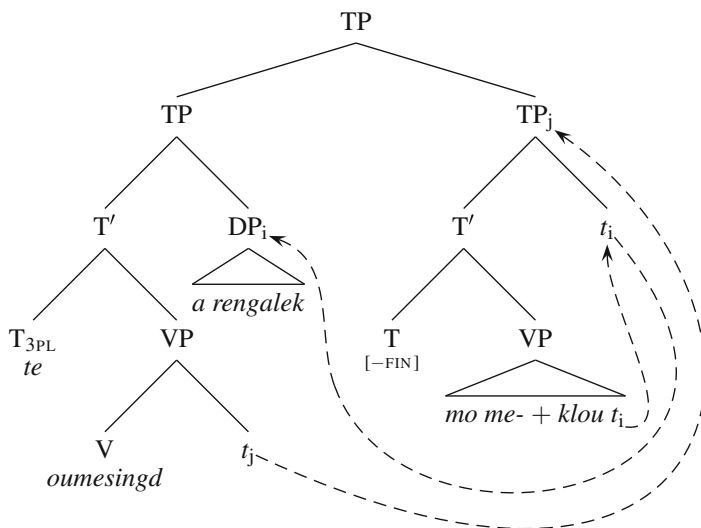


Fig. 2.6 Analysis of the word order in (90)

If one accepts (92) as part of the grammar of Palauan, then we might make some sense of the unusual (non-final) position of the subject in (90). If the subject of the embedded clause raises to the specifier of the matrix TP, then we can analyze the word order as being derived from three movements, as shown in (90'), and represented schematically in Fig. 2.6.<sup>22</sup>

(90') Te            oumesingd t<sub>j</sub> [a re-ngalek ]<sub>i</sub> [el mo        [me-klou t<sub>i</sub> ] t<sub>i</sub> ]<sub>j</sub>.  
 3PL.+HUM= tend            [D PL-child ] [L become [PL-big        ] ]  
 “Children tend to grow up.”

First, the subject DP moves string-vacuously from its predicate-internal position to the specifier of the embedded TP. Next, the matrix TP is formed, and the DP then raises from the specifier of the embedded TP to the specifier of the matrix TP. Finally, the embedded clause extraposes, right-adjoining to the matrix TP. If this analysis is correct, then we would expect similar results with recursively embedded predicates. Since embedded clause extraposition seems to be optional, clauses

<sup>22</sup>The linker *el* is omitted from this tree and nearly all subsequent trees in this book, as I assume that it does not occupy a syntactic position. See Chap. 1, Sect. 1.2.2.2 for details.

of various sizes can extrapose to the right of the subject, creating the illusion of leftward movement of the subject DP even though subject movement is rightward.<sup>23</sup>

- (93) a. Te                   oumesingd el omuchel el mengitakl  $t_i$  [**a re-chad** ]<sub>i</sub>.  
 3PL.+HUM= tend           L start.IMPF L sing                   [D PL-person ]  
 “People tend to start singing.”
- b. Te                   oumesingd el omuchel  $t_j$  [**a re-chad** ]<sub>i</sub> [el  
 3PL.+HUM= tend           L start.IMPF [D PL-person ] [L  
   mengitakl  $t_i$  ]<sub>j</sub>.  
   sing                   ]  
 “People tend to start singing.”
- c. Te                   oumesingd  $t_k$  [**a re-chad** ]<sub>i</sub> [el omuchel  $t_j$   $t_i$  [el  
 3PL.+HUM= tend                   [D PL-person ] [L start.IMPF [L  
   mengitakl  $t_i$  ]<sub>j</sub> ]<sub>k</sub>.  
   sing                   ] ]  
 “People tend to start singing.”
- d. \*Te                   oumesingd [**a re-chad** ] [el mengitakl ] [el  
 3PL.+HUM= tend           [D PL-person ] [L sing           ] [L  
   omuchel ].  
   start.IMPF ]  
 (“People tend to start singing.”)

Sentence (93c) is of particular interest, as it serves to show that the embedded clause extraposition transformation in (92), in which extraposed TPs right-adjoin to the next-highest TP, does not overgenerate, e.g., a word order like that in (93d). This is because an extraposed clause will remain within the next highest clause, and only the larger containing clause can subsequently extrapose.

In a sentence with multiply embedded raising predicates, an application of embedded clause extraposition to a clause deeply embedded within another embedded clause is string-vacuous once the subject has raised. In raising constructions, the subject DP is in the specifier of the TP containing the highest raising predicate and will therefore never be inside an embedded clause, whether or not it extraposes. This, I propose, is the source of the word order variation in the sentences in (93).

There is another piece of evidence for movement of an embedded subject to a matrix subject position that involves aspectual modification. In English, there is an

<sup>23</sup>Admittedly, clause extraposition might sometimes be obligatory, but I have not yet made sense of the relevant conditions, perhaps driven by information structure requirements.

aspectual distinction between the modifiers *in an hour* and *for an hour* (i.a., Tenny 1987, 1994; Jackendoff 1996; Ramchand 1997; Arad 1998a, b, Krifka 1998; Torrego 1998; van Hout and Roeper 1998; Kearns 2000; Rothstein 2004). What is relevant for our purposes is that *in an hour* identifies the telic endpoint of a bounded predicate (i.e., an achievement or an accomplishment) but is impossible with an unbounded predicate (i.e., a process/activity or a state). This is shown in (94).<sup>24</sup>

- (94) a. They found their presents in an hour. ACHIEVEMENT  
 b. They drew those pictures in an hour. ACCOMPLISHMENT  
 c. \*They wandered around in an hour. PROCESS/ACTIVITY  
 d. \*They were happy in an hour. STATE

The adverbial [*er a chelsel a* + <LENGTH OF TIME>] is the Palauan correlate of English [*in a* + <LENGTH OF TIME>], as shown in (95).

- (95) Ke Imuut el meke-decher-ur pro er a di  
 2SG= INTR.do.again L CAU.PF-upright-3SGO P D just  
 chels-el a ede el klebesei?  
 space.inside-3PLP D three L days  
 “Are you going to build it again in just three days?” [*Chedaol Biblia*, John 2:20]

Just like English *in an hour*, Palauan *er a chelsel a ta el sikang* “in an hour” is compatible only with bounded predicates, as shown in (96), cf. English (94).

- (96) a. Te miltik a beresengt er tir er a chels-el a  
 3PL.+HUM= PAST.find D presents P them P D space.inside-3SGP D  
 ta el sikang.  
 one L hour  
 “They found their presents in an hour.” ACHIEVEMENT  
 b. Te liluches aike el siasing er a chels-el a  
 3PL.+HUM= PAST.draw.PF those L pictures P D space.inside-3SGP D  
 ta el sikang.  
 one L hour  
 “They drew those pictures in an hour.” ACCOMPLISHMENT

<sup>24</sup>Sentence (94d) is grammatical on the irrelevant interpretation in which they began to be happy after an hour had passed. This is a repair strategy for some unbounded predicates, discussed by Kearns (2000: 205–206).



- c. \*Te ulemais er a chels-el a ta  
 3PL.+HUM= wander.around.PAST.IMPF P D space.inside-3SGP D one  
 el sikang.  
 L hour  
 (“They wandered around in an hour.”) PROCESS/ACTIVITY
  
- d. \*Te mle ungil a reng-rir er a chels-el a ta  
 3PL.+HUM= PAST good D hearts-3PLP P D space.inside-3SGP D one  
 el sikang.  
 L hour  
 (“They were happy in an hour.”) STATE

As *er a chelsel a*-PPs cannot combine with states or processes, which by definition are unbounded, they cannot modify the predicate *chull* “rain,” as shown in (97b). The ungrammaticality of (97b) suggests that there is no constituent in (97a) that an *er a chelsel a*-PP can modify which would result in a grammatical sentence. Yet when *chull* is embedded under the raising predicate *mo merek* “(become) finished,” addition of an *er a chelsel a*-PP is fully grammatical, as shown in (97c).

- (97) a. Ng mle chull.  
 3SG= AUX.PAST rain  
 “It rained/was raining.”
  
- b. \*Ng mle chull [PP er a chels-el a ta el sikang ].  
 3SG= AUX.PAST rain [ P D space.inside-3SGP D one L hour ]  
 (“It was raining in an hour.”)
  
- c. Ng m/o merek el chull [PP er a chels-el a ta  
 3SG= PAST.become finished L rain [ P D space.inside-3SGP D one  
 el sikang ].  
 L hour ]  
 “It finished raining in an hour.”

The addition of *mo merek* imposes an endpoint on the stative eventuality, essentially turning it into an achievement. As a consequence, the *er a chelsel a*-PP must adjoin to some position in the matrix clause, since it is semantically incompatible with the predicate in the embedded clause, as the grammaticality contrast in (97a–b) suggests.

The situation reveals something important about raising predicates. Consider the data below in (98).

- (98) a. Te                    *milengedub*                    **a re-secheli-k**.  
 3PL.+HUM= PAST.go.swimming D PL-friend-1SGP  
 “My friends went swimming.”
- b. \*Te                    *milengedub*                    **a re-secheli-k** [PP *er a*  
 3PL.+HUM= PAST.go.swimming D PL-friend-1SGP [ P D  
*chels-el*                    *a ta el sikang* ].  
 space.inside-3SGP D one L hour ]  
 (“My friends went swimming in an hour.”)
- c. \*Te                    *milengedub*                    [PP *er a chels-el*                    *a ta el*  
 3PL.+HUM= PAST.go.swimming [ P D space.inside-3SGP D one L  
*sikang* ] **a re-secheli-k**.  
 hour ] D PL-friend-1SGP  
 (“My friends went swimming in an hour.”)
- d. Te                    *m/o*                    *merek el mendedub*                    **a re-secheli-k**  
 3PL.+HUM= PAST.become finished L go.swimming D PL-friend-1SGP  
 [PP *er a chels-el*                    *a ta el sikang* ].  
 [ P D space.inside-3SGP D one L hour ]  
 “My friends finished swimming in an hour.”
- e. Te                    *m/o*                    *merek el mendedub*                    [PP *er a*  
 3PL.+HUM= PAST.become finished L go.swimming [ P D  
*chels-el*                    *a ta el sikang* ] **a re-secheli-k**.  
 space.inside-3SGP D one L hour ] D PL-friend-1SGP  
 “My friends finished swimming in an hour.”

Sentence (98a) contains the process predicate *mengedub* “go swimming.” Sentences (98b–c) show us that *mengedub* is incompatible with *er a chelsel a*-PPs, just as the process predicate *omais* “wander around” in (96c) was. Regardless of whether the subject DP precedes the *er a chelsel a*-PP as in (98b) or follows it as in (98c), the result is ungrammatical.

However, when the clause whose predicate is *mengedub* is embedded under the raising aspectual predicate *mo merek*, the result is not only grammatical—as it was in (97c)—but the subject can appear either to the left of the *er a chelsel a*-PP as in (98d) or to its right as in (98e). Although I cannot state with any certainty exactly where the *er a chelsel a*-PP adjoins, (98a–c) suggests that it is in the matrix clause (perhaps right-adjoined either to matrix VP or TP), since it is semantically incompatible with the process predicate in the embedded clause. If this is on the right track, then the appearance of the subject DP *a resechelik* “my friends” to the right of the *er a chelsel a*-PP in (98e)—together with the 3PL subject agreement clitic in the matrix clause—strongly suggests that the DP argument of the embedded predicate

*mengedub* “go swimming” has raised to become the subject of the matrix predicate *mo merek* “(become) finished.”<sup>25</sup>

To sum things up, we have now seen three sources of evidence that there is a class of predicates in Palauan—and possibly a very small class—that appears to behave like *seem* and other raising predicates in English in that they do not assign a  $\theta$ -role to their subjects but still require some DP to occupy the subject position. The crucial piece of data is (89) on p. 77, in which it is shown that *wh*-agreement in A' constructions with subject-raising predicates is invariably realis, indicating that the dependency must be with a null element in matrix Spec TP, and not an unmoved DP element in the embedded clause—in other words, the Obligatory EPP Hypothesis in (66) appears to hold. Then, the idea that embedded clause remnants can extrapose to the right of their subjects, as in (93b–c), illustrated that the word order variation receives a natural explanation if we assume that Palauan obeys the EPP. Finally, the fact that DPs that originate in an embedded clause may appear to the right of aspectual modifiers that are licensed only by the matrix predicate, as in (98e), suggests that the DPs have moved to matrix Spec TP to satisfy the EPP.

### 2.3 Analysis of Subjects

The Obligatory EPP Hypothesis in (66) is repeated below.

- (66) OBLIGATORY EPP HYPOTHESIS: All Palauan clauses must have a subject, thematic or expletive, which occupies Spec TP and conditions  $\varphi$ -feature agreement on T. [cf. Chomsky 1982: 9–10, 1986b: 116]

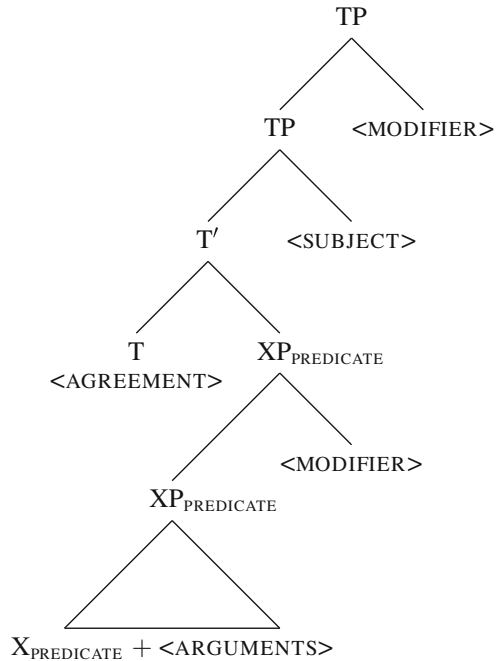
Given the data involving expletives, possessor ascension, and the interaction of subject raising with *wh*-agreement and adjunction constructions that were examined in Sect. 2.2, it would be extremely surprising if (66) did not hold. In particular, the contrast in (89) would be left unexplained. The data seems to suggest that not only must a particular DP be treated as the subject of each clause for the purposes of subject agreement, but it must also occupy a particular structural position, which I have analyzed as the specifier of TP. This analysis is in line with what has been assumed for many other languages, and it is compatible with all of the subject-related patterns in the data we have seen so far. In a clause with a predicate XP, I propose the clausal structure in Fig. 2.7.

How the specifier of TP will be filled will depend on what is inside the XP predicate. If XP is an NP that contains a zero-place predicate like *chull* “rain,” there will

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<sup>25</sup> Although I have no explanation for why the subject may appear either immediately to the left or the right of the *er a chesel a*-PP, the fact that the subject DP can appear to its right at all is additional evidence in favor of movement of the embedded subject to matrix Spec TP, since the *er a chesel a*-PP cannot adjoin to any XP in the embedded clause.

**Fig. 2.7** Basic surface clause structure of Palauan



be no DP arguments merged in the XP, and an expletive will be inserted in the specifier of TP. If XP is a VP or AP which selects a DP argument, then this DP will have to move to the specifier of TP to satisfy the subject requirement. Now, although the structure proposed in Fig. 2.7 and the requirement that clauses have a subject in (66) help us to make some sense of the word order and agreement patterns we observed in the data in Sect. 2.2, they raise several important questions about Nominative Case licensing.

Chomsky (2000, 2001) proposes that finite T is the head that is responsible for (i) ensuring that clauses have subjects (encoded formally by an [EPP] feature), (ii) determining agreement morphology (encoded formally by the Agree relation, valuing any unvalued  $\varphi$ -features on T), and (iii) licensing structural Nominative Case (again, via the Agree relation with a DP).

The quirk in Palauan is that in possessor ascension constructions, the possessor DP that appears in the specifier of TP triggers  $\varphi$ -feature agreement, but it presumably does not need Nominative Case since—by assumption—it gets Genitive Case when it is still in its DP-internal possessor position. The reason I make the assumption that possessor DPs receive Genitive Case is largely due to theory-internal considerations; if the only available structural Cases available for licensing of DPs are Nominative and Accusative, then any possessor DP in a sentence with at least two other DP arguments that already bear Nominative and Accusative needs some Case of its own to satisfy the Case Filter. There are overt morphological reflexes that suggest that this Case is licensed in a local configuration with the possessee

DP in which the possessor is embedded; see examples and discussion in Chap. 1, Sect. 1.2.2.2. These morphological reflexes appear regardless of whether the possessee noun is within a DP argument or within an NP predicate complement of T, such as the modal nominal predicates listed in Table 2.3. Furthermore, possessor agreement is present even in possessor ascension constructions, suggesting that possessors bear some local relation to their possessee even if they are pronounced in a higher structural position. I take this as evidence for movement.

Admittedly, the structure of the nominal complex and the nature of Case licensing of possessor DPs deserves further careful research that must be left for the future. Here, I simply take for granted that possessors receive inherent Genitive Case via a local relation with the head noun, which either itself exhibits  $\varphi$ -feature agreement with the possessor (a head-marking pattern) or licenses a case-marker *er* on the possessor (a dependent-marking pattern).<sup>26</sup> It is possible that the choice between the two morphological case-marking strategies is somehow predictable from the phonological, morphological, or semantic features of the relevant nouns (or some combination of these features), but I know of no research to date that has investigated this alternation or shed any light on it. Until a clearer picture emerges, it seems that the choice between the dependent-marking and head-marking patterns can simply be stipulated on a noun-by-noun basis: recall the observed variation among loanword nouns, examples of which are adapted below from (24b) and (25b) in Chap. 1.

(99) JAPANESE LOANWORD:

a sensei **er kemam**

D teacher P us.EXC

“our teacher”

DEPENDENT-MARKING

(100) ENGLISH LOANWORD:

a tabel-**id** *pro*

D table-1PL.INCP us.INC

“our table”

HEAD-MARKING

The question, then, is how the stranded possessee DP gets Case-licensed. The issue is represented schematically below in Fig. 2.8, for sentence (101).

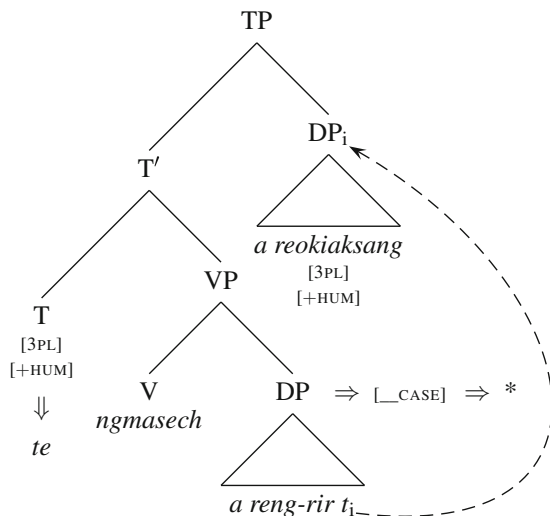
(101) **Te** ngmasech a reng-rir **a re-okiaksang.**

3PL.+HUM INTR.climb D hearts-3PL.+HUMP D PL-guests

“The guests are getting angry.” (lit. “The guests’ hearts are climbing.”)

<sup>26</sup>See Nichols (1986) for a further details of head-marking and dependent-marking agreement patterns.

**Fig. 2.8** How the possessee gets Case-licensed in possessor ascension



Essentially, the problem is that if finite T must license structural Nominative Case on the same DP that it agrees with, then the stranded DP in possessor ascension constructions will be left without case.<sup>27</sup> In the context of the present framework, this would lead to a Case Filter violation, and we would predict that (101) should be ungrammatical, contrary to fact.

The problem is quite an interesting one, given what is known about quirky case subjects in better-studied languages, such as Icelandic. One possible solution is that multiple instances of feature-sharing/valuing/checking can result from multiple instances of Agree. In Icelandic, the DP that finite T agrees with (i.e., the DP whose  $\varphi$ -feature values are used to value T's uninterpretable  $\varphi$ -features) is usually the same DP that raises to the specifier of TP, but this is not always the case. Counterexamples are easily—and famously—found in Icelandic dative experiencer constructions. Consider the data in (102) and (103) below, in which the dative experiencer

<sup>27</sup>Keenan and Ralalaoherivony (2000) describe a similar phenomenon in Malagasy and show quite convincingly that the stranded nominal is not a DP and incorporates with the verb. Section 4.1.2 in Chap. 4 shows that a similar analysis for Palauan is unlikely to be tenable, however.

See Munro (1999) for discussion of similar concerns in Chickasaw (cf. Massam 1985: Chap. 4 for an analysis in the Government and Binding framework of Chomsky 1981, 1982), as well as Bell (1983) for a Relational Grammar analysis of a similar phenomenon in Cebuano, an Austronesian language that is relatively closely related to Palauan.

For additional patterns of possessor ascension involving grammatical relations other than subject, see Keenan (1972), Keenan and Ralalaoherivony (2000) for Malagasy, Aissen (1979, 1987) for Tzotzil, Szabolcsi (1994) for Hungarian, van Geenhoven (2002) for West Greenlandic, and many others in Payne and Barshi (1999).

argument appears either in subject position (for evidence of subjecthood see, i.a., Thráinsson 1979: 462–476; Zaenen et al. 1985; Sigurðsson 1989: 198–209) as in (102a) and (103a) or in its base position, with an expletive pronoun in subject position as in (102b) and (103b).

## (102) ICELANDIC:

- a. Manninum **virðist/virðast** [hestarnir vera seinir ].  
 the.man.SG.DAT seems.SG/seem.PL [the.horses.PL.NOM be slow ]  
 “The man finds the horses slow.”

[cf. Holmberg and Hróarsdóttir 2003: 1000, ex. 11a & 11b]

- b. Það **virðist/\*virðast** einhverjum manni [hestarnir  
 EXP seems.SG/\*seem.PL some man.SG.DAT [the.horses.PL.NOM  
 vera seinir ].  
 be slow ]

“A man finds the horses slow.” [Holmberg and Hróarsdóttir 2003: 1000, ex. 12]

## (103) ICELANDIC:

- a. Einhverjum stúdentum **finnst/finnast** [tölvurnar  
 some students.PL.DAT find.SG/find.PL [the.computers.PL.NOM  
 ljótar ].  
 ugly ]

“Some students find the computers ugly.”

[Holmberg and Hróarsdóttir 2003: 1000, ex. 10]

- b. Það **finnst/finnast** mörgum stúdentum [tölvurnar  
 EXP find.SG/find.PL many students.PL.DAT [the.computers.PL.NOM  
 ljótar ].  
 ugly ]

“Many students find the computers ugly.”

[Holmberg and Hróarsdóttir 2003: 1000, ex. 13]

What is interesting is that when the dative experiencer appears in matrix subject position as in (102a), the raising verb *virðast* “seem (PL)” can optionally agree in number with the subject of the embedded small/infinitival clause. The embedded subject gets structural Nominative Case from the matrix finite T. However, when an expletive is inserted into subject position and the dative experiencer DP remains in its base position between the matrix finite T and the embedded subject, the experiencer DP does not block Nominative Case licensing on the embedded subject, but it blocks number agreement with the embedded Nominative DP. On a trace theory of movement, the pattern might be explained by saying that the full dative experiencer DP blocks  $\varphi$ -feature sharing between finite T and the embedded subject DP,

but its trace (created by A-movement; see Holmberg and Hróarsdóttir 2003: 998) does not.<sup>28</sup>

What the contrast between (102a) and (102b) shows us is that the Agree relation that is established to license Nominative Case can be distinct from whatever relation is established between finite T and a (possibly different) DP to satisfy the EPP and value finite T's uninterpretable  $\varphi$ -features (optionally, since default 3SG appears to be possible even with both DPs are plural, as in (103a)). Furthermore, it appears that whether or not the [EPP] feature on finite T is satisfied in Icelandic by Merge (of an expletive pronoun *það*) or by Move (of a DP from within the predicate XP) will have consequences for  $\varphi$ -feature sharing but not for Nominative Case licensing, suggesting that satisfaction of the [EPP] feature can precede  $\varphi$ -feature sharing. But the sentences in (103) show that it does not necessarily need to, as default 3SG agreement appears to be possible whether an expletive is inserted, as in (103b), or not, as in (103a).<sup>29</sup>

The Icelandic examples in (102) and (103) strongly suggest that there are three different autonomous operations initiated by finite T (cf. Sigurðsson 2012, for a much more detailed account of how Case and agreement might be split up into different relations). These are summarized in (104).<sup>30</sup>

(104) OPERATIONS INITIATED BY FINITE T:

- a. *Nominative Case licensing*: Finite T probes its c-command domain for a DP with an unvalued [ $\_\_$ CASE] feature. The highest such DP (in the sense of Rizzi 1990, 2001) is selected as T's goal. The goal DP is valued for structural Nominative Case, and its feature [ $\_\_$ CASE] is replaced by the feature [NOM]. Any DP already bearing a syntactic Case feature (such as [DAT], [GEN], or any number of inherent cases) cannot be selected as the goal; T must probe more deeply within its c-command domain for a goal.
- b. *Satisfaction of the [EPP] feature*: T bears a feature [EPP] that requires that a DP fill its specifier position. Either an expletive is inserted (under certain conditions), or T probes its c-command domain for any available DP to move to its specifier position. The highest DP (in the sense of Rizzi 1990, 2001) is selected as T's goal. The [EPP] feature is deleted from finite T.
- c.  *$\Phi$ -feature sharing*: Finite T bears unvalued (uninterpretable)  $\varphi$ -features [ $\_\_$  $\varphi$ ]. In order to value the uninterpretable features, T probes its c-command domain for a DP with valued (interpretable)  $\varphi$ -features. The highest DP in its c-command domain (in the sense of Rizzi 1990, 2001) assigns its values to T's  $\varphi$ -features.

<sup>28</sup>Although this is the standard view these days, it is not exactly clear to me how such a proposal is to be implemented formally in the Minimalist Program.

<sup>29</sup>This is a fact that I still do not really understand from the Icelandic literature.

<sup>30</sup>In Icelandic, another option apparently is that finite T bears default 3SG  $\varphi$ -features.



The only available syntactic operations in the framework of Chomsky (2000, 2001, 2004) are Merge, Move, and Agree. As a result, the three operations in (104) are usually thought to be reflexes of the operation Agree. Although it is often tacitly assumed that a head that can instantiate an Agree relation may only do so once, the Icelandic data suggests otherwise. Recently, there have been proposals that allow a single head to instantiate Agree more than once—so-called cases of multiple Agree (Hiraiwa 2001, 2005; Chomsky 2004, 2008). If we assume that the three operations in (104) are implemented by independent Agree relations, then it is possible to construct a theory to explain the variable agreement patterns in Palauan possessor ascension constructions while ensuring that every DP is properly Case-licensed.

Before I proceed, one point must be addressed. In Chap. 1, Sect. 1.2.2.2, I assumed that possessors were base-generated in the specifier of NP, as shown in Fig. 1.6. The idea behind that move was to put the possessor and the head noun in a close enough structural relation for possessor–noun agreement to apply in a local domain. But there is also empirical evidence that possessors are base-generated NP-internally, rather than directly in Spec DP, which I present below. On the analysis I develop, the possessor DP will have to be able to be extracted from the DP that contains it. If it turns out that Svenonius (2004) is right about D being a phase head in addition to C and transitive  $v$ , then the possessor will have to occupy an “escape hatch” position within the DP so as to be accessible to operations outside of the DP phase and prevent a violation of the Phase Impenetrability Condition (Chomsky 2000 et seq.).

Chung (1998: 45–47, 183) proposes that possessors in Chamorro (which often, but not always, trigger possessor–noun agreement, like in Palauan) are either base-generated in or move to the specifier of DP to satisfy a requirement similar to the requirement that the specifier of TP must be filled. On Chung’s view, whatever relation holds between T and the subject DP in its specifier has a correlate in DPs, where a similar relation holds between D and its specifier. Both relations, she argues, enable the sharing of  $\varphi$ -features between the head and the DP in its specifier, yielding subject–verb agreement on one hand and possessor–noun agreement on the other. In terms of the present framework, one might say that both T and D have [EPP] features that must be satisfied by having a DP in their specifier positions.<sup>31</sup> The agreement morphology might be realized on N via different mechanisms: lowering (in the sense of Embick and Noyer 2001), sharing of features within an extended projection (in the sense of Grimshaw 2005), or something else altogether.

One problem with assuming that D is responsible for possessor–noun agreement in Palauan and Chamorro is the fact that both languages allow predicate NPs without any DP structure on top of them, but which may nevertheless have possessors. One such example in Palauan is (9) (repeated below), whose predicate NP is *ngelekel a Bkau me a Elibeob* “Bkau and Elibeob’s children.” Recall from Chap. 1, Sect. 1.2.2.5

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<sup>31</sup>Chung’s original formulation of this requirement contains the caveat that the specifier of D must be filled “whenever possible [...] to acknowledge that it is not necessary for every noun phrase to have a possessor. All that is required is that the possessor, if there is one, must occupy the specifier of D in overt syntax” (Chung 1998: 183).

that in topicalization structures that involve nominal predicates like the one in (9), there is no DP layer above the nominal predicate. In terms of the phrase structure proposed in Fig. 2.7, the XP predicate is an NP, not a DP. Example (105) provides a similar example in Chamorro, where the predicate NP is *ma'estra-kku* “my teacher” and bears possessor agreement with a (null) 1SG pronominal possessor which is unpronounced according to the conventions that govern *pro*-drop in Chamorro.

(9) PALAUAN:

A Elilai me a Ltlatk a ngelek-**el** a Bkau me a Elibeob.  
 D Elilai and D Ltlatk TOP child-3SGP D Bkau and D Elibeob  
 “Elilai and Ltlatk are Bkau and Elibeob’s children.” [EI 16]

(105) CHAMORRO:

Pära ma'estra-**kku** gui' otru sakkan.  
 FUT teacher-1SGP she other year  
 “She’s going to be my teacher next year.” [Chung 1998: 54, ex. 70b]

In both (9) and (105), the head N of the predicate NP bears possessor agreement morphology despite there being no D to instantiate an Agree relation. It is based on this fact that I assume that possessor–noun agreement must be established locally between the head N and the possessor in Spec NP. This is not at odds with Chung’s view that D has an [EPP] feature. It simply means that possessor–noun agreement in Palauan and Chamorro is established independently of whatever mechanism might trigger movement of the possessor to Spec DP. We might imagine a structure like that in Fig. 2.9 for DPs that contain possessors, like the one in (106), which is presented in the context of the theory of Bare Phrase Structure like that of Chomsky (2001) et seq.<sup>32</sup>

(106) [<sub>DP</sub> a reng-rir a re-okiaksang ]  
 [ D heart-3PLP D PL-guests ]  
 “the guests’ hearts”

Let’s turn back to the Palauan possessor ascension construction. If possessors raise from Spec NP to Spec DP to yield a structure like that in Fig. 2.9, then the

<sup>32</sup>I assume agreement relations are established in the syntax, but that the morphology associated with feature-sharing is realized at PF (i.e., post-syntactically, cf. Legate 2008). Agreement morphology is usually distinct from the morphology associated with the functional heads that instantiate Agree relations (T, transitive *v*, or in this case D). One way to capture this formally is through post-syntactic adjunction of an Agr node to the relevant functional head (see, e.g., Marantz 1992, 2000; Embick and Noyer 2007: 12–13).

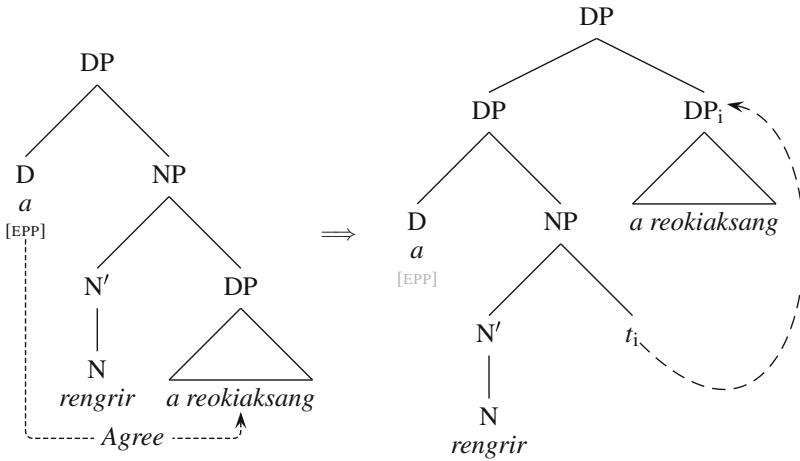


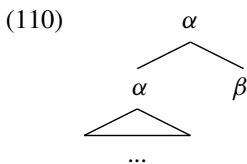
Fig. 2.9 Possessor agreement and movement

possessed DP and its possessor can be defined as being equidistant goals for the higher finite T probe. This is because the possessee DP *includes* (but does not *dominate* or *c-command*) the possessor DP, and both DPs are available to participate in Agree relations instantiated by finite T. This variety of analysis depends on a conflation of the notions of specifier and adjunct; in a theory of Bare Phrase Structure, such an account becomes possible. Consider the following definitions of *domination*, *c-command*, and *inclusion*.

(107) DOMINATION:  $\alpha$  dominates  $\beta$  iff every segment of  $\alpha$  dominates  $\beta$ .  
 [cf. May 1985; Chomsky 1986a: 7]

(108) C-COMMAND:  $\alpha$  c-commands  $\beta$  iff neither  $\alpha$  nor  $\beta$  dominates the other and the first branching node that dominates  $\alpha$  also dominates  $\beta$ .  
 [Reinhart 1976: 32, ex. 36; cf. Reinhart 1983: 41, ex. 36 as well as May 1985: 34, ex. 9]

(109) INCLUSION:  $\alpha$  includes  $\beta$  iff there is a segment of  $\alpha$  which dominates  $\beta$ .



[cf. Chomsky 1986a: 7, ex. 11]

For instance,  $\alpha$  has two segments in the adjunction structure in (110). Only the upper segment of  $\alpha$  dominates  $\beta$  (the lower segment of  $\alpha$  does not), so  $\alpha$  does not *dominate*  $\beta$ . But  $\alpha$  *includes*  $\beta$  because the topmost segment of  $\alpha$  dominates  $\beta$ , even though not all segments of  $\alpha$  dominate  $\beta$ .

Chomsky's formulation of the Agree relation obtaining between a probe and some goal in its c-command domain incorporates Rizzi's (1990, 2001) notion of Relativized Minimality. On that view, a DP  $\alpha$  can only intervene between the probe and another DP  $\beta$  if  $\alpha$  either dominates or c-commands  $\beta$ . But if  $\alpha$  only *includes*  $\beta$ , then no dominance or c-command relations hold between  $\alpha$  and  $\beta$ , and neither of them intervenes between the probe and the other. As such, it is predicted that they will be equidistant for the purposes of an Agree relation established by a functional head that is merged later in the derivation.

If it's true that the Agree relation that licenses Nominative Case can be distinct from the Agree relations that enable feature sharing and satisfaction of the [EPP] feature on the probe, as the Icelandic facts suggest is the case, then the variability in subject agreement morphology seen in Palauan possessor ascension constructions can be explained. As the possessor DP already has inherent Genitive Case (by assumption), it no longer needs to be—and, presumably, cannot be—licensed with Nominative Case as well. This leaves only the possessee DP with an unvalued [CASE] feature, which can be checked by finite T in one of two different ways.

First, it might be the case that finite T establishes a single Agree relation with the *entire possessee DP*, which (i) enables  $\varphi$ -feature sharing between T and the DP, (ii) licenses the DP with Nominative Case, and (iii) moves the DP to the specifier of TP to satisfy the [EPP] feature on T. This is the derivation illustrated in Fig. 2.10.

Second, finite T might establish an Agree relation with the *just the possessor DP*, which, recall, is equidistant from the possessee DP for the purposes of Agree since it is in the possessee DP's specifier position. This Agree relation will enable  $\varphi$ -feature sharing between T and the possessor DP and move the possessor DP to the specifier of TP, but it will not license Nominative Case because the goal DP already bears Genitive Case. After movement of the possessor to the specifier of TP (i.e., possessor ascension to subject), T can still license Nominative Case on the possessee through a second Agree relation, which holds between finite T and the stranded possessee. This is the derivation illustrated in Fig. 2.11.

As long as the possessor DP moves to a position in which it is considered to be equidistant from the possessee DP for the purposes of Agree, such as in Fig. 2.9, then the variation in subject agreement can be explained by either of the two DPs being selected when finite T probes for a goal to satisfy its [EPP] feature. If this analysis is on the right track, then [EPP] and  $\varphi$ -feature agreement are dissociated from licensing of Nominative Case in Palauan in a manner that appears to be somewhat similar to Icelandic. In a sense, Palauan possessor ascension can be thought of as a quirky subject construction: the key differences lie in the Case of the subject (Genitive rather than Dative) and the structural configuration of the two relevant DPs: there is a c-command relation that holds between them in Icelandic dative experiencer constructions, but not in Palauan possessor ascension constructions.

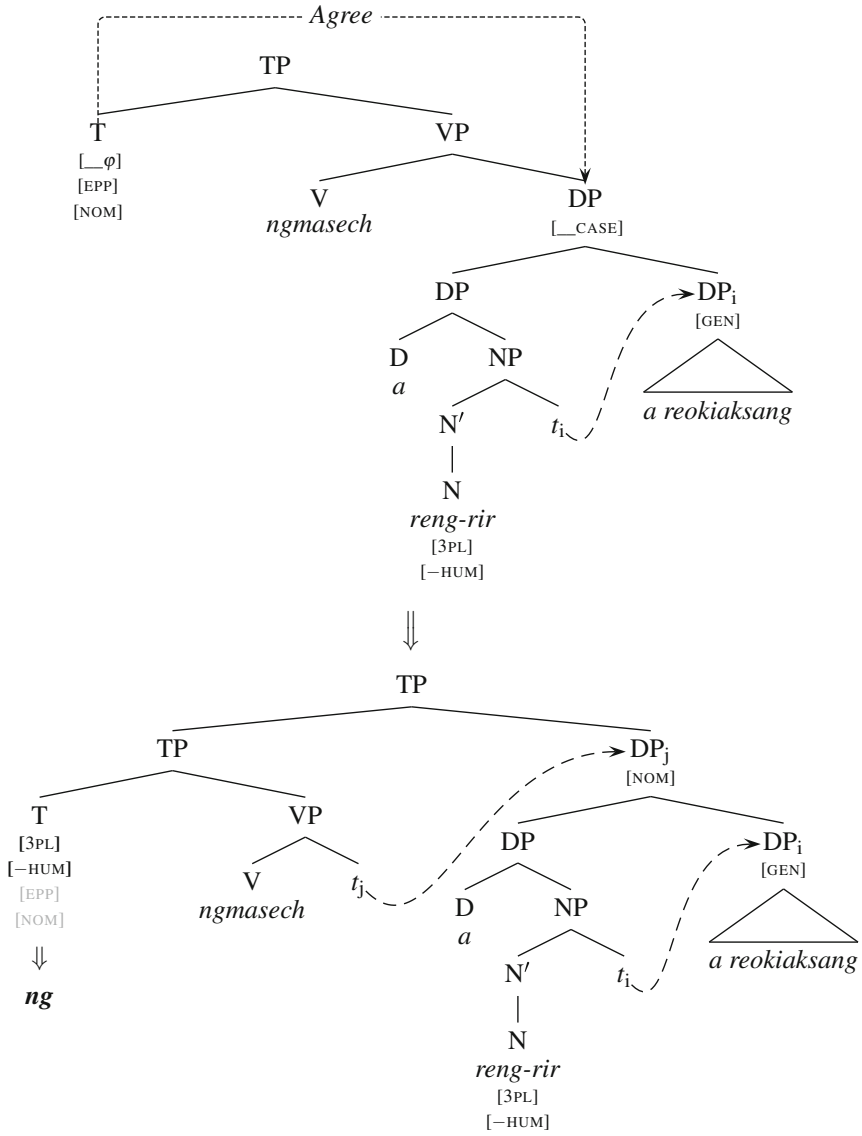
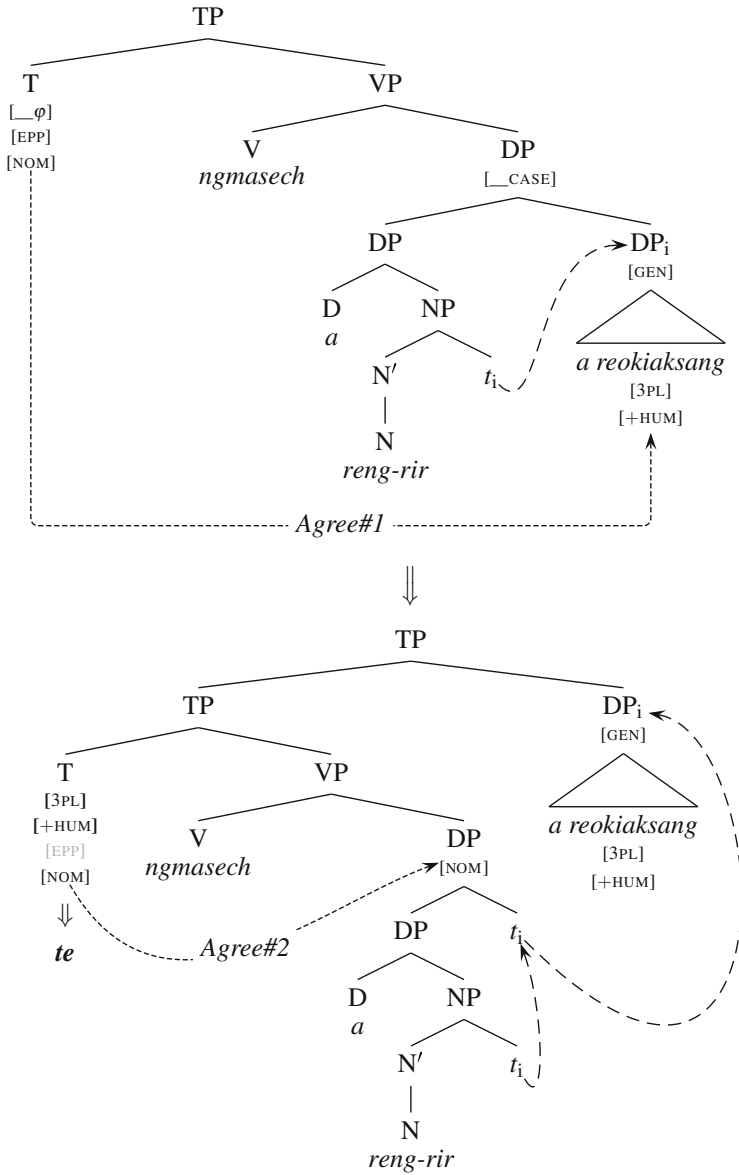


Fig. 2.10 No possessor ascension: possessee becomes subject of the clause



**Fig. 2.11** Possessor ascension: possessor becomes subject of the clause; possessee gets Nominative Case

It is noteworthy that the dissociation of  $\varphi$ -feature agreement from Nominative Case licensing seems to play out rather differently in Icelandic compared to Palauan, as an anonymous reviewer points out. In Icelandic,  $\varphi$ -feature valuation on T seems to be linked (albeit in a non-straightforward fashion) to Case valuation: if T probes a DP with an unvalued Case feature and values it Nominative, and if that Nominative DP subsequently raises to satisfy the [EPP] feature on T, then T will necessarily get its  $\varphi$ -features from that DP. On the other hand, if T licenses Nominative Case on a DP but that DP does not raise to Spec TP (because [EPP] is satisfied by expletive insertion or raising of a dative subject), then T may get its  $\varphi$ -features from the Nominative DP if they are in a sufficiently local c-command relation; otherwise T may get its  $\varphi$ -features from an intervening dative subject, or it may be spelled out with default 3SG  $\varphi$ -features. In other words, Icelandic finite T “prefers” to receive its  $\varphi$ -features from the DP whose Case feature it values, and must do so if that DP also satisfies the [EPP] feature on T, perhaps for economy reasons. This can be seen clearly in (102a) where the dative experiencer is moved out of its intervening location to allow finite T to probe deeper and select the Nominative DP as the goal. If  $\varphi$ -feature valuation were instantiated by a completely independent Agree relation in Icelandic, then we would predict that finite T could target the dative experiencer DP for  $\varphi$ -feature valuation, and then the same dative experiencer DP could move to Spec TP to satisfy the EPP, apparently contrary to fact.

By contrast, Finite T in Palauan “prefers” to receive its  $\varphi$ -features from the DP that it probes to satisfy its [EPP] feature, and does so consistently. If  $\varphi$ -feature valuation were instantiated by a completely independent Agree relation in Palauan, then we could predict that the Agree relation established to value  $\varphi$ -features on T could target the entire possessed DP and index its features for agreement, but then just the possessor DP could raise to satisfy the [EPP] feature; this is also contrary to fact.

The result is that the independent Agree relations that I have posited are not entirely independent of one another: rather, for  $\varphi$ -feature valuation is “parasitic” on Agree for Case valuation and/or Agree for [EPP] satisfaction—at least as a preferential option—and languages can differ from one another in this regard. That is, the choice of which DP values the  $\varphi$ -features of T cannot be deduced solely from economy considerations, but must be partly stipulated somehow on a language-by-language basis, or so it seems. One potential way to resolve this apparent difference between Icelandic and Palauan would be to say that satisfaction of the [EPP] must precede  $\varphi$ -feature valuation in both languages, but the difference between the two languages is that the Icelandic flavor of Agree probes the c-command domain of the relevant head, whereas the Palauan flavor of Agree probes the m-command domain of the relevant head. There are other phenomena in Palauan that exhibit agreement with specifiers, such as possessor–noun agreement in the modal nominal predicates in Table 2.3, suggesting that this might be on the right track, but a definitive investigation is outside the scope of the present work and must be left for the future.

A final important point is that in Palauan, unlike in Icelandic, subject agreement morphology can be taken as a diagnostic for subjecthood. For whatever reason, the sharing of  $\varphi$ -features between a DP and T is a reflex of the Agree relation that satisfies the [EPP] feature on T and is not associated with the Agree relation that

licenses Nominative Case. In Icelandic, we saw in (103) that  $\varphi$ -feature sharing is distinct from both [EPP]-satisfaction and Case licensing. Most Palauan DPs bear no morphological case marking—with the exception of certain Accusative Case-licensed DPs, as will be shown in the next chapter, and the possessor DPs that are marked with *er* instead of triggering possessor–noun agreement—but the fact that subject agreement morphology appears to be a true reflex of subjecthood can be viewed as a useful structural diagnostic for subject position.

To sum things up, I have argued in this chapter that the notion of *subject* has grammatical consequences in Palauan. The analysis I have constructed of the apparent requirement for Palauan clauses to have subjects is in line with most Minimalist views of subjecthood. The subject position is analyzed as the specifier position of TP, and it is filled due to a requirement that an [EPP] feature on T be satisfied. Subject agreement morphology is a reflection of a syntactic Agree relation that holds between T and the DP in its specifier position, and structural Nominative Case is licensed by finite T in the same manner—the DP in Spec TP is licensed with Nominative Case when its Case feature is unvalued, but if it is already valued with a different Case feature like [GEN], then finite T probes deeper into its c-command (or perhaps m-command) domain for the next highest DP with an unvalued Case feature. In the next chapter, I continue the investigation of grammatical relations in Palauan, focusing on data with transitive predicates and their direct objects.

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## Chapter 3

# Licensing Internal Arguments

It has now been established that subject agreement morphology and the appearance of a DP in a particular structural configuration can serve as diagnostics for the grammatical relation *subject*. This chapter is devoted to the question of whether the grammatical relation *direct object* has similar empirical support. One peculiarity that was noticed about subject agreement was that its morphological realization depends on the mood of the clause: realis or irrealis. When the mood is realis, subject agreement is registered through phonological clitics that are realized, by hypothesis, at the left edge of TP. When the mood is irrealis, subject agreement is registered morphologically on one or more of the heads in the extended verbal projection in the form of prefixes.

Similarly, we see an aspectual split in agreement morphology associated with direct objects: only verbs which have been described as *perfective* in the descriptive literature display object agreement morphology. The so-called *imperfective* verbs do not bear agreement morphology but instead mark the direct object with a morpheme that I analyze as a case-marker, *er*, which is homophonous with the preposition *er*. The aspectual split thus correlates with a difference in whether Accusative Case is realized morphologically using a head-marking or a dependent-marking pattern of case morphology (see Nichols 1986), similar to what we've already seen in the registration of possessors.

In this chapter, many morphological subtleties surrounding direct objects are presented in the data. At first glance, several of these oddities appear similar to phenomena in other languages at a superficial level, suggesting that they might be accounted for using existing analyses of antipassives, incorporation, and so forth. After careful investigation, however, they are shown to be simply idiosyncratic properties of Palauan morphosyntax for which there are clear, predictable patterns but no apparent rationale (at least to me). The upshot is that once such idiosyncrasies are clarified, we are left with a system that is very similar to direct object licensing in more familiar languages, such as English. I argue for an essentially standard analysis in which direct objects are DPs, and they are licensed for structural Accusative Case via Agree with a transitive *v* head.

### 3.1 The Morphosyntax of Direct Objects

A number of sentences that include transitive verbs have already been presented in Chaps. 1 and 2, several of which are repeated below in (111). In each sentence, there is a DP—delimited in brackets—that receives a  $\theta$ -role from the directly preceding verb.

- (111) a. Ak blechoel el meruul [a kel-el a Droteo ] *pro*.  
 1SG= always L make.IMPF [D food-3SGP D Droteo ] I  
 “I always prepare Droteo’s food.” [Josephs 1990: 23; cf. Chap. 2, ex. 63c]
- b. Ng ulemekeroul [a bung ] a del-ak er a sers-el.  
 3SG= grew.PAST.IMPF [D flowers ] D mother-1SGP P D garden-3SGP  
 “My mother was growing flowers in her garden.”  
 [Georgopoulos 1991: 40, ex. 34a; cf. Chap. 1, ex. 4a]
- c. Te ulemuchel el mo melai [er se el bukl el  
 3PL.+HUM= start.PAST L go take.IMPF [ACC that L hill L  
 beluu ] *pro*.  
 country ] they  
 “They started to invade the hill country.”  
 [Chedaol Biblia, Numbers 14:40; cf. Chap. 2, ex. 83a]
- d. Te mle bleketakl el olekebai [er a re-ngalek ]  
 3PL.+HUM= AUX.PAST openly L restrain.IMPF [ACC D PL-child ]  
*pro*.  
 they  
 “They openly held the children back.” [IK 7; cf. Chap. 1, ex. 28a]

Each of the bracketed DPs in (111) corresponds to what we would consider to be the direct object of the corresponding English sentence. In this preliminary discussion, I take the liberty to refer to such Palauan DPs prematurely as *direct objects* for expositional purposes, motivating this terminology incrementally throughout the chapter. These bracketed direct object DPs in (111) are internal arguments, receiving a theme/patient  $\theta$ -role directly from the verb, and obligatorily participate in the event denoted by the VP. There cannot be an event of preparation, growing, invasion, or restraint (holding back) instantiated by an external initiator (i.e., an agent or causer) without something else denoting that which is prepared, grown, invaded, or restrained. Sentences (111a) and (111c) show that these bracketed DPs are not subjects, as the 1SG subject agreement clitic *ak* in (111a) does not match the  $\varphi$ -features of the 3SG non-human DP *a kelel a Droteo* “Droteo’s food,” and the 3PL human subject agreement clitic *te* in (111c) does not match the  $\varphi$ -features of the 3SG non-human DP *se el bukl el beluu* “the hill country.”

Another property of direct objects in Palauan is that there is no flexibility in word order with respect to where they may appear within a clause. A direct object



describes a habitual action, and the direct object *a kelel a Droteo* ‘Droteo’s food’ does not bear overt *er*-marking because it is treated as non-specific. In (111b), the direct object *a bung* ‘flowers’ does not bear overt *er*-marking because it is treated as plural and/or non-specific. Since the direct object in (111d), *a rengalek* ‘the children,’ is +HUM, it receives overt *er*-marking even though it is plural.

Overt *er*-marking is only one of two strategies to indicate that a DP should be treated as the direct object. This process of marking direct objects with *er* is particular to verbs that are marked morphologically as imperfective. It was mentioned in the introduction to this chapter that the realization of direct objects in Palauan is closely interconnected with the aspectual interpretation of transitive verbs. When a transitive verb is perfective, its direct object is realized differently, through  $\varphi$ -feature agreement that is registered on the V head, rather than in the form of a case-marker like *er* (or  $\emptyset$ ) appearing to mark the direct object DP. Some examples of such object agreement with perfective verbs are shown in (113) and (114), where we see instances of perfective verbs formed from the roots  $\sqrt{\text{KAL}}$  ‘eat’ and  $\sqrt{\text{UES}}$  ‘see/sight,’ respectively.<sup>2</sup>

- (113) a. Ng mo kol-ii [a bobai ] *pro*.  
 3SG= AUX.FUT eat.PF-3SGO [D papaya ] he  
 ‘He is going to eat papaya/a (particular) papaya/the papaya up.’
- b. Ng mo kmang [a bobai ] *pro*.  
 3SG= AUX.FUT eat.PF [D papayas ] he  
 ‘He is going to eat papayas/some (particular) papayas/the papayas up.’
- (114) a. Ng mo mes-ang [a tolechoi ] *pro*.  
 3SG= AUX.FUT see.PF-3SGO [D baby ] he  
 ‘He will see some baby/a (particular) baby/the baby.’
- b. Ng mo mes-terir [a re-tolechoi ] *pro*.  
 3SG= AUX.FUT see.PF-3PL.+HUMO [D PL-baby ] he  
 ‘He will see babies/some (particular) babies/the babies.’

<sup>2</sup>The verbs in (113) and (114) are prime examples of the complex verbal morphophonology of Palauan. To understand how these verbs are formed, it might help to think of perfective verbalization as the infixation of *-m-* into the roots. In (113), we would have  $\sqrt{\text{KAL}}$  + *-m-* which results in the intermediate representation /kmal/. In (113a), the suffixation of *-ii* results in a shift in stress to the final syllable, which triggers coalescence of /ma/ into /ol/, resulting in the surface form *kolii*. In (113b) on the other hand, no suffixation occurs, so the intermediate form /kmal/ is a monosyllable with main stress, allowing the word-final /l/ to drop, resulting in /kma/. Finally, the velar nasal—which optionally suffixes to words ending in /a/, /o/, or /u/—is inserted, resulting in the surface form *kmang*. In (114), the verb stems both host suffixes that attract stress, so when *-m-* is infixed into the root  $\sqrt{\text{UES}}$  to yield the intermediate forms /umes-a/ and /umes-te-rit/, coalescence of /um/ before /e/ in an unstressed syllable results in /m/, yielding the surface forms *mesterir* and *mesang*, which again shows suffixation of the velar nasal. Thanks to the careful work of Wilson (1972a, b) and Flora (1974), such intricacies of Palauan morphophonology are now well-understood and derivable, despite their complexity.

**Table 3.1** (Perfective) Object agreement morphemes

		Singular	Plural	
			Inclusive	Exclusive
1st person		<i>-ak</i>	<i>-id</i>	<i>-emam</i>
2nd person		<i>-au</i>	<i>-emiü</i>	
3rd person	[+HUM]	<i>-ii</i>	<i>-(e)terir</i>	
	[-HUM]	<i>-ii</i>	Ø	

In all four sentences in (113) and (114), the bracketed DP which corresponds to the direct object does not bear the case-marker *er*. Instead, the verb hosts object agreement morphology that indexes the  $\varphi$ -features of the direct object. The object agreement morphology is overt in (113a) and (114a–b), but it is null in (113b) because the direct object is [3PL, –HUM]. This is a regular morphological paradigm gap: object agreement morphology is always null when the direct object is [3PL, –HUM], as shown in Table 3.1, which lists the (regular) object agreement suffixes that attach to perfective verb forms.<sup>3</sup>

As an aside, it is noteworthy that specificity does not play a role in the realization of object agreement morphology. In the absence of discourse context, all four bracketed direct object DPs in (113) and (114) are ambiguous between specific and non-specific interpretations, not to mention definite and indefinite interpretations. I showcase this ambiguity in the English translations of examples (113) and (114).

So far we have seen only a few examples of transitive sentences, but these examples already raise several questions, which I address over the remainder of this chapter. Section 3.2 investigates the factors which condition the differential object marking pattern that characterizes the alternation between *er* and Ø on direct objects of imperfective verbs. Section 3.3 identifies the status of the morpheme *er*, arguing that it does not occupy a position in the (narrow) syntax, but rather is inserted as a case-marker at PF when structural Case features are spelled out. A consequence of this analysis is that, structurally, direct objects are uniformly DPs, and necessarily not PPs or K[ase]Ps (see, among others, Bittner and Hale 1996a, b), despite the surface differences between the dependent-marking pattern associated with imperfective verbs and the head-marking pattern associated with perfective verbs.

Given that the difference between the two strategies to mark direct objects correlates directly with the aspectual interpretation of the verb that selects the direct object DP, it is natural to wonder what the morphosyntax of direct objects tells us about the nature of aspect in Palauan. Section 3.4 is dedicated to this very question.

<sup>3</sup>While this set of object agreement suffixes is compatible with the vast majority of Palauan perfective verbs, there is nevertheless a relatively large subclass of irregular verbs which show some variability in the form of their object agreement suffixes, typically in the 3rd person. This is one of the reasons that Georgopoulos (1991) analyzes them as true affixes rather than clitics. An example of an irregular form is the [3SG] suffix *-ang* in *mesang* “see” in (114a).



Many researchers<sup>4</sup> have noted interesting parallels between aspectual interpretation and the morphosyntactic registration of direct objects in various languages, and it is tantalizing to view the rather idiosyncratic properties of direct object morphosyntax that we have seen in the Palauan data in this section as additional evidence for the link between aspectual interpretation and properties of the internal argument. I compare the data from Palauan to that of other languages, showing that the Palauan facts differ from superficially related phenomena in these other languages in subtle but undeniable ways. Nevertheless, I suggest some preliminary hypotheses about how aspectual information might integrate into Palauan phrase structure.

The question of how direct objects are licensed is treated in Sect. 3.5, which shows that Accusative is a structural (and not an inherent) Case, and that direct objects are licensed via an Agree relation similar to the one that licenses Nominative. The question of which functional head licenses Accusative Case (Asp or  $\nu$ ) is also investigated in the context of the vagueness surrounding the correct analysis of aspect, and I advocate an analysis that identifies transitive  $\nu$  as the Accusative Case-licensing head. I close the chapter with a simple rule-based analysis of how the morphology associated with direct object licensing is inserted after Spell Out.

## 3.2 Differential Object Marking

As we saw above in (111), the presence or absence of accusative *er* depends on the values of animacy, number, and specificity features on the direct object DP. What I show in this section is that the use of *er* as an accusative case marker is distinct from its usage as a traditional preposition. Instead, it appears to be a differential object marker, as its alternation with a  $\emptyset$  form is attested only with direct object DPs.<sup>5</sup>

In Palauan, the differential object marking alternation described in Sect. 3.1 is a phenomenon unique to direct objects of imperfective verbs. To recall the descriptive generalization, the case-marker *er* appears overtly whenever the direct object

<sup>4</sup>See for example Tenny (1987, 1994), Krifka (1992), Travis (1992, 2005, 2010), Ramchand (1997), Arad (1998a, b), Ritter and Rosen (2000), Kratzer (2004) and Coon (2013).

<sup>5</sup>Note the homophony between Palauan's only preposition, *er*, and the accusative case marker *er*. It is not uncommon crosslinguistically for languages to utilize/reanalyze prepositional, locative, or dative morphemes as accusative case markers in differential object marking systems—a fact that presumably calls for some explanation. In addition to Spanish personal *a*, which marks human direct objects and is homophonous with the preposition *a* (see (169) through (171) later in this chapter), an anonymous reviewer provides some other examples. In Hindi, the postposition *-ko* marks both recipients in ditransitive clauses as well as highly animate/specific themes in mono-transitives. In Malagasy, pronouns, proper names of humans, and (optionally) DPs introduced by a demonstrative take the proclitic *an-* when they occur in direct object position; *an-* also functions as a locative marker. These patterns of homophony might have some structural basis, or they might be the by-product of a common grammaticalization path for the creation of differential object marking. Unfortunately, I cannot say anything interesting or intelligent about the rationale behind the homophony between the differential object marker *er* in Palauan and the preposition *er*. It is my hope that future research can uncover the reason for this homophony in language after language.

**Table 3.2** Distribution of the accusative case marker *er* on DPs with different features

	Human		Non-human	
	Singular	Plural	Singular	Plural
Specific	<i>er</i>	<i>er</i>	<i>er</i>	∅
Non-specific	<i>er</i>	<i>er</i>	∅	∅

satisfies *at least one* of the criteria in (115). The result of satisfying different combinations of these criteria is represented schematically in Table 3.2.

(115) DESCRIPTIVE CRITERIA FOR OVERT REALIZATION OF THE ACCUSATIVE CASE-MARKER *er*:

- a. Either the direct object is human, or
- b. the direct object is both singular and specific.

Below, I demonstrate that animacy, number, and specificity are indeed the three features that govern the accusative case-marking alternation. To this end, much use will be made of the set of demonstrative determiners, which have distinct forms for use with human/non-human DPs as well as singular/plural DPs. They can thus transparently indicate the animacy and number features of particular DPs, and also ensure that the DPs are treated as specific. To force a non-specific reading for a DP, I also frequently use the negative polarity item *ngü di* “any” embedded within a question environment. When the NPI *ngü di* “any” occurs in a DP within the scope of a downward-entailing operator (such as a question; see Ladusaw 1979, 1980; for an overview, see Giannakidou 2011 and references therein), the DP is necessarily non-specific. We can use this fact to probe the specificity restriction on the accusative case marker *er*.

Let’s first consider the humanness criterion in (115a). As is shown below, direct object DPs that are +HUM are marked overtly with the accusative case marker *er* regardless of whether they are singular as in (116) and (118), plural as in (117), specific as in (116) and (117), or non-specific as in (118).

- (116) A Steven a olengeseu [\**(er)* ngke el chad ].  
 D Steven TOP help.IMPF [\**(ACC)* that L person ]  
 “Steven is helping **that person**.” [ +HUM, SG, +SPEC ]
- (117) A Steven a olengeseu [\**(er)* tirke el chad ].  
 D Steven TOP help.IMPF [\**(ACC)* those L people ]  
 “Steven is helping **those people**.” [ +HUM, PL, +SPEC ]

- (118) Ke ullengeseu [\**(er)* a ngii di el chad ] er a elecha el sils?  
 2SG= help.PAST.IMPF [\**(ACC)* D any L person ] P D now L day  
 “Did you help **anybody** today?” [ +HUM, SG, –SPEC ]

Put simply, if a DP is +HUM, then it is marked with *er* regardless of the values of its other features.

That leaves non-human direct object DPs. Since they do not satisfy the criterion in (115a), then in order to be marked with *er*, they must be both singular and specific, as in (119). If they are either plural as in (120) or non-specific as in (121), then the accusative case marker *er* may not appear.

- (119) A Sally a menguiu [\**(er)* se el hong ].  
 D Sally TOP read.IMPF [\**(ACC)* that L book ]  
 “Sally is reading **that book**.” [ –HUM, SG, +SPEC ]

- (120) A Sally a menguiu [(*\*er*) aike el hong ].  
 D Sally TOP read.IMPF [(*\*ACC*) those L books ]  
 “Sally is reading **those books**.” [ –HUM, PL, +SPEC ]

- (121) Ke mi/lenguiu [(*\*er*) a ngii di el hong ] er a elecha el sils?  
 2SG= PAST.read.IMPF [(*\*ACC*) D any L book ] P D now L day  
 “Did you read **any (a single) book** today?” [ –HUM, SG, –SPEC ]

Table 3.2 is quite reminiscent of the lattice structure that Aissen (2003: 459, Fig. 4) proposes to analyze patterns of differential object marking cross-linguistically. Analyses of these patterns in languages from various families typically rely on some combination of animacy (or humanness) and specificity (or definiteness) hierarchies to determine whether a particular direct object DP receives overt or null case morphology. A strikingly similar pattern exists in Persian (Lazard 1982: 181–183), where the restriction on when accusative marking can appear overtly is determined by specificity. When direct objects are inanimate and non-specific, they do not bear the accusative suffix *-râ*, as shown in (122).

- (122) PERSIAN NON-SPECIFIC DIRECT OBJECT:  
 Ketâb-Ø mixânad.  
 book CONT.he.read  
 “Er liest (irgend-)ein Buch.” [Bossong 1985: 63]  
 (trans. “*He is reading some book (or other).*” –JN)

Specific indefinite objects can be partitive as in (123) or have the sense of *a certain* as in (124). Persian specific indefinite direct objects bear the case marking suffix *-râ*, regardless of which of these two interpretations they have. Definite direct objects also bear *-râ*, as in (125).

## (123) PERSIAN PARTITIVE SPECIFIC DIRECT OBJECT:

Yeki az ân ketâbhâ-râ xândam.

INDEF of DEM books-ACC I.read

“I read one of these books.”

[Lazard 1982: 183]

## (124) PERSIAN “a certain” SPECIFIC DIRECT OBJECT:

(Yek) ketâb-i-râ xând ke...

INDEF book-INDEF-ACC he.read which

“He read a certain book which...”

[Lazard 1982: 181]

## (125) PERSIAN DEFINITE DIRECT OBJECT:

Ketâb-râ xândam.

book-ACC I.read

“I read the book.”

[Lazard 1982: 181]

Consequently, it appears that Persian *-râ* marking obeys a similar specificity criterion to that which conditions Palauan *er* marking. Like in Palauan, sufficiently animate direct objects can be marked with *-râ* even if they are non-specific. For example, compare (126), in which the direct object *xarguç-râ* “rabbit” is marked with *-râ* and refers to living rabbit animals, to (127), in which the direct object *xarguç* “rabbit” is not marked with *-râ* and refers to rabbit meat.

## (126) PERSIAN ANIMATE NON-SPECIFIC DIRECT OBJECT:

Xarguç-râ dust dâram.

rabbit-ACC liking I.have

“I like rabbits.”

[Aissen 2003: 470, ex. 44a]

## (127) PERSIAN INANIMATE NON-SPECIFIC DIRECT OBJECT:

Xarguç-Ø dust dâram.

rabbit liking I.have

“I like rabbit.”

[Aissen 2003: 470, ex. 44b]

Similar animacy and/or specificity restrictions on when overt accusative case morphology can appear on a direct object have been attested in many other languages as well. I provide additional representative examples below from Finnish in (128), Turkish in (129), and Amharic (130).

## (128) FINNISH:

- a. Maija luki **kirjan**  
 Maija read book.ACC  
 “Maija read (all) the book.” [Heinämäki 1984: 154, ex. 4c]
- b. Maija luki **kirjaa**  
 Maija read book.PART  
 “Maija was reading a book.” [Heinämäki 1984: 154, ex. 4b]

## (129) TURKISH:

- a. Ali bir **kitab-ı** aldı.  
 Ali one book-ACC bought  
 “A book is such that Ali bought it.” [Enç 1991: 5, ex. 14]
- b. Ali bir **kitap** aldı.  
 Ali one book bought  
 “Ali bought some book or other.” [Enç 1991: 5, ex. 15]

## (130) AMHARIC:

- a. setijo **säwje-w-n** gäddäl-ätftj  
 woman man-DEF-ACC kill.PF-3SG.FEMS  
 “A woman killed the man.” [Ahland 2006: 1, ex. 4]
- b. setijo **säwje** gäddäl-ätftj  
 woman man kill.PF-3SG.FEMS  
 “A woman killed a man.” [Ahland 2006: 1, ex. 3]

The reason I have drawn a parallel between the Palauan differential object marking pattern and similar patterns in other languages is to highlight that these patterns, while typologically rare, are nevertheless attested in various language families. In Persian, Finnish, Turkish, and Amharic, the presence of an overt realization of the accusative case marker on the direct object DP depends on some combination of animacy and specificity features, just like in Palauan. And like Persian, Finnish, Turkish, and Amharic, Palauan exhibits the pattern solely with direct object DPs.

Subjects, possessors, obliques, and adjuncts do not participate in similar alternations involving *er*: they are either uniformly marked with *er* or uniformly not marked with *er*, depending on the conditions of their environments, but not depending on the features of the DPs themselves. I show this systematically below.

Sentences (131) and (132) demonstrate that human and non-human subjects, respectively, are not marked with *er*, regardless of whether they are singular, plural, specific, or non-specific.

## (131) HUMAN SUBJECTS:

- a. Ng songerenger **ngke el chad**.  
 3SG= hungry that L person  
 “That person is hungry.” [ +HUM, SG, +SPEC]
- b. Te songerenger **tirke el chad**.  
 3PL.+HUM= hungry those L people  
 “Those people are hungry.” [ +HUM, PL, +SPEC]
- c. Ng songerenger **a ngii di el chad?**  
 3SG= hungry D any L person  
 “Is anyone hungry?” [ +HUM, SG, –SPEC]

## (132) NON-HUMAN SUBJECTS:

- a. Ng kedorem **se el bad**.  
 3SG= sharp that L stone  
 “That stone is sharp.” [ –HUM, SG, +SPEC]
- b. Ng kedorem **aike el bad**.  
 3PL.–HUM= sharp those L stones  
 “Those stones are sharp.” [ –HUM, PL, +SPEC]
- c. Ng kedorem **a ngii di el bad?**  
 3SG= sharp D any L stone  
 “Is there a sharp stone? (lit. “Is any stone sharp?”)  
 [ –HUM, SG, –SPEC]

I turn now to possessor DPs. As we saw in Chap. 1, Sect. 1.2.2.2, there are two patterns by which possession is expressed in Palauan. Under both patterns, the possessor follows the possessed noun. The first pattern involves possessor agreement, realized morphologically on the possessed noun. The possessor itself is not marked morphologically (with *er* or otherwise), regardless of whether it is individuated (sufficiently animate or specific). This is shown in (133) and (134).

## (133) HUMAN POSSESSORS, WITH AGREEMENT:

- a. A Melii a melemed a tebel-el **ngke el chad.**  
 D Melii TOP wipe.off.IMPF D tables-3SGP that L person  
 “Melii is wiping off that person’s tables.” [+HUM, SG, +SPEC]
- b. A Melii a melemed a tebel-ir **tirke el chad.**  
 D Melii TOP wipe.off.IMPF D tables-3PL.+HUMP those L people  
 “Melii is wiping off those people’s tables.” [+HUM, PL, +SPEC]
- c. Ng melemed a tebel-el **a ngii di el chad** a Melii?  
 3SG= wipe.off.IMPF D tables-3SGP D any L person D Melii  
 “Is Melii wiping off anyone’s tables?” [+HUM, SG, –SPEC]

## (134) NON-HUMAN POSSESSORS, WITH AGREEMENT:

- a. A Droteo a mended a rechel-el **se el kerrekar.**  
 D Droteo TOP cut.off.IMPF D branches-3SGP that L tree  
 “Droteo is cutting off that tree’s branches.” [–HUM, SG, +SPEC]
- b. A Droteo a mended a rechel-ir **aike el kerrekar.**  
 D Droteo TOP cut.off.IMPF D branches-3PL.–HUMP those L trees  
 “Droteo is cutting off those trees’ branches.” [–HUM, PL, +SPEC]
- c. Ng mo mended a rechel-el **a ngii di el kerrekar** a  
 3SG= AUX.FUT cut.off.IMPF D branches-3SGP D any L tree D  
 Droteo?  
 Droteo  
 “Is Droteo going to cut off branches from a tree?” (lit. “Is Droteo going  
 to cut off any tree’s branches?”) [–HUM, SG, –SPEC]

Under the second pattern of possession, possessors are introduced by *er*, while the possessed noun is not inflected for possessor agreement. Even despite the fact that *er* is involved, animacy, number, and specificity play no decisive role in determining whether *er* is pronounced. It is always pronounced.

## (135) HUMAN POSSESSORS, WITHOUT AGREEMENT:

- a. Ak mo omekedong a katuu **er ngke el chad.**  
 1SG= AUX.FUT call.IMPF D cats P that LNK person  
 “I will call that person’s cats.” [+HUM, SG, +SPEC]
- b. Ak mo omekedong a katuu **er tirke el chad.**  
 1SG= AUX.FUT call.IMPF D cats P those LNK people  
 “I will call those people’s cats.” [+HUM, PL, +SPEC]
- c. Ke mo omekedong a katuu **er a ngii di el chad?**  
 2SG= AUX.FUT call.IMPF D cats P D any L person  
 “Are you going to call anyone’s cats?” [+HUM, SG, –SPEC]

## (136) NON-HUMAN POSSESSORS, WITHOUT AGREEMENT:

- a. Ng so-al a redil a chazi **er se el kuabang.**  
 3SG= desire-3SGP D woman D taste P that L guava  
 “The woman likes the taste of that guava.” (lit. “The taste of that guava is the woman’s desire.”) [–HUM, SG, +SPEC]
- b. Ng so-al a redil a chazi **er aike el kuabang.**  
 3SG= desire-3SGP D woman D taste P those L guavas  
 “The woman likes the taste of those guavas.” [–HUM, PL, +SPEC]
- c. Ng so-al a redil a chazi **er a ngii di el kuabang?**  
 3SGP desire-3SGP D woman D taste P D any L guava  
 “Does the woman like the taste of guava?” (lit. “Is the taste of any guava the woman’s desire?”) [–HUM, SG, –SPEC]

The sentences in (135) and (136) show that the featural composition of the possessor DP does not determine whether *er* will co-vary with a null form. This stands in contrast with the marking of direct objects with *er*, e.g., in (116) through (121), where *er* co-varies with a null form depending on the features of the DP it marks.

Oblique arguments in Palauan are introduced in a variety of ways. Here, I examine recipient and goal arguments. Recipients and goals may be introduced with the expression *el mo er* (lit. “to go to”), and *er* remains overt, regardless of the animacy, number, or specificity of the recipient or goal DP.

## (137) HUMAN RECIPIENTS:

- a. A Gigi a ngil-uu a kall **el mo er a del-al.**  
 D Gigi TOP PAST.bring.PF-3SGO D food L go P D mother-3SGP  
 “Gigi brought the food to her mother.” [+HUM, SG, +SPEC]
- b. A Gigi a ngil-uu a kall **el mo er a re-okiak.**  
 D Gigi TOP PAST.bring.PF-3SGO D food L go P D PL-guest  
 “Gigi brought the food to the guests.” [+HUM, PL, +SPEC]
- c. Ng ngil-uu a kall a Gigi **el mo er a ngii di el chad?**  
 3SG= PAST.bring.PF-3SGO D food D Gigi L go P D any L person  
 “Did Gigi bring the food to anyone?” [+HUM, SG, –SPEC]

## (138) NON-HUMAN GOALS:

- a. A Ioseb a ulemekall er a mli-l **el mo er a bli-k.**  
 D Joseph TOP drive.PAST ACC D car-3SGP L go P D house-1SGP  
 “Joseph drove his car to my house.” [–HUM, SG, +SPEC]



- b. A Ioseb a ulemekall er a mli-l **el mo er aike el stoang.**  
 D Joseph TOP drive.PAST ACC D car-3SGP L go P those L stores  
 “Joseph drove his car to those stores.” [–HUM, PL, +SPEC]
- c. Ng ulemekall er a mli-l a Ioseb **el mo er a ngii di el**  
 3SG= drive.PAST ACC D car-3SGP D Joseph L go P D any L  
**beluu?**  
 place  
 “Did Joseph drive his car anywhere?” (lit. “Did Joseph drive his car to  
 any place?”) [–HUM, SG, –SPEC]

The data in (17) and (18) shows that the presence of *er* in recipient/goal arguments does not co-vary with a null form depending on the animacy, number, and specificity features of the recipient/goal. There is no empirical basis for analyzing *er* in the expression *el mo er* as anything other than a preposition.

Many non-human adjunct DPs (e.g., locative and temporal adverbials) are also introduced by the preposition *er*. The pair of sentences in (139), below, demonstrates that plurality of the DP in the adjunct phrase does not determine whether *er* is licensed. The *er* morpheme co-occurs with both singular DPs like *a Merilang* “Manila” in (139a) and plural DPs like *a iungs er a Marialas* “the Mariana Islands,” unlike the number-driven contrast in direct object marking between (119) and (120), above.

(139) NON-HUMAN LOCATIVE ADVERBIALS:

- a. Ak ulemechar er tia el siats **er a Merilang.**  
 1SG= buy.PAST ACC this L shirt P D Manila  
 “I bought this shirt in Manila.” [–HUM, SG, +SPEC]
- b. Ak ulemechar er tia el siats **er a iungs er a Marialas.**  
 1SG= buy.PAST ACC this L shirt P D islands P D Marianas  
 “I bought this shirt in the Mariana Islands.” [–HUM, PL, +SPEC]

It has now been shown that the differential object marking pattern—in which direct objects of imperfective verbs are alternately marked with *er* or  $\emptyset$  depending on the animacy, number, and specificity features of the direct object—does not extend to subjects, possessors, obliques, or adjuncts. The alternation between *er* and  $\emptyset$  is a feature of direct object marking only, and it was shown that other languages exhibit similar alternations in direct object marking based on the interaction of similar animacy and specificity features, including Persian, Finnish, Turkish, and Amharic. Despite the additional morphology associated with direct objects, I argue in the next section that direct objects have the internal syntactic structure of DPs,

and that the overt realization of the accusative case marker *er* is not the morphological exponent of a syntactic head like P or K, but rather a dissociated morpheme that is inserted after Spell Out. The evidence for this claim comes from derived objects of raising-to-object verbs and causatives.

### 3.3 Internal Structure of Direct Objects

The goal of this section is to determine whether the morpheme *er* that marks direct objects of imperfective verbs is the morphological exponent of a syntactic head, or whether it is simply a dissociated morpheme that is inserted after Spell Out. The details of three competing analyses are summarized in (140) through (142).

- (140) **ANTIPASSIVE ANALYSIS:** Transitive imperfective verbs take only PP complements, and never DP complements, because imperfective verbs are antipassives that cannot license internal argument DPs. When direct objects of imperfective verbs are marked with *er*, the morpheme *er* is an instance of the Palauan preposition *er*, which is the morphological exponent of a P head in the syntax. When direct objects do not bear the *er*-marker, they are still PPs, but with a null P head.
- (141) **ALTERNATING STRUCTURAL/INHERENT CASE ANALYSIS:** Transitive imperfective verbs take only DP complements, just like transitive perfective verbs. A certain subset of these DP complements is licensed with structural Accusative Case—depending on the features of the direct object—and such DPs are marked with the accusative case-marker *er*. Other DP complements of direct objects of imperfective verbs are not marked with *er*—again depending on their features—and by assumption receive some inherent Case, which should correlate with some difference in interpretation.
- (142) **UNIFIED ACCUSATIVE CASE ANALYSIS:** All transitive verbs in Palauan—imperfective and perfective alike—take only DP complements, and they all receive structural Accusative Case. When direct objects of imperfective verbs are marked with *er*, the morpheme *er* is an accusative case marker that is inserted after Spell Out, on the PF branch of the derivation. The morpheme *er* is a dissociated morpheme (in the sense of Embick 1997; see also Embick and Noyer 2001: 558): there is no syntactic head of which it is the morphological exponent. When direct objects of imperfective verbs do not bear the *er*-marker, Accusative Case has no morphological exponent.

The three analyses in (140) through (142) make different predictions with respect to the nature of the direct object, how it is introduced into the syntax, and the operations that it may or may not participate in, given its status. I explore the predictions of each analysis below, showing eventually that the only analysis that can account for all the facts is the unified Accusative Case analysis in (142).

In the antipassive analysis in (140), direct objects of imperfective verbs are not DPs at all, ever. They are actually not even direct objects at all, since imperfective verbs are analyzed as antipassives, which cannot license Case. Instead, they are demoted internal arguments that must be represented obliquely. From a comparative standpoint, the analysis is attractive. In the closely related language Chamorro, the antipassive form of transitive verbs is formed using the prefixes *man-* (realis) and *fan-* (irrealis), which resemble the Palauan imperfective transitive verbalizer *meN-*, as shown in (143).<sup>6</sup>

(143) CHAMORRO:

- a. *Humanao pära u-fañ-akki guini gi un lanchu-n taotao.*  
 AGR.go FUT AGR-AP-steal here LOC a farm-L person

“(The two) went to steal over here at somebody’s farm.”

[Chung 1998: 38, ex. 35a]

- b. *Asta pa’gu ti man-hóhonggi yu’ nu ennao ädyu i siñát*  
 until now not AGR-AP-believe.PROG I OBL that that the sign  
*ginin i chächaflik.*  
 from the dying.one

“Even now I still don’t believe in those signs from the dead.”

[Chung 1998: 38, ex. 35b, citing Cooreman 1983: 184]

In the Chamorro examples above, the verbs *u-fañ-akki* “steal” and *man-hóhonggi* “believe” appear in their antipassive forms, and as such do not license a direct object. If the antipassive analysis in (140) is correct, then Palauan imperfective verbs are like Chamorro antipassives, in that they cannot license direct object DPs either. The argument that appears right-adjacent to Palauan imperfective verbs could not be a DP, and it certainly could not be a direct object.

<sup>6</sup>Fortin (2006) also argues that Indonesian *meng-* is a 3rd person indefinite clitic object pronoun that acts as an antipassive marker. Her analysis accounts for some key phenomena in Indonesian, but an antipassive analysis is unlikely to be tenable for Palauan *meN-*, as *meN-* appears even on verbs with derived objects like causatives and raising-to-object verbs, as described below.

However, there is evidence that the antipassive analysis in (140) cannot be correct, which comes from the morphosyntactic patterns in raising-to-object constructions (see Bresnan 1972: Chap. 3 et seq.).<sup>7</sup> Abstracting away from the differences in analytical treatments of the phenomenon, raising-to-object constructions are those in which a transitive verb takes an infinitival clause as its complement, and the subject of the infinitival clause is treated as the direct object of the main clause. Consider the following example of an English raising-to-object construction in (144).

(144) Cindy believes Marcia to be a genius. [Runner 2006: 193, ex. 1]

In (144), the raising-to-object predicate *believe* takes an infinitival clause complement. Note that *Marcia* does not receive a theme  $\theta$ -role from the verb *believe*. What Cindy believes is not *Marcia* but rather *that it is true that Marcia is a genius*. Nevertheless, the DP *Marcia* cannot receive Case in the infinitival clause and appears to serve as a grammatical direct object of the sentence. For instance, *Marcia* can be passivized and become the subject of the main clause, as shown in (145), and take the form of a reflexive pronoun if co-referent with the matrix subject (English reflexives are systematically disallowed in subject positions), as in (146).

(145) Marcia is believed to be a genius (by Cindy).

(146) Marcia<sub>i</sub> believes herself<sub>i</sub> to be a genius.

In Palauan, there are several raising-to-object predicates that take infinitival clause complements, including *meruul* “cause; make,” *mengiil* “expect,” and *omdasu* “think; consider.” When these sentences are in the perfective aspect, the raising-to-object verb—having no DP direct object of its own—agrees with the infinitival clause’s subject. But because these are raising-to-object predicates, the matrix verb does not assign a  $\theta$ -role to *a Farao* “the king (pharaoh)” in (147a) or *a beluu er a Juda* “the towns of Judah” in (147b), both of which are bracketed.<sup>8</sup>

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<sup>7</sup>Raising-to-object constructions are also known as exceptional case marking (ECM) constructions, depending on the theoretical assumptions one makes. See Rosenbaum (1967), Kiparsky and Kiparsky (1970), Chomsky (1973, 1981), Postal (1974), Lasnik and Saito (1991) and Runner (1995, 1998, 2006).

<sup>8</sup>Note the word order in (147) and (148), in which the (bracketed) embedded subject appears directly to the right of the verb. The word order appears to be the result of clause extraposition, like that seen in (90) and (91) in Chap. 2, but unfortunately I do not have clean evidence to support that analysis. What is important, however, is that the embedded subjects receive  $\theta$ -roles from the embedded predicates, but trigger object agreement on the matrix verb.

- (147) a. A Rubak a rirel-lii [a Farao ]<sub>i</sub> el mo  
 D Lord TOP PAST.make-PF.3SGO [D pharaoh ] L become  
 medecherecher a reng-ul *t<sub>i</sub>*.  
 hard D heart-3SGP  
 “The Lord made the king stubborn.” (lit. “The lord made the pharaoh  
 hard-hearted.”) [*Chedaol Biblia*, Exodus 14:8]
- b. Ak mo rul-leterir [a re-chad er a Ekipten ]<sub>i</sub>  
 1SG= AUX.FUT make.PF-3PL.+HUMO [D PL-person P D Egypt ]  
 el mo mengull er a re-ched-ak *t<sub>i</sub>*.  
 L AUX.FUT respect.IMPFF ACC D PL-person-1SGP  
 “I will make the Egyptians respect my people.”  
 [*Chedaol Biblia*, Exodus 3:21]
- c. Ak mo remuul [a beluu er a Juda ]<sub>i</sub> el di mo  
 1SG= AUX.FUT make.PF [D towns P D Judah ] L just become  
 che/loit *t<sub>i</sub>* el diak a re-chad el kiei er ngii.  
 RES.abandon L no D PL-person L live P there  
 “I will make the towns of Judah like a desert where no one lives.”  
 [*Chedaol Biblia*, Jeremiah 34:22]

The situation is similar to that of the English example in (144): the embedded subjects in (147) cannot be Case-licensed by the embedded non-finite T, but instead get their Case from the transitive verb, which exhibits object agreement morphology matching the  $\varphi$ -features of the embedded subject.

We can use these facts to test a prediction of the antipassive analysis in (140). On this analysis, imperfective transitive verbs are analyzed as antipassives. Their complements are analyzed as PPs, because although the antipassive verbs cannot Case license direct object DPs, PPs do not need Case. The prediction that emerges from the antipassive analysis in (140) is that raising-to-object verbs should not be able to appear in the imperfective form, because if they cannot Case license a direct object DP, they should not be able to license the embedded subject of an infinitival clause complement either. And yet, we do see attested examples of raising-to-object constructions in the imperfective form, as in (148) below. The embedded subjects—which get their  $\theta$ -roles from within the embedded clause—are marked with *er*, just as they would be if they were standard DP direct objects selected by a transitive verb.

- (148) a. A Rehina a ulemdasu [er ngii ]<sub>i</sub> el kmal klou el dil *t<sub>i</sub>*  
 D Rehina TOP think.PAST [ACC herself ] L very big L girl  
 e le ng mle oubail er a dores.  
 because 3SG= AUX.PAST wear ACC D dress.  
 “Rehina thought herself to be a big girl because she was wearing a  
 dress.” [KK 2]

- b. Kom mengiil [er a re-chad er a Ekipten ]i el mo oltobed  
 2PL= expect.IMPF [ACC D PL-person P D Egypt ] L FUT take.out.IMPF  
 a kuruma me a re-chad er a uos el mei t<sub>i</sub>!  
 D chariots and D PL-person P D horse L come

“You expect the Egyptians to send (you) chariots and cavalry!”

[*Chedaol Biblia*, 2 Kings 18:24]

In (148a), the embedded subject *ngii* “herself” is +HUM, as is the embedded subject *a rechad er a Ekipten* “the Egyptians” in (148b). If they were direct objects, both of these DPs would satisfy the criteria to be marked with *er* in (115). The fact that they are both marked as if they were direct object DPs suggests that they are just that: direct object DPs. To be clear, I assume that the bracketed DPs in (148):

- i. were base-generated in the embedded clause (where they receive their  $\theta$ -roles),
- ii. move to Spec TP to satisfy the [EPP] feature on T, but
- iii. cannot be Case-licensed by non-finite T, so they instead get structural Accusative Case from the matrix predicate.<sup>9</sup>

I take the data in (148) to be evidence against the antipassive analysis in (140), and evidence that direct objects of imperfective verbs are DPs, not PPs. The only way to save the antipassive analysis would be to posit that subjects of non-finite clauses must be able to be PPs as well. This prediction is clearly not borne out in non-finite clauses outside the context of raising-to-object constructions.

Turning to the alternating structural/inherent Case analysis in (141), we can also test several predictions. Recall that this analysis assumes that the presence or absence of *er* correlates with whether the DP is Case-licensed with the canonical structural Accusative Case for direct objects or is marked with an inherent Case like Partitive.<sup>10</sup> This analysis makes a clear prediction. If the reason that a particular subset of direct objects of transitive imperfective verbs is not marked with *er* is because those direct objects receive an inherent Case from the verbs themselves, then we would predict that the alternation should occur only on DP complements to those verbs that license the inherent Case. We can test this prediction using the morphological causative construction, in which one of the causativizing verb prefixes, like *omek-* or *ol-*, combines with an event-denoting VP (such causative constructions are discussed in more detail in Chap. 5; see, e.g., Fig. 5.8). What is important is that the direct objects of these causative predicates are derived, and they correspond to what would have been the external arguments of the predicate in the embedded VP. For

<sup>9</sup>I remain agnostic as to whether a raising-to-object analysis or an ECM analysis is superior. Although it does seem clear from the position of the case-marked DP that movement has occurred, there is not yet sufficient empirical evidence in Palauan that the moved DP is in the matrix clause for me to advocate one analysis over the other.

<sup>10</sup>The name of such a Case is purely theoretical, as the morphology indicating it is null and it is not clear what semantic contribution it would add. Calling it Partitive is arbitrary; it could also be called Dative, or simply Inherent.

example, the optionally transitive verb *menga* “eat” can have a subject that is human as in (149a), singular and specific as in (149b), or non-human plural as in (149c).

- (149) a. Ng menga a tolechoi.  
 3SG= eat.IMPF D baby  
 “The baby is eating.”
- b. Ng menga *pro*.  
 3SG= eat.IMPF it  
 “It is eating.”
- c. Ng menga a kel-el aika el cherem-ir.  
 3PL.–HUM= eat.IMPF D food-3SGP these L pets-3PL.+HUMP  
 “Their pets eat his food.”

The root  $\sqrt{\text{KAL}}$  is the stem of the verb *menga* “eat.” When  $\sqrt{\text{KAL}}$  is causativized with the prefix *omek-* to form *omeka* “feed,” the agent of the eating event—with its new grammatical relation of direct object in the complex causative predicate—exhibits the same case-marking alternation as canonical direct objects do. The case marking is fully predictable from the features of the DP in question, as described in the criteria in (115) and shown in the examples in (150), cf. (149).

- (150) a. Ak uleme-kang [er a tolechoi ].  
 1SG= CAU.PAST-eat.IMPF [ACC D baby ]  
 “I was feeding the baby.”
- b. Ng uleme-ka [er ngii ] el olab a bebil er a kel-el.  
 3SG= CAU.PAST-eat.IMPF [ACC it ] L using D some P D food-3SGP  
 “(The poor man had only one lamb...) He would feed it some of his own food.”  
 [Chedaol Biblia, 2 Samuel 12:3]
- c. Ng bek el klebese el tirka el obekel a ome-ka [aika el  
 3SG= every L night L these L couple TOP CAU-eat.IMPF [these L  
 cherem-ir ].  
 pets-3PL.+HUMP ]  
 “Every day (lit. night), the couple feed their pets.” [OO 2]

Additional examples of the same alternation can be seen with the causativization of the verb *merael* “walk,” used intransitively in (151). When causativized with the causative prefix *omek-*, the resulting verb *omekrael* “lead; guide” takes a (derived) direct object, which is the agent of the walking sub-event. Compare (151) to (152).<sup>11</sup>

<sup>11</sup>Note that Josephs (1990: 364) lists *meiko* and *muiko* for “blind,” while Ramarui and Temaël (1999: 221) list only *meiko*. As the correct spelling of the Palauan word for “blind” in (152a) is

- (151) Ak merael el mo er a mado.  
 1SG= walk.IMPf L go P D window  
 “I’m walking to the window.” [CP 39]
- (152) a. A bilis a omek-rael [er a mikeiu el chad ].  
 D dog TOP CAU-walk.IMPf [ACC D blind L person ]  
 “The dog is leading the blind person.”
- b. Ng mle kir-ir el omek-rael [er a  
 3SG= AUX.PAST obligation-3PL.+HUMP L CAU-walk.IMPf [ACC D  
 beluu ].  
 nation ]  
 “They were supposed to lead the nation.” [Chedaol Biblia, Isaiah 19:13]
- c. ...e omek-rael [a och-id ] el mo er a rael er a  
 ...and CAU-walk.IMPf [D feet-1PL.INCLP ] L go P D path P D  
 budech.  
 peace  
 “...guide our steps into the path of peace.” [Chedaol Biblia, Luke 1:79]
- d. A l-olekoi a re-mellomes a reng-rir el chad a ko  
 D 3S.IRR-say D PL-bright D hearts-3PL.+HUMP L person TOP like  
 er aike el derromel el kerrekar el l-olab a re-mengkar a  
 P those L sharpened L sticks L 3S.IRR-use D PL-guard D  
 sib el omek-rael [a sib ].  
 sheep L CAU-walk.IMPf [D sheep ]  
 “The sayings of the wise are like the sharp sticks that shepherds use to  
 guide sheep.” [Chedaol Biblia, Ecclesiastes 12:11]

Again, the presence or absence of the case-marker *er* in the bracketed direct objects in (152a–d) is fully predictable from the features of the direct object; see the criteria in (115).

If the alternation in morphological case-marking (between *er* and  $\emptyset$ ) were to correlate with whether the direct object had received structural or inherent Case (respectively), as is claimed in the alternating structural/inherent Case analysis in (141), then the prediction that we should see such alternations only in complements of V heads is not borne out in the data in (150) and (152). All of the sentences in these examples contain direct objects that are not selected as complements of V

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(Footnote 11 continued)

controversial, I have (without consequence) chosen to leave my consultant’s spelling of *mikeiu* intact, should this somehow be of use to future researchers. The important point to take away from this sentence is not the spelling of any particular word but rather that the derived object *a mikeiu el chad* “the blind person” is [+HUM, SG, +SPEC] and is marked with *er*.



but rather are derived through causativization, and yet the predictable morphological alternation between *er* and  $\emptyset$  persists. The data strongly suggests that the alternation between *er* and  $\emptyset$  does not correlate with a difference in whether the direct object is licensed with structural versus inherent Case, as is claimed in (141).<sup>12</sup>

We have now seen data that is incompatible with the hypotheses in (140) and (141), but all of the data we have seen thus far is compatible with the unified Accusative Case analysis in (142), namely that all direct objects of imperfective verbs are DPs, and that they all are licensed with structural Accusative Case. Specifically, I take (148) to be strong evidence against the antipassive analysis in (140), and (150) and (152) to be strong evidence against the alternating structural/inherent Case analysis in (141). If the unified Accusative Case analysis in (142) is correct, as I assume for the remainder of this book, then there are several conclusions that can be drawn about differential object marking in Palauan. First, the morpheme *er* that marks (some) direct objects in Palauan is not a preposition, and it does not signal that the verb is an antipassive. I argue later in this chapter that *er* is a dissociated morpheme inserted after Spell Out, on the PF branch of the derivation. Second, the marking of some direct objects with *er* and others with  $\emptyset$  is fully predictable from the features of the direct object, as described in (115), and does not indicate a difference in aspect, Case, etc. As such, the choice of *er* versus  $\emptyset$  has implications for what the direct object may or may not denote with respect to humanness, number, and specificity, but does not have semantic consequences beyond registering these three features. Put differently, the presence of *er* serves to register particular feature values of the DP, but does not impact DP-external syntax. Third, if the direct objects of transitive imperfective verbs are uniformly DPs, as the data suggests, then the syntax of imperfective VPs may be quite similar to that of perfective VPs. In Sect. 3.4, I lay out my assumptions about aspect in Palauan and the role that the direct object does or does not play in the computation and interpretation of aspect.

### 3.4 Direct Objects and Aspectual Interpretation

Recall that direct objects of perfective verbs are never marked with *er*. Instead, they trigger object agreement suffixes on their selecting verbs, with the exception of [3PL, –HUM] direct objects for which there is a paradigm gap. Since it is all and only transitive perfective verbs that display object agreement, it is natural to wonder whether direct objects of perfective verbs are licensed for abstract Case in a manner wholly distinct from direct objects of imperfective verbs. Recent analyses of the connection between telicity and the bounding of an event by a direct object have been pursued by Ramchand (1997), Arad (1998a, b), Ritter and Rosen (2000), Kratzer (2004), Travis (2005, 2010), and Coon (2013) building on the work of Tenny (1987, 1994), Krifka (1992), and Travis (1992).

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<sup>12</sup>Recall the Persian examples in (126) and (127), the Finnish examples in (128), the Turkish examples in (129), and the Amharic examples in (130). The alternating structural/inherent Case analysis might be a good candidate to explain the facts in these languages.

The core of many of these proposals centers around the idea that there is some intermediate projection between VP and vP that checks Case on direct objects of transitive telic predicates, with various names for this projection. The idea is that if the direct object directly figures in the calculation of the telicity of a predicate, then a functional head carrying aspectual information (we might call it Asp) stands in some relation with the direct object DP. Depending on the details of each analysis, the direct object may raise to the specifier position of this head, or else the head may license structural Case in an Agree relation with the direct object DP. In this section, I develop this type of analysis of Palauan's vP-internal syntax, and I show that while such an analysis is possible for Palauan, the evidence for it is weak, and there are several reasons to be skeptical about adopting it. In response, I develop an alternative analysis that is also compatible with the data, and raises some interesting questions about how feature bundling can form lexical items in different languages.

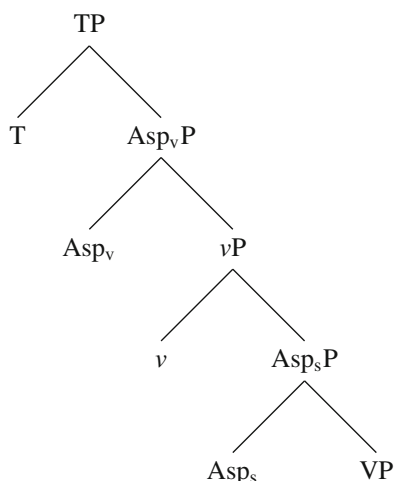
Before presenting these two alternative analyses, however, it is worth clarifying what *aspect* means in the context of the transitive predicates that we have seen in this chapter. The literature has been concerned with two different varieties of aspect: viewpoint aspect on one hand, and situation aspect on the other (the terminology is taken from Smith 1991, 1997). In the introduction to her book *Inner Aspect*, Travis (2010) summarizes the difference between these two types of aspect very elegantly:

At the outset, we should distinguish between two uses of the term “aspect,” which Smith (1991) refers to as viewpoint aspect and situation aspect. Viewpoint aspect is morphological or grammatical aspect such as imperfective/perfective. For many syntacticians, dealing with viewpoint aspect simply involves creating another head within the inflectional domain of a clause. This head would be used to house relevant morphological material that would then feed into the semantic component (for two syntactic accounts, see Zagana 1994; Stowell 1995). Situation aspect refers to Aktionsart or aspectual verb classes such as Accomplishment, Achievement, Activity/Process, and State (e.g., Vendler 1967). It is much less clear that this sort of aspect has a place in the syntax since it is rarely realized morphologically and its interpretation depends on a number of elements such as the choice of verb, type of object, type of prepositional complement, etc. [Travis 2010: 1]

The two types of aspect that Travis describes above have received many names in the literature. Viewpoint aspect has also been called grammatical aspect, functional aspect, and outer aspect, whereas situation aspect has also been called Aktionsart, lexical aspect, and inner aspect. For consistency and clarity, I adopt Smith's (1991, 1997) terminology “viewpoint aspect” and “situation aspect” in the following discussion.

The program developed by Demirdache and Uribe-Etxebarria in a series of papers (see Demirdache and Uribe-Etxebarria 2000, 2004, 2005) is perhaps one of the most formal syntactico-semantic characterizations of the relationship between viewpoint aspect and situation aspect that I am aware of in the literature. Furthermore, Travis's (2010) book introduces and motivates syntactic structure that makes strong crosslinguistic predictions about how viewpoint and situation aspect interact and can be represented morphosyntactically. I adopt the essential assumptions in Travis's and Demirdache and Uribe-Etxebarria's respective programs in what follows, in particular Travis's claim that viewpoint aspect and situation aspect have realizations in the syntax and occupy Asp<sub>v</sub> and Asp<sub>s</sub> respectively, as shown in the schema in Fig. 3.1.

**Fig. 3.1** Articulated VP with viewpoint and situation aspect projections; cf. Travis (2010: 5, ex. 4)



Travis (2010) argues—based on data from a number of languages—that viewpoint aspect and situation aspect are both encoded syntactically. Situation aspect is computed within the predicate, and so she calls it “inner aspect.” Viewpoint aspect (per Demirdache and Uribe-Extbarria) relates an event time (i.e., the domain of *vP*) to an utterance time (i.e., the domain of *TP*) and is encoded (morpho-)syntactically in between those two projections to formalize the relation between them.

So, does (im)perfective morphology in Palauan mark viewpoint aspect or situation aspect? I believe that the answer to this question is that the morphology marks viewpoint aspect, and not situation aspect. I provide evidence for this view below, showing that Palauan (im)perfective morphology does not change the situation aspect of the predicate directly, but rather induces preferential interpretations of situation aspect, which are cancelable. First, I show that from a morpheme ordering perspective, (im)perfective morphology in Palauan is introduced outside of causative morphology. If Baker’s (1985) Mirror Principle is correct, the ordering suggests that the morphology associated with imperfective versus perfective aspect is external to the predicate and not included in the computation of situation aspect, whose domain is the predicate XP that corresponds to the event. Second, I show that the imperfective/perfective alternation can also be found with transitive stative verbs, and in such cases, the alternation does not affect the situation aspect of the predicate, but rather indicates a pragmatic difference in whether a particular event’s existence and completion is implied versus entailed. Finally, I show that despite the fact that imperfective and perfective morphology is absent in passives—since it can only appear on transitive verbs—the distinct aspectual interpretations that are coerced by the (viewpoint) aspect morphology in transitives can still be coerced in passives with the right context. The passive data shows that the computation of situation aspectual class can proceed just fine without the presence of (im)perfective morphology.

### 3.4.1 (*Im*)perfective Morphology and Viewpoint Aspect

With the proper assumptions, one of the simpler arguments for the classification of aspect morphology as encoding viewpoint or situation aspect—besides its semantic contribution—is its location in the word relative to other morphology. Consider one such assumption, Baker’s *Mirror Principle*, below in (153).

- (153) MIRROR PRINCIPLE: Morphological derivations must directly reflect syntactic derivations (and vice versa). [Baker 1985: 375, ex. 4]

Travis (2010), assuming some version of (153), shows that aspect morphology that appears outside of the causative *pag-* morpheme in Tagalog marks viewpoint aspect but that aspect morphology that appears between *pag-* and the root marks situation aspect (Travis 2010: 53–62). I will now make a similar argument for imperfective and perfective morphology in Palauan.

In Table 3.3, we see that transitive imperfective and perfective verbs in Palauan that are each formed from the same root are morphologically distinct. Imperfective verbs are formed when the verbalizer prefixes *meN-* or *oN-* attach to roots, while the *-(e)m-*, *-u-*, and *-o-* infixes form perfective verbs from roots.<sup>13</sup> Recall that perfective verbs host stress-attracting suffixes that register the  $\varphi$ -features of the direct objects they agree with, which can trigger phonological (and thus orthographic) changes in the stem. For this reason, I have selected the 3PL, –HUM forms of perfective verbs in Table 3.3 because 3PL, –HUM object agreement is null and stress does not shift, and it is easier to see the infixation of the perfective verbalizer infixes *-(e)m-*, *-u-*, and *-o-* into the corresponding root.

Palauan has a few different causative morphemes, and a full overview of the morphosyntax of the various morphemes would take us too far afield from the current discussion of aspect (but see Josephs 1997: Chap. 9). Let it suffice to say that there is one causative prefix that is very productive, and whose underlying form I analyze as *uek-* based on its surface representation in various related verb forms, including passives (formed through prefixation of *me-*; see below, and Chap. 5) and resultatives (formed through infixation of *-(e)l-*; see Chap. 6).<sup>14</sup> For example, the root  $\sqrt{\text{DAKT}}$  “fright; fear” can become either a noun *dakt* “fear” or a stative verb *medakt* “be afraid; fear,” but it can also form the basis for the causative verb *omekdakt* “frighten; scare” (imperfective). The passive form of *omekdakt* is *mukdakt* “get/be frightened” (which I analyze as *m(e)-* + *uek-* +  $\sqrt{\text{DAKT}}$ ) and the corresponding

<sup>13</sup>The *meN-/oN-* prefixes are Palauan’s reflexes of pan-Austronesian (or at least pan-Malayo-Polynesian) *maN-*, with a change of Proto *\*n > l*, which explains the appearance of [l] instead of [n] in applications of nasal substitution with alveolar inputs. The two forms *meN-* and *oN-* are phonologically conditioned allomorphs, alternating predictably according to the shapes of the stems to which they attach. The set of infix allomorphs represents Palauan’s instantiation of pan-Austronesian/Malayo-Polynesian *-um-*.

<sup>14</sup>Palauan *uek-* is presumably cognate with Tagalog *pag-*.

**Table 3.3** Palauan transitive verb morphology

Palauan √ROOT	English gloss	Transitive perfective ([3PL, -HUM] D.O.)	Transitive imperfective
√TEMOTEM	“clear”	tomotem	melemotem
√DASECH	“carve”	dmasech	melasech
√SESEB	“burn”	suesebe	melesebe
√LECHET	“bandage”	lmechet	melechet
√NGUKED	“fine”	ngmuked	meluked
√KIIS	“unlock”	kmiis	mengiis
√KAL	“eat”	kma(ng)	menga
√CHAUS	“put lime on”	chemaus	mengaus
√BOES	“shoot”	moes	omoes
√MDALEM	“aim at”	mdalem	omdalem

resultative adjective form is *ulekdakt* “frightened” (which I analyze as  $-(e)l-$  + *uek-* + √DAKT). Without further argument, and without consequence, I take the root-external morphology of *mukdakt* and *ulekdakt* as support for *uek-* as the underlying form of the relevant causative prefix.

Now, what is relevant to our understanding of imperfective and perfective morphology is its location with respect to the causative morpheme, and its corresponding semantics. In the sentences below in (154) and (155), we can see that the transitive verb forming morphemes *oN-* (imperfective) and *-m-* (perfective) appear outside of the causative prefix *uek-* in (154a) and (155a), respectively.<sup>15</sup> The past tense forms of (154a) and (155a) are given in (154b) and (155b).

- (154) a. Ak omek-dakt er a uel.  
 1SG= CAU.IMPF-fear ACC D turtle  
 “I’m scaring the turtle.”  
 (IMPLIED: “I am doing an action to scare the turtle.”)
- b. Ak ulemek-dakt er a uel.  
 1SG= CAU.IMPF.PAST-fear ACC D turtle  
 “I was scaring the turtle.”  
 (IMPLIED: “I was doing an action to scare the turtle.”)

<sup>15</sup>The details of the morphophonology are tangential to the current discussion. But to be precise, I analyze the imperfective verb *omekdakt* in (154a) as *oN-* + *uek-* + √DAKT. The nasal substitution induced by *oN-* results in /u/ → /m/. I analyze the perfective verb *mekdaktii* in (154b) as *-m-* + *uek-* + √DAKT + -ii. The infixation of *-m-* into *uek-* results in the sequence /umek/, in which /um/ undergoes coalescence and becomes simply /m/. Even if my morphological analysis turns out to be flawed, what is crucial is that the causative prefix does not appear outside of the aspect morphology, yielding (unattested) forms like *\*uek-melakt* (imperfective) or *\*uek-dmakt* (perfective).

- (155) a. Ak mek-dekt-ii a uel.  
 1SG= CAU.PF-fear-3SGO D turtle  
 “I’m scaring the turtle.”  
 (IMPLIED: “I am doing an action that is scaring the turtle.”)
- b. Ak m/lek-dekt-ii a uel.  
 1SG= PAST.CAU.PF-fear-3SGO D turtle  
 “I scared the turtle.”  
 (IMPLIED: “I did an action that scared the turtle.”)

If Travis is right, and the realization of aspect morphology in an “outer” position indicates viewpoint aspect—and not situation aspect—then it appears that the imperfective/perfective distinction in Palauan registers a difference in viewpoint aspect. But note the (intended) interpretations of the predicates in (154) and (155). The transitive verb *omekdakt* “frighten; scare” is an accomplishment predicate, in that it has a natural endpoint built into its meaning. The imperfective sentences in (154) do not entail that whatever was being done to try to scare the turtle actually succeeded in scaring it. By contrast, the perfective sentences in (155) do entail that the turtle was scared. The difference is not a semantic shift in aspectual class, but rather a pragmatic shift in whether it is implied or entailed that the event is telic (i.e., that its endpoint has been reached).

This type of pragmatic flexibility can be seen even more clearly in transitive stative verbs, which also alternate between imperfective and perfective forms. Below, the verbs *medengei* “know,” *omtab* “understand,” and *melatk* “remember” are shown in naturally occurring sentences that contain their imperfective forms in (156) and their perfective forms in (157).

- (156) a. Ng di kau el tang a **medengei** a uldesu-ir a rokui  
 3SG= just you L one D know.IMPF D thoughts-3PL.+HUMP D all  
 el chad.  
 L people  
 “You alone know the thoughts of the human heart.”  
 [Chedaol Biblia, 1 Kings 8:39]
- b. Ke dirk **melatk** er ngak?  
 2SG= still remember.IMPF ACC me  
 “Do you remember me?”  
 [Chedaol Biblia, 1 Samuel 1:26]
- c. Ngak, a Rubak, a di mo blechoel el **melatk** er a  
 I D Lord TOP just AUX.FUT always L remember.IMPF P D  
 re-ched-ak.  
 PL-person-1SGP  
 “I, the Lord, will always remember my people.”  
 [Chedaol Biblia, Exodus 28:12]

- d. Ng m/o sebec-ir a re-chad el **omtab**  
 3SG= PAST.become ability-3PL.+HUMP D PL-person L understand.IMPF  
 er ngii.  
 ACC it  
 “The people could understand it.” [Chedaol Biblia, Nehemia 8:8]

- (157) a. Kom mo **medenge-lii** a klemerang.  
 2PL= AUX.FUT know.PF-3SGO D truth  
 “You will know the truth.” [Chedaol Biblia, John 8:32]
- b. Ak mo **lotk-ii** a telbil-ek er kemiu.  
 1SG= AUX.FUT remember.PF-3SGO D plan-1SGP P you.PL  
 “I will remember my promise to you.” [Chedaol Biblia, Genesis 9:15]
- c. Ng diak le-sebec-ir el **mteb-engii** se el  
 3SG= become.PAST ability-3PL.+HUMP L understand.PF-3SGO this L  
 dilubech.  
 PAST.happen  
 “They cannot understand what happened.”  
 [Chedaol Biblia, Deuteronomy 32:29]

The imperfective verbs in (156) and the perfective verbs in (157) all belong to the same aspectual class (stative), and the fact that these stative verbs also exhibit the familiar alternation provides another type of evidence that (im)perfective morphology does not encode situation aspect. I speculate at the end of this section about the reason why these stative verbs alternate between imperfective and perfective forms.

The final type of evidence that suggests that Palauan (im)perfective morphology encodes viewpoint aspect and not situation aspect comes from the domain of passives. Some verbs have imperfective and perfective variants with different but related meanings, e.g., *omes* “watch” (imperfective) versus *mes* “see” (perfective). In addition to translating differently into English, they are compatible with different scenarios. For example, the imperfective variant *omes* can also mean “babysit” when its direct object is a child, but the perfective form *mes* cannot mean “babysit.” While this interaction with the core predicate semantics initially appears to be evidence that Palauan (im)perfective morphology indeed encodes situation aspect—contrary to what I am arguing—I will show that the computation of situation aspect can proceed even in the absence of (im)perfective morphology, and that the correlation between aspectual class and imperfective or perfective morphology is due to a selectional relationship, along the lines of the proposal in de Swart (1998).

First, consider the differences between the logical scenarios described by (158) and the anomalous scenarios described by (159).

- (158) a. IMPERFECTIVE COMPATIBLE WITH “GOOD BEHAVIOR” SCENARIO:

Ng sebec-ek el **omes** er a ngalek e le ng  
 3SG= ability-1SGP L see.IMPF ACC D child because 3SG=  
 mle ungil a blekerdel-el er tia el m/o  
 AUX.PAST good D behavior-3SGP P this L PAST.become  
 merek el taem.  
 finished L time

“I can watch/babysit the child because he behaved well last time.”

- b. PERFECTIVE COMPATIBLE WITH “YELLOW SHIRT” SCENARIO:

Ng sebec-ek el **mes-ang** a ngalek e le ng  
 3SG= ability-1SGP L see.PF-3SGO D child because 3SG=  
 oubail er a bibrurek el cheleched-al a bail.  
 wear.IMPF ACC D yellow L torso-3SGP D clothing

“I can see the child because he’s wearing a yellow shirt.”

- (159) a. IMPERFECTIVE INCOMPATIBLE WITH “YELLOW SHIRT” SCENARIO:

#Ng sebec-ek el **omes** er a ngalek e le ng  
 3SG= ability-1SGP L see.IMPF ACC D child because 3SG=  
 oubail er a bibrurek el cheleched-al a bail.  
 wear.IMPF ACC D yellow L torso-3SGP D clothing

(“I can watch/babysit the child because he’s wearing a yellow shirt.”)

- b. PERFECTIVE INCOMPATIBLE WITH “GOOD BEHAVIOR” SCENARIO:

#Ng sebec-ek el **mes-ang** a ngalek e le ng  
 3SG= ability-1SGP L see.PF-3SGO D child because 3SG=  
 mle ungil a blekerdel-el er tia el m/o  
 AUX.PAST good D behavior-3SGP P this L PAST.become  
 merek el taem.  
 finished L time

(“I can see the child because he behaved well last time.”)

For straightforward reasons, Palauan speakers find it odd that a child’s wearing a yellow shirt is necessary for somebody to be able to watch/babysit him or her, and it is similarly odd that a child’s good behavior is a prerequisite for his or her visibility.

Interestingly, this aspectual alternation between the imperfective and perfective forms of transitive verbs like *omes* is neutralized in passives, which cannot contain imperfective or perfective morphology and are ambiguous between the two interpretations, as shown in (160).



(160) PASSIVE COMPATIBLE WITH BOTH SCENARIOS:

- a. Ng sebec-el a ngalek el **o-bes** e le ng mle ungil  
 3SG= ability-3SGP D child L PASS-see because 3SG= AUX.PAST good  
 a blekerdel-el er tia el m/o merek el taem.  
 D behavior-3SGP P this L PAST.become finished L time  
 “The child may be watched/babysat because he behaved well last time.”
- b. Ng sebec-el a ngalek el **o-bes** e le ng oubail er  
 3SG= ability-3SGP D child L PASS-see because 3SG= wear.IMPV ACC  
 a bibrurek el cheched-al a bail.  
 D yellow L torso-3SGP D clothing  
 “The child can be seen because he is wearing a yellow shirt.”

The fact that the passive verb *obes* “(be) watched/seen” is compatible with both scenarios in (160) suggests that imperfective/perfective morphology is not required to calculate the situation aspect of *obes*. Instead, it appears that situation aspect morphology is either null (in  $Asp_s$ ) or bundled with homophonous variants of the passive verbalizer morpheme *m(e)-* (in *v*; see Chap. 5 for more details).

At this point, we have seen three types of evidence that what have been called imperfective and perfective forms of verbs in the Palauan literature encode viewpoint aspect, and not situation aspect. The first type of evidence was morphological in nature and involved the relative ordering of (im)perfective morphology outside of causative morphology, suggesting that it is not instantiated within the core predicate VP. The second type of evidence was semantic in nature and showed that even verbs that unambiguously have stative situation aspect—like *medengei* “know,” *melatk* “remember,” and *omtab* “understand”—can host both imperfective and perfective morphology, further suggesting that this morphology encodes viewpoint aspect and not situation aspect. Finally, the fact that imperfective and perfective morphology is not required to compute aspectual class in passives suggests that this morphology does not encode aspectual class at all, but rather might be *indirectly* related to the computation of situation aspect via selectional relations, as has been proposed by de Swart (1998) and Travis (2010: Chap. 8).

### 3.4.2 Aspect Selection and Coercion

This section focuses on selectional relations, and whether they can help motivate the “inner aspect” structure for Palauan that Travis (2010) posits between VP and  $vP$ , i.e., the projection headed by  $Asp_s$  in Fig. 3.1. Although we do not see any overt morphology directly associated with situation aspect in Palauan, we saw in (158) and (159) that the distinction between the process/activity predicate *omes* “watch”

and the achievement predicate *mes* “see” (both formed from the root  $\sqrt{\text{UES}}$  “sight”) correlates with the appearance of imperfective and perfective morphology. An open question is: If perfective morphology in Palauan is not an indicator of situation aspect, then why (for certain lexical roots such as  $\sqrt{\text{UES}}$ ) is the situation aspect restricted at all?

The question brings to my mind cases of what Moens (1993) and de Swart (1998) have described as situation aspect coercion, in which a predicate with a particular situation aspect (or aspectual class, in the terminology of Vendler 1967) can combine with additional lexical/syntactic material that is compatible only with a different situation aspect, forcing a shift in aspectual class. Below, I list several examples based on those in Moens (1993) to illustrate this type of situation aspect coercion.

- (161) a. John played.  
 b. John played the sonata.  
 c. John played the sonata for a few minutes/hours/years. [cf. Moens 1993: 46]

The process/activity predicate in (161a) has no natural endpoint; the length of time during which John played is unknown (and irrelevant to the truth conditions of the sentence). The process/activity predicate in (161a) is coerced into an accomplishment predicate in (161b) through addition of a quantized direct object; the event terminates when the sonata has been played all the way through (and this is crucial in the determination of the truth conditions of the sentence). The accomplishment predicate in (161b) is coerced back into a process/activity predicate in (161c) with the addition of the duration adverbial. Whether, when, or how many times John finished playing the sonata is again irrelevant to the truth conditions of (161c).

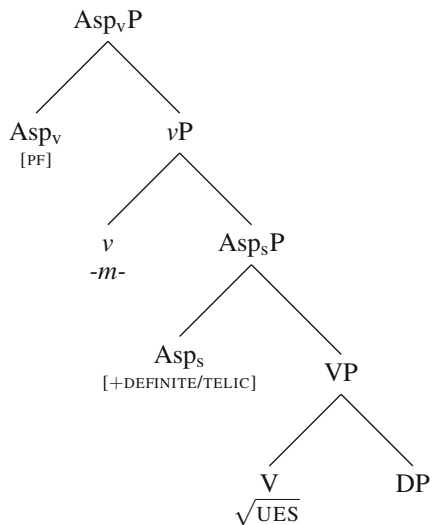
Travis (2010: Chap. 8), building on the ideas of de Swart (1998), proposes that such coercion is due to operators that appear in (inner)  $\text{Asp}_s$  (recall Fig. 3.1), which can be morphologically overt in some languages (e.g., *ha-* in Malagasy) but null in others (e.g., French). The purpose of coercion operators is to change the aspectual class of the predicate (VP) so that it can be compatible with other syntactic elements that it interacts with. To illustrate the type of selectional requirements that trigger coercion, de Swart cites the difference between French *imparfait* (which I gloss as IMPF) and *passé simple* (which I gloss as PS); see (162) below.

- (162) FRENCH:  
 a. Anne était triste.  
 Anne was-IMPF sad  
 “Anne was sad.” [de Swart 1998: 367, ex. 25b]  
 b. Anne fut triste.  
 Anne was-PS sad  
 “Anne was sad.” [de Swart 1998: 367, ex. 25a]

Native French speakers describe the difference in meaning between (162a) and (162b) as having to do with the moment in time and duration of the Anne’s sadness. Specifically, the use of the *imparfait* in (162a) highlights that Anne was sad for some duration of time in the past, whereas the use of the *passé simple* in (162b) highlights that there was a particular moment in time when Anne started being sad. De Swart, following Kamp and Rohrer (1983), ascribes the difference in interpretation to selectional requirements of the two tenses: *imparfait* is a past tense that selects a stative eventuality, whereas *passé simple* is a past tense that selects an event.<sup>16</sup> According to de Swart and Travis, if one of these tenses combines with a predicate of the wrong situation aspect, then a coercion operator is needed to shift the aspectual class of the predicate such that it satisfies the selectional restrictions. As such, the operator necessary to accommodate the *passé simple* in (162b) is an INCHOATIVE operator that transforms the state *être triste* “be sad” into an inchoative event “be(come) sad.” For Travis, this coercion operator occupies the head responsible for situation aspect:  $Asp_s$ .

If we think of the relationship between the Palauan perfective and the achievement reading of *mes* “see” as one of selection, then we might make sense of some of the differences in interpretation between imperfective and perfective predicates. For example, imagine that perfective aspect is an instance of  $Asp_v$  that selects a  $vP$  complement, and it requires that this  $vP$  denote an event that is [+TELIC]. In Travis’s system, this is equivalent to saying that  $Asp_v$  selects a  $vP$  that contains an  $Asp_s$

**Fig. 3.2** Syntactic decomposition of *mes* “see”  
( $-m-$  +  $\sqrt{UES}$ )



<sup>16</sup>Travis (2010: 268) uses slightly different terminology. She says that *imparfait* selects a homogeneous expression, whereas *passé simple* selects a quantized expression. What is important for the present discussion is simply that there is a selectional relation that targets a particular aspect.

bearing the feature [+DEFINITE], i.e., a  $vP$  that is an achievement or accomplishment predicate, in Vendler's (1967) terminology. With these assumptions in place, *mes* "see" can be represented structurally as in Fig. 3.2.

To summarize, I am speculating about whether the syntactic head that hosts perfective morphology might select [+TELIC] predicates, while the corresponding imperfective head has no such selectional requirements and is free to combine with any type of predicate. If this analysis is on the right track, then it makes predictions about what other verbs with imperfective and perfective morphology can and cannot mean; i.e., there are clear predictions about the truth conditions of verbs. Let's reconsider the sentences in (154) and (155), repeated below.

- (154) a. Ak omek-dakt er a uel.  
 1SG= CAU.IMPF-fear ACC D turtle  
 "I'm scaring the turtle."  
 (IMPLIED: "I am doing an action to scare the turtle.")
- b. Ak ulemek-dakt er a uel.  
 1SG= CAU.IMPF.PAST-fear ACC D turtle  
 "I was scaring the turtle."  
 (IMPLIED: "I was doing an action to scare the turtle.")
- (155) a. Ak mek-dekt-ii a uel.  
 1SG= CAU.PF-fear-3SGO D turtle  
 "I'm scaring the turtle."  
 (IMPLIED: "I am doing an action that is scaring the turtle.")
- b. Ak mi/ek-dekt-ii a uel.  
 1SG= PAST.cau.pf-fear-3SGO D turtle  
 "I scared the turtle."  
 (IMPLIED: "I did an action that scared the turtle.")

Recall that in the imperfective sentences in (154), the turtle's becoming scared is only an implicature, whereas in (155) it is an entailment. If it's true that perfective  $Asp_v$  selects only [+TELIC]  $vPs$  whereas imperfective  $Asp_v$  may combine with  $vPs$  that are either [+TELIC] or [-TELIC] (i.e., they have no restrictions on the telicity of their complements), then perhaps the difference in whether the turtle's being scared is an implicature as in (154) or an entailment as in (155) can be traced to lexical ambiguity. If there are no overt  $Asp_s$  morphemes in Palauan, but  $Asp_s$  can host [ $\pm$ TELIC] features, then the sentences in (154) are ambiguous between atelic and telic situation aspect interpretations because imperfective  $Asp_v$  does not have any selectional restrictions. The result is a cancelable implicature that the turtle is scared, since the null morphology does not give clues about whether  $Asp_s$  is [+TELIC] or [-TELIC]. However, the sentences in (155) must have telic interpretations—yielding

an entailment that the turtle is scared—because the overt perfective morphology indicates that the null  $Asp_s$  must be [+TELIC] due to its selectional restrictions.

A selectional restriction on perfective  $Asp_v$  that requires its complement to be a [+TELIC] event might also shed light on the reason why transitive statives like *medengei* “know,” *melatk* “remember,” and *omtab* “understand” alternate between perfective and imperfective forms. The situation is perhaps analogous to the difference in meaning induced by the *imparfait* and *passé simple* in the French sentences in (162). Consider the contexts in which the imperfective form is used in the sentences in (156), in contrast to the contexts in which the perfective form is used in the sentences in (157), all of which are repeated below. As is often true in empirical investigations of aspect, native speakers’ judgments are subtle, and researchers must exhibit great care to elicit data in the context of appropriate scenarios to ensure that native speaker consultants provide reliable data. But in view of the data in (156) and (157), which is taken from the Palauan translation of the English *Good News Bible*, I will tentatively suggest that something like an implication versus entailment of telicity is what characterizes the choice between imperfective and perfective morphology in these sentences. I have left the English source of each of the Palauan translations intact, and as a result they might not necessarily be exact translations of the Palauan sentences, as stylistic changes have been made during translation. These stylistic changes have consequences for the interpretation of aspect in the sentences and are discussed below.

- (156) a. Ng di kau el tang a **medengei** a uldesu-ir a rokui  
 3SG= just you L one D know.IMPF D thoughts-3PL.+HUMP D all  
 el chad.  
 L people  
 “You alone know the thoughts of the human heart.”  
 [Chedaol Biblia, 1 Kings 8:39]
- b. Ke dirk **melatk** er ngak?  
 2SG= still remember.IMPF ACC me  
 “Do you remember me?”  
 [Chedaol Biblia, 1 Samuel 1:26]
- c. Ngak, a Rubak, a di mo blechoel el **melatk** er a  
 I D Lord TOP just AUX.FUT always L remember.IMPF P D  
 re-ched-ak.  
 PL-person-1SGP  
 “I, the Lord, will always remember my people.”  
 [Chedaol Biblia, Exodus 28:12]
- d. Ng m/o sebec-ir a re-chad el **omtab**  
 3SG= PAST.become ability-3PL.+HUMP D PL-person L understand.IMPF  
 er ngii.  
 ACC it  
 “The people could understand it.”  
 [Chedaol Biblia, Nehemia 8:8]



“became.” I take this sentence to mean that at the present moment in time, they cannot understand what happened. Sentence (157c) differs from (156d) in that if they do positively understand what happened at a particular moment, the sentence will necessarily be false, and that moment is right now, as indicated by the present tense.

I do not have any independent evidence for the interpretations that I have ascribed to (154), (155), (156), or (157). Nevertheless, the purpose of this section has been to illustrate what we might gain in our understanding of the morphology, syntax, and semantics of aspect in Palauan if Kamp and Rohrer (1983), Moens (1993), de Swart (1998), and Travis (2010) are right, and functional heads can select predicates with particular features introduced by  $Asp_s$  (situation aspect). If the aspectual operators that trigger situation aspect coercion were overt in Palauan, as at least some have been shown to be in Malagasy, then we would obviously have clearer evidence. For now, we will have to wait for further cross-linguistic research on aspect coercion and selection to identify other indications of (and diagnostics for) their existence besides overt morphology.

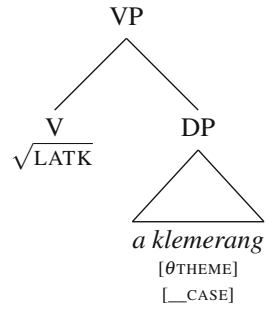
The key point to take away from this discussion is that (im)perfective morphology does not directly determine telicity, boundedness, or situation aspect, as we saw especially in the data involving transitive stative verbs in (156) and (157) and passives in (160). Instead, this morphology correlates with different viewpoint aspect interpretations, and it merely interacts with situation aspect from a location higher in the structure through either selection or extended projection, by hypothesis. There is no evidence that these aspect features are realized in the core predicate XP, and furthermore that they have anything to do with licensing direct objects.

### 3.5 DP-Licensing and Morphological Case

In this section, I lay out the basis of an essentially Minimalist analysis of the structure of transitive  $v$ Ps, arguing that they have a uniform syntactic structure for both imperfective and perfective predicates. I propose that Accusative Case is licensed via Agree, citing data involving asymmetric case-marking patterns with coordinated direct objects. The important conclusion is that Accusative Case in Palauan is a structural (and not an inherent) Case, and that the Agree relation that licenses direct objects is similar to the one that licenses subjects. I also consider how aspect should best be represented syntactically in Palauan, and show that the data does not argue overwhelmingly for a particular analysis. I conclude the section with some speculation about how some of the aspectual patterns investigated in Sect. 3.4 can be explained, given the syntactic analysis that is developed.

I begin by building up the phrase structure necessary to account for the facts in this chapter, followed by the mechanisms necessary to license internal arguments as direct objects. The sentences for which the derivation is being constructed are given in (163a) for the imperfective variant and (163b) for the perfective variant. The derivation focuses on the content of the bracketed portions in (163): the verb, the direct object, and their associated morphology.

**Fig. 3.3** Internal argument of V



- (163) a. Te blechoel el [melatk er a klemerang ] a  
 3PL.+HUM= always L [remember.IMPF ACC D truth ] D  
 re-chad.  
 PL-person  
 “The people always remember the truth.”
- b. Te mo [lotk-ii a klemerang ] a re-chad.  
 3PL.+HUM= AUX.FUT [remember.PF-3SGO D truth ] D PL-person  
 “The people will remember the truth.”

Under the syntactic assumptions laid out within the Minimalist framework, transitive verb stems merge with their theme arguments to form a VP, which is represented schematically in Fig. 3.3. If the De Swart’s (1998) hypothesis explored in Sect. 3.4.2 turns out to be correct and languages have situation aspect coercion operators, and if they are located in  $Asp_s$  as Travis (2010) proposes, then the VP would merge with  $Asp_s$  at this point.<sup>17</sup> After that,  $Asp_sP$  would combine with a transitive verbalizer head  $v$  to introduce an external argument and license Accusative Case.

On the other hand, if the (null) aspect coercion operator analysis proposed by De Swart/Travis is incorrect, then I know of no evidence that Palauan has syntactic structure corresponding to an  $Asp_s$  projection. While there are still many areas of Palauan morphology that deserve careful analysis, I have not yet found overt morphology that definitively must occupy the position. One potential example is the reduplicative morphology that creates an iterative reading of a predicate, examples of which are shown in Table 3.4.<sup>18</sup> A full investigation of this reduplication pattern would take us too far afield from the syntax of direct objects and must be left for future research.

<sup>17</sup>In Sect. 3.4.2 I called the features that appear on  $Asp_s$  [ $\pm$ DEFINITE/TELIC]; I am not committed to a particular label for the features that occupy the  $Asp_s$  position, and as their associated morphology is null, any label would be purely theoretical.

<sup>18</sup>Travis’s (2010: 53–62) discussion of Tagalog reduplication is what reminded me of the Palauan reduplication data in Josephs (1997: 375–380.)



**Table 3.4** Palauan iterative reduplication (adapted from Josephs 1997: 376, ex. 24)

Palauan $\sqrt{\text{ROOT}}$	Normal imperfective	Iterative imperfective
$\sqrt{\text{TUB}}$ “spit, saliva”	<i>melub</i> “spit on”	<i>melebtub</i> “keep spitting on”
$\sqrt{\text{DOBS}}$ “negativity”	<i>melobs</i> “object to”	<i>melebdos</i> “keep objecting to”
$\sqrt{\text{DOKO}}$ “blow”	<i>meloko</i> “blow at/on”	<i>melekedoko</i> “keep blowing at/on”
$\sqrt{\text{DANGCH}}$ “identification”	<i>melangch</i> “recognize”	<i>melengdangch</i> “keep looking at (to identify)”
$\sqrt{\text{KAL}}$ “eat”	<i>menga</i> “eat”	<i>mengelka</i> “keep eating”
$\sqrt{\text{BALECH}}$ “slingshot”	<i>omelech</i> “shoot with a slingshot”	<i>omelebalech</i> “keep shooting with a slingshot”

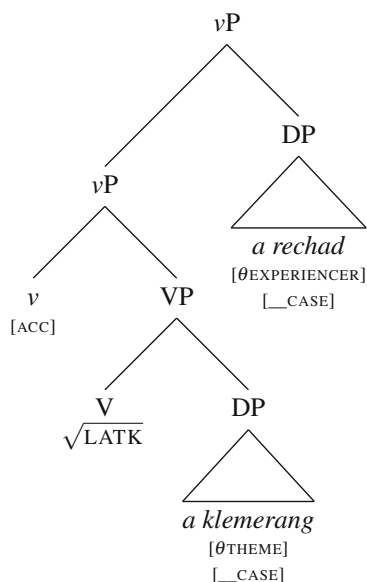
Whatever contribution an  $\text{Asp}_s$  projection might make to the semantics could be equally contributed by features on other lexical or functional heads that do have overt morphology. For example, situation aspect semantics might be contributed by  $V$  itself, in which case VP would simply combine with  $v$  directly.

In the absence of concrete evidence for syntactic  $\text{Asp}_s$  structure and to avoid proposing vacuous structure, I tentatively assume that there is no  $\text{Asp}_s$  in Palauan, and the structure represented in Fig. 3.4 is correct. This should not be construed as a claim that  $\text{Asp}_s\text{P}$  or an inventory of functional  $\text{Asp}_s$  heads has no place in Universal Grammar. In fact, very elegant analyses have been devised for phenomena in other languages that motivate the inclusion of  $\text{AspP}$  in an articulated  $v\text{P}$  structure (e.g., Travis 2005: 80–84 for Malagasy; Travis 2010: 53–62 for Tagalog). If subsequent evidence for a structural  $\text{Asp}_s\text{P}$  projection in Palauan is found in the future, the issue must be revisited.

Returning to the analysis of direct objects, I propose that the primary distinction between transitive and intransitive verbs is encoded syntactically via the selection of an appropriate  $v$  head (cf. Johnson 1991; Kratzer 1996) to merge with VP. For instance, passive, unergative, and unaccusative  $v$  do not have [ACC] features to license Accusative Case via Agree, whereas transitive  $v$  does, as indicated in Fig. 3.4. If transitive  $v$  merges with VP, then the theme DP is grammaticized as a direct object and will be Case-licensed by transitive  $v$ . Furthermore, transitive  $v$  differs from passive and unaccusative  $v$  in requiring that an external argument DP merge with it as well. That is, transitive  $v$  has an extra selectional restriction for a constituent of category D; this is the DP *a rechad* “the people” in Fig. 3.4.

We are left with our familiar viewpoint aspect morphemes, *meN-* (imperfective) and *-m-* (perfective). As they are in complementary distribution with category-defining morphemes that create unaccusative, unergative, and passive verbs, resultative adjectives, deverbal nouns, and so forth, I analyze *meN-* and *-m-* (and their phonologically-conditioned allomorphs) as exponents of transitive  $v$  that are realized in the context of the appropriate viewpoint aspect features, [IMPF] or [PF]. The question now is what it means for  $v$  to “be in the context of a viewpoint aspect

**Fig. 3.4** The event spine  
(with no Asp<sub>s</sub>P layer,  
tentatively)



feature.” To be clear, I propose that viewpoint aspect features like [IMPF] or [PF] are introduced on null Asp<sub>v</sub> heads, which then select a vP with the appropriate head *v*: either *meN-* or *-m-*. This selectional approach could work under lexicalist assumptions of morphology if we assume that either *meN-* or *-m-* can be extracted from the lexicon into the numeration, but the derivation will crash if their vP projections are not selected by the appropriate Asp<sub>v</sub> head. On a post-syntactic theory of morphology like Distributed Morphology, we can simply posit a single abstract transitive *v* head that will later be realized as either *meN-* or *-m-* depending on the aspect features it inherits in the syntax. What I mean is that this transitive *v* head might share the aspect features of Asp<sub>v</sub> through a mechanism like Grimshaw’s Extended Projection Theory (Grimshaw 2005: Chap. 1), an idea that I explore in more detail in in Chap. 5, Sect. 5.6. Regardless of how this transmission of features is formalized, what is crucial for the present discussion is that *v* is somehow “sensitive” to the aspect introduced by Asp<sub>v</sub>. This does not seem far-fetched, given that the morphology associated with *v*—which determines that the predicate requires an external argument and is verbal—alternates depending on whether the aspect is imperfective or perfective.

The structure is presented visually in Fig. 3.5, which represents the phrase structure that I assume for transitive predicates for the rest of this book. What is striking is that—despite the myriad of differences between imperfective and perfective transitive verbs—the two trees in Fig. 3.5 are structurally identical. The difference in meaning between imperfective and perfective verbs was shown to be an effect of viewpoint aspect. Because viewpoint aspect relates an event time to a reference time (per the framework of Demirdache and Uribe-Extebarria 2000, 2004, 2005), and the syntactic XP that denotes the event is vP, viewpoint aspect must be calcu-

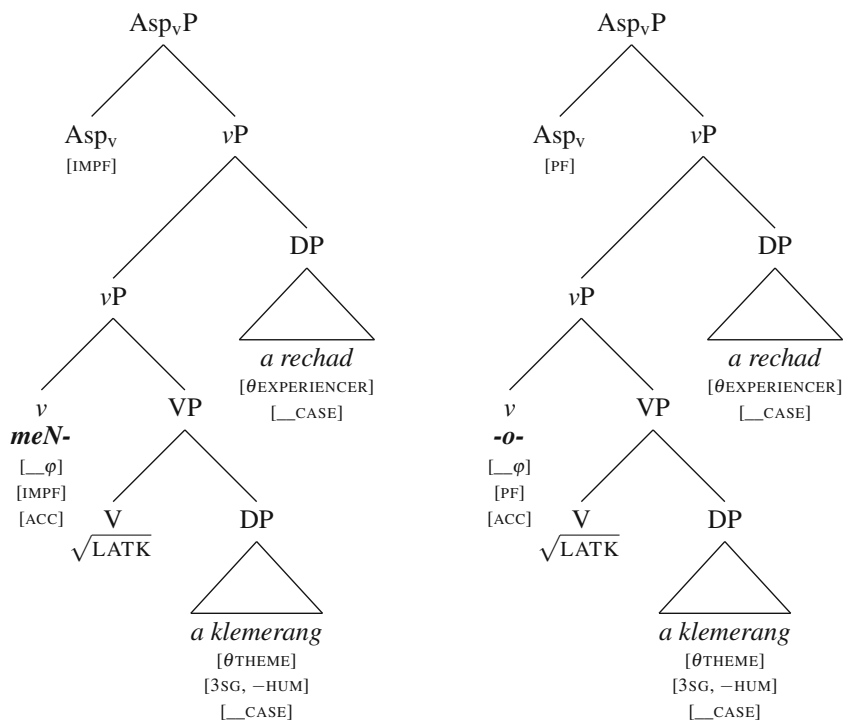


Fig. 3.5 Merge of  $Asp_v$  and  $vP$  (imperfective on the *left*, perfective on the *right*)

lated outside of  $vP$ . As such, imperfective and perfective predicates are in most ways identical with the exception of the potential selection relation imposed by perfective  $Asp_v$ , which seems to select only telic predicates. Furthermore, the differential object marking pattern associated with imperfective verbs was shown in Sect. 3.3 to be purely morphological and does not indicate a difference in structure; all direct objects are DPs, not PPs or KPs.

### 3.5.1 The Role of Agree

In Sect. 3.3, I argued that Accusative is a structural Case which licenses direct object DPs. I turn now to the question of *how* Accusative Case is licensed. Specifically, I propose that direct objects are licensed via an Agree relation similar to the one that licenses Nominative. In both cases, Agree is instantiated by a particular head which is called the *probe* P, whose domain D is its c-command domain (Chomsky 2000: 122). The Agree relation is established with the closest “active” DP (in the Relativized Minimality sense of Rizzi 1990, 2001), which is then identified as the goal G. The uninterpretable (or unvalued) Case feature on G is what renders it active (Chomsky 2000: 127). While I postpone discussion of the details

regarding which features must be shared (and why) until Sect. 3.5.2, I now motivate the proposed Agree relation.

Coordinated DPs provide an interesting testing ground for this theory of Agree. Binding asymmetries such as those in (164) suggest an asymmetric analysis of English coordination. The left conjunct DP is able to bind a pronoun embedded within the right conjunct DP, but the reverse is impossible.

- (164) a.  $[_{DP}$  Every student]<sub>i</sub> and  $[_{DP}$  his<sub>i/j</sub> advisor] attended the charity benefit.  
 b.  $[_{DP}$  His<sub>\*i/j</sub> advisor] and  $[_{DP}$  every student]<sub>i</sub> attended the charity benefit.

If binding is contingent upon c-command, then a symmetric analysis of coordination leaves the asymmetry in (164) mysterious. In part to address concerns of this sort, Munn (1993) and Zoerner (1995) advocate an asymmetric structure for coordination, &P.<sup>19</sup> The coordinator “&” heads a functional projection with one DP in its complement position and another DP either adjoined to &P (as Munn argues) or in the specifier position of &P (as Zoerner argues). In the context of Bare Phrase Structure advanced by Chomsky (2000, 2001), the distinction between specifiers and adjuncts is reduced to the selectional properties of the head of the projection, rendering these two analyses nearly identical.

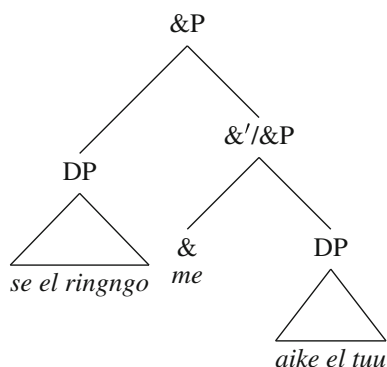
Coordinated DPs in Palauan take the form  $[_{DP}$  *me* DP], where *me* is a conjunction. Finessing the issue of whether the higher DP is in an adjunct or specifier position, I give a schematic representation of &P below in Fig. 3.6. What is immediately relevant is that, assuming the configuration in Fig. 3.6, the left conjunct DP is syntactically more prominent than the right conjunct DP due to the asymmetric c-command relation established between the two DPs. If the asymmetric analysis of DP-coordination is correct for Palauan, then there are at least two possible patterns of agreement that we might expect if Agree is established between a transitive *v* probe and the coordinated DP goal, described in (165) and (166).<sup>20</sup>

- (165) The & head represents a function that—in some way—combines the  $\varphi$ -features of the two DPs, yielding a new set of features that are salient to the Agree relation. E.g., coordination of two [SG] DPs could yield a [PL] &P that is accessible to Agree.
- (166) The & head leaves the  $\varphi$ -features of the DPs intact: only the features of the highest DP are salient to the Agree relation. E.g., coordination of two [SG] DPs would be treated for Agree as if only the higher DP were present.

<sup>19</sup>See Wagner (2005, 2010) for additional prosodic evidence that &P might be asymmetrical, at least in some languages.

<sup>20</sup>See also Corbett (1979, 1983, 1988) for extensive work on resolution rules for coordinate structures in Slavic.

**Fig. 3.6** The Munn/Zoerner view of &P



The situation in (165) would also be compatible with a symmetric analysis of DP-coordination. However, the situation in (166) would be difficult to formalize using a symmetric analysis, but it is certainly compatible with an asymmetric analysis like that proposed in Fig. 3.6.

I will now demonstrate that, in Palauan, when an Agree relation is established between a transitive *v* head and a coordinated DP in direct object position, the coordinated DP triggers the same morphology that the left conjunct DP would trigger if it occurred alone in the same syntactic position (complement of V). This is the case with direct objects of both imperfective and perfective verbs, as (167) and (168) indicate, respectively. Put simply, what (167) and (168) show is that the coordinated direct object is registered morphologically as if the right conjunct were not present at all. The right conjunct can never bear *er*, as shown in (167), and object agreement ignores it, as shown in (168).

- (167) a. Ak *milengang* [**er** *se el ringngo me aike el tuu* ].  
 1SG= PAST.eat.IMPF [ACC that L apple and those L bananas ]  
 “I was eating that apple and those bananas.”
- b. Ak *milengang* [*aike el tuu me (\*er) se el ringngo* ].  
 1SG= PAST.eat.IMPF [those L bananas and (\*ACC) that L apple ]  
 “I was eating those bananas and that apple.”
- (168) a. Ak *mo kol-ii/\*kmang* [*se el ringngo me aike el tuu* ].  
 1SG= AUX.FUT eat.PF-3SGO/\*eat.PF.3PL.–HUMP [that L apple and those L bananas ]  
 “I am going to eat (up) that apple and those bananas.”

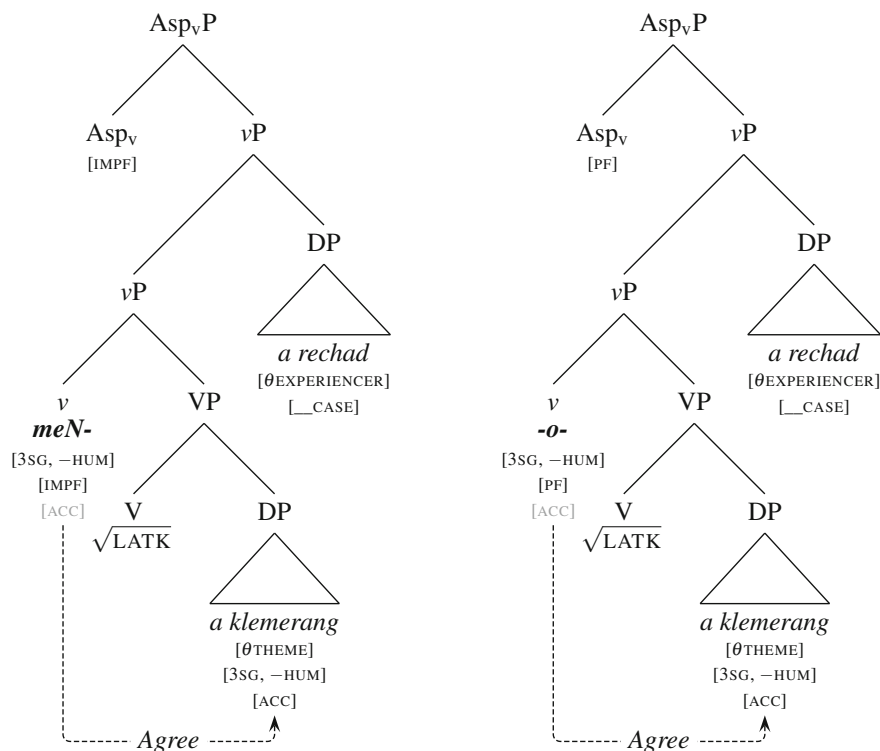
- b. Ak mo **kmang**/\*kol-ii [aike el tuu  
 1SG= AUX.FUT eat.PF.3PL.—HUMP/\*eat.PF-3SGO [those L bananas  
 me se el ringngo ].  
 and that L apple ]  
 “I am going to eat (up) those bananas and that apple.”

The contrast between the obligatory presence of the accusative case marker *er* in (167a) and its obligatory exclusion in (167b) strongly suggests that the feature values of the left conjunct DP are the ones that condition whether *er* will appear. Furthermore, the lack of *er* on the right conjunct DP in (167b) suggests further that it is not true that the feature values of each DP conjunct determine its own morphological case marking. If this were the case, *er* should mark the right conjunct DP in (167b) because it is singular and specific (assuming demonstrative DPs are specific). Furthermore, perfective verb forms agree with the  $\varphi$ -features of the left conjunct DP, not some combination of the  $\varphi$ -features of both DPs. The data in (167) and (168), then, provides some evidence for an asymmetric analysis of DP-coordination in Palauan and an Agree-based system of DP-licensing.

To illustrate how transitive  $v$  probes its c-command domain to enter into an Agree relation with the highest active DP, consider Fig. 3.7 below. In both trees—again, the imperfective variant is on the left while the perfective variant is on the right—the Agree relation established between  $v$  and the internal argument DP *a klemerang* “the truth” enables transmission of the [ACC] feature to the DP, licensing it for Accusative Case. In the same vein, the  $\varphi$ -features of the DP are transmitted to  $v$ : in Fig. 3.7, the features [3SG, –HUM] can be seen on  $v$ . The application of Agree is identical in imperfective and perfective predicates. The only difference is the morphological reflex of the Agree operation, that is, whether the licensing of a direct object is registered morphologically via object agreement on the verb or using a case-marker on the direct object.

Now that the mechanics of the Agree relation and the licensing of the direct object DP for Accusative Case are in place, I would like to turn to the question of the morphology of accusative case marking. In terms of their content and structure, the only difference between the two trees in Fig. 3.7 is the aspect feature in  $Asp_v$ , and the  $v$  that is selected by  $Asp_v$ . If my analysis of the syntax is correct, and if we assume that morphology should be triggered by (or should at least be compatible with) features in the syntax, then the difference between the dependent-marking pattern that characterizes direct objects of imperfective verbs and the head-marking pattern that characterizes direct objects of perfective verbs should fall out from this difference in aspect.

One attractive consequence of analyzing viewpoint aspect as syntactic, introducing features like [IMPF] and [PF] into the syntax on an  $Asp_v$  head, is that it paves the way for a morphosyntactic analysis of the two patterns of accusative case morphology that makes use of standard syntactic mechanisms, like Agree. If syntactic Accusative Case is licensed via Agree, then the fact that the  $v$  that instantiates Agree



**Fig. 3.7** Agree between *v* and DP to license Accusative Case (imperfective on the *left*, perfective on the *right*)

might have different aspect features depending on its environment might provide some rationale for the fact that direct objects of imperfective verbs are marked with the accusative case marker *er*, while direct objects of perfective verbs trigger object agreement morphology on the verb.

One final note is in order. On the analysis that I have proposed in this section, there is no notion of an “imperfective morpheme” independent from the “verb marker” (cf. Wilson 1972a, b; Josephs 1975). The so-called imperfective morpheme is treated as part of the imperfective verbalizer morpheme *meN-*, in accordance with the analyses of Capell (1949) and DeWolf (1988). From a comparative or historical standpoint, this analysis is probably more accurate when one considers the types of prefixes and infixes that form verbs in other Philippine languages. In Indonesian, like in Palauan, *meN-* can form either intransitive or transitive verbs (Sneddon 1996). In Chamorro, *man-* indicates that the subject of a non-stative/inchoative is plural, whereas *-um-* (cf. the perfective infix *-m-* in Palauan) is used if the subject is singular/dual (Topping 1973: 84, 226; Sandy Chung, p.c.). In Tagalog, both *maN-* and

*-um-* can form transitive and intransitive actor focus verbs (Schachter and Otnes 1972: 290, 292–293). An aspectual alternation similar to that in Palauan can also be found in Malagasy when different voice affixes are used to form verbs (Pearson 2001: 55–66; Pearson 2012; Ileana Paul, p.c.). If the present analysis is correct, then the verbal prefix/infix system of Palauan is poised to more closely resemble those of its linguistic neighbors.

### 3.5.2 *Spelling Out the Morphology*

This section rounds out the analysis with a simple set of Spell Out rules which condition the differential object marking pattern that characterizes the alternation between *er* and  $\emptyset$  marking direct objects of imperfective verbs, as well as the object agreement patterns associated with perfective verbs. With these rules, all morphological reflexes of Case licensing are registered post-syntactically at PF (cf. especially McFadden 2004: Chap. 2, which imports many of Schütze’s (1997) insights into the Distributed Morphology framework; Embick 1997; Legate 2008).

My primary goal is to construct an account of the divergent morphological realizations of direct objects of imperfective verbs on one hand, and perfective verbs on the other. It was argued that transitive verbs uniformly subcategorize for DPs that are licensed by two aspectual “flavors” of transitive *v*, imperfective and perfective. In Sect. 3.3, recall that the differential object marker *er* was analyzed simply as a case marker, and not a P or K that marks inherent Case, as it marks even derived objects in raising-to-object constructions and causatives. The question of how to specify that *er* marks only a particular subset of direct objects is reminiscent of the facts surrounding the infamous “personal *a*” in Spanish. In Spanish, human direct objects that are specific are typically marked for accusative case with *a*, which is homophonous with the preposition *a*. Compare the following sentences in (169).

(169) SPANISH:

a. En el mercado vi           \*(a) los vecinos.  
at the market saw.1SG \*(ACC) the neighbors  
“At the market (I) saw the neighbors.”

b. En el escritorio vi        \*(a) los papeles.  
on the desk saw.1SG (\*ACC) the papers  
“On the desk (I) saw the papers.”

[Zagana 2002: 13, ex. 15]

The morpheme *a* is also used to mark indirect objects, as in (170) below. Its presence does not depend on the animacy of the indirect object, as it does when it marks accusative direct objects, as (170b) shows.



(170) SPANISH:

- a. Le            mandé    un paquete **a José**.  
 CLITIC.DAT sent.1SG a    package to José  
 “I sent a package to José.”
- b. Le            mandé    el formulario **al    departamento**.  
 CLITIC.DAT sent.1SG the form        to.the department  
 “I sent the form to the department.” [cf. Zagona 2002: 14]

Demonte (1987) argues for a distinction between DPs that are marked with personal *a* and those that should be analyzed as the objects of a preposition *a*. Only the former can control secondary predication in Spanish.

(171) SPANISH:

- a. Juan la            encontró    a    Maria borracha.  
 Juan CLITIC.ACC found.3SG ACC Maria drunk  
 “Juan found Maria drunk.” [Demonte 1987: 148, ex. 1]
- b. \*Juan le            habló        a    Maria borracha.  
 Juan CLITIC.DAT spoke.3SG to Maria drunk  
 “Juan spoke to Maria drunk.” [Demonte 1987: 148, ex. 2]

McFadden (2004: 74) takes the contrast in (171) as evidence that the *a* in sentences like (171a) is simply a case marker inserted on the direct object DP in the morphology after Spell Out, while the *a* in sentences like (171b) is the morphophonological exponent of a syntactically realized P morpheme in the syntax. Such an analysis accounts for the uniform presence of *a* on both human and non-human indirect objects as in (170), while leaving room for an analysis of its variability in marking only human direct objects as in (169). This leads McFadden to propose the following hypothesis in (172).

(172) MCFADDEN’S HYPOTHESIS: Morphological case is determined after Spell Out on the PF branch and thus is not present in the narrow syntax or on the LF branch. [McFadden 2004: 39]

The analysis I propose is in line with McFadden’s hypothesis regarding the position of morphological case in the grammar. It is possible to assume a uniform syntax for transitive *v*Ps, corresponding essentially to the *v*Ps in Fig. 3.7. As the variation in case marking on direct object DPs is purely morphological on this analysis, there is no need to invoke syntactic stipulations to explain the discrepancy between the case morphology on direct objects of imperfective verbs and the corresponding direct objects of perfective verbs, if (172) is correct.

Instead, I propose a short series of Palauan-specific Spell Out rules that govern the morphological forms of verbs and their associated direct objects. In formulating these Spell Out rules, I have made the relatively uncontroversial assumption that the Agree relation between a direct object DP and  $v$  enables sharing of features in both directions (see Chomsky 2000). The functional head  $v$  gets its unvalued [ $_{\varphi}$ ] features specified, copying the values of the  $\varphi$ -features on the DP it licenses via Agree. Furthermore, the DP's uninterpretable Case feature [ $_{CASE}$ ] is valued with [ACC].

Up to this point, the interpretable Case features on functional heads—i.e., the features that license DPs for syntactic Case—have been given intuitive labels like [NOM] (on finite T) and [ACC] (on transitive  $v$ ). These should be construed as strictly mnemonic: what is important is that the DP that is licensed by a functional head inherits some sort of feature values from this functional head (via Agree) such that the morphology has a way to know which functional head has licensed the DP. In this context, I think it is worth exploiting the fact that different DPs with the same syntactic Case may surface with different morphological cases, as McFadden (2004) points out.

For direct objects of transitive verbs in Palauan, it might be useful to conflate the features [ACC] and [(IM)PF]. It is just by virtue of the fact that both imperfective  $v$  and perfective  $v$  introduce external arguments that they may also license syntactic Case on a lower DP (see Kratzer 1996, following Perlmutter 1978; Burzio 1986). The actual features that are shared between the licensing head and the DP that is licensed are immaterial as far as the narrow syntax is concerned. If one construes uninterpretable features as simple indicators of which feature values a syntactic head (or its projection) must copy via Agree, then it makes no difference whether a direct object DP's Case feature [ $_{CASE}$ ] is specified as [ACC] or, e.g., with a feature like [IMPF] or [PF].

For instance, McFadden adopts the features [+T] and [+ $v$ ] to replace [NOM] and [ACC], respectively, to drive home the point that a DP's being licensed with syntactic Nominative/Accusative Case does not entail that it will be marked with the language's morphological nominative/accusative case at PF. This is the idea that I aim to push one step further: if a DP can inherit some feature from transitive  $v$  to check its [ $_{CASE}$ ], there is no reason that this feature needs to be a placeholder case feature like [NOM]/[ACC] or a category feature like [+T]/[+ $v$ ]; it may just as well be an aspectual feature like [IMPF] or [PF]. As McFadden (2004: Chap. 2) emphasizes, syntactic Case is just DP-licensing. As long as the direct object DP does not end up with an unvalued [ $_{CASE}$ ] feature at Spell Out when it is sent to LF and PF, the derivation can still converge successfully.

This scenario leaves us well-positioned to explain the actual morphology underlying the transitive perfective/imperfective alternation. The two sets of Spell Out rules required to capture the morphology of transitive verbs in Palauan are given in (173) and (174). (173) gives the set of Spell Out rules necessary for the appropriate morphological realization of morphological case on direct object DPs, while (174) gives the set of Spell Out rules for agreement on verbs, i.e., the roots that occupy

V.<sup>21</sup> The label of the syntactic node above the root is irrelevant for present purposes. All that matters is that this is the node that will be spelled out as the verb stem.

(173) SPELL OUT RULES FOR THE ACCUSATIVE CASE MARKER

- a.  $\emptyset \rightarrow er / \text{ \_\_\_ } DP_{[IMPF, +HUM]}$
- b.  $\emptyset \rightarrow er / \text{ \_\_\_ } DP_{[IMPF, SG, +SPEC]}$

(174) SPELL OUT RULES FOR OBJECT AGREEMENT ON THE V(ERB)

- a.  $\emptyset \rightarrow -ak / V_{[PF, 1SG]} \text{ \_\_\_ }$
- b.  $\emptyset \rightarrow -au / V_{[PF, 2SG]} \text{ \_\_\_ }$
- c.  $\emptyset \rightarrow -ii / V_{[PF, 3SG]} \text{ \_\_\_ }$
- d.  $\emptyset \rightarrow -id / V_{[PF, 1PL, INCL]} \text{ \_\_\_ }$
- e.  $\emptyset \rightarrow -emam / V_{[PF, 1PL, EXCL]} \text{ \_\_\_ }$
- f.  $\emptyset \rightarrow -emiu / V_{[PF, 2PL]} \text{ \_\_\_ }$
- g.  $\emptyset \rightarrow -terir / V_{[PF, 3PL, +HUM]} \text{ \_\_\_ }$

Three points are worth mentioning.

First, the issue of how V has access to the aspect features introduced by *v* has been finessed. While it is possible that V moves to *v*, I know of no empirical evidence for such movement. It's true that perfective verbalizer morphology is infixated into the verb stem and that the imperfective verbalizer triggers nasal substitution in the stem, but it is nevertheless possible that such infixation and nasal substitution can happen in the morphology/phonology component of PF, after (or during) linearization.

Second, the Spell Out rules in (173) and (174) do not comprise an exhaustive list describing the morphological realization of every DP or verb (with any combination of feature values) sent to PF. One attractive aspect of the morphological analysis given above is that it only requires morphological rules to insert case markers or agreement suffixes if they are actually instantiated morphologically. In other words, there is neither a need for nodes in the syntax (Distributed Morphology's "morphemes") nor for rules in the morphology to explain when DPs do *not* get case marking (the set of [-HUM, PL] and [-HUM, -SPEC] DPs) or do *not* trigger agreement (just the set of [-HUM, PL] DPs). Subject DPs, adverbial DPs, indirect object DPs, etc. do not need separate morphological rules to characterize their morphological shape, as they do not alternate between *er*-marked forms and  $\emptyset$ -marked forms. If they are marked by *er*, then this *er* can be analyzed as the morphological exponent of a syntactic P head rather than as a piece of dissociated case morphology inserted by one of the rules in (173).

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<sup>21</sup>V could also easily be called  $\sqrt{\text{ROOT}}$  if one adopts the category-neutral root theory of Marantz (1997) et seq.

Finally, a welcome consequence of the post-syntactic analysis of DP case morphology in (173) is that it ties in seamlessly with the theory of Palauan A' extraction advanced by Georgopoulos (1991; see also Georgopoulos 1985). She argues that there are no true A' gaps in Palauan, and that apparent gaps are instead better analyzed as resumptive pronouns. What is important is that there is no A' movement, so A' dependencies that target direct object DPs will leave pronouns in the base position. If Georgopoulos's analysis is correct (and I know of no empirical evidence against it), then the analysis that I advance in (173) does not need to be modified to account for the morphological shape of A' resumptive pronouns bound in a direct object position. Object agreement and insertion of *er* proceed as normal, according to the Spell Out rules in (173) and (174).

### 3.6 Interim Conclusions about Direct Objects

To summarize, this chapter investigated the syntax of direct objects of transitive verbs. It was shown that transitive verbs exhibit not only a morphological distinction between imperfective and perfective verbs (located in their respective verbalizer morphologies), but also a distinction in the way their respective direct object DPs are realized morphologically. The accusative case marker that appears on direct objects of imperfective verbs, *er*, was then shown to exhibit properties distinct from its usage as a preposition. Prepositional *er* was shown to introduce a sub-class of possessor DPs, certain indirect object DPs in periphrastic constructions, and locative adverbial DPs. Accusative *er* was analyzed as a differential object marker similar to Spanish's "personal *a*" and differential object markers in many other languages (see Aissen 2003; de Swart 2007; and Rodríguez-Mondoñedo 2007 for numerous examples). On this basis, I argued that the most satisfying account of the distribution of accusative *er* is morphological rather than syntactic, revealing the challenges that a purely syntactic account of its distribution must reconcile.

To lay the groundwork for this analysis of differential object marking—and direct object licensing in general—I explored the properties of imperfective and perfective verbs. Evidence was presented from morpheme ordering with respect to causative morphology, the appearance of both aspects on stative predicates, and aspectual class ambiguity in passives that the relevant type of aspect that the imperfective and perfective morphemes register is viewpoint aspect, not situation aspect. A unified Minimalist analysis of the syntax of imperfective and perfective transitive verbs was then proposed, in which structural Case is uniformly licensed by transitive *v* heads.

Finally, a simple post-syntactic analysis based on Spell Out rules was articulated, allowing the morphological idiosyncracies associated with *er* and its aspect-governed complementary distribution with object agreement morphology to be handled in the morphological component of the grammar, rather than in the syntactic component alone. In this way, the syntactic analysis of imperfective and perfective

transitive verbs in Palauan was rendered truly Minimalist: syntactic Accusative Case is always licensed by a transitive *v* head, and direct objects are always just DPs.

Despite the lack of strong empirical evidence for certain components of the analysis (particularly with respect to the proper treatment of aspect in the narrow syntax), the careful balance between the amount and distribution of featural information introduced in the verbal complex and its reflexes in the morphology leaves it possible to explain the various properties of direct object DPs in, I think, a very satisfying way. If the analysis is correct, then the featural information contained in a morphophonological verb (i.e., a predicate) may be distributed over more than one syntactic terminal node (e.g., *V* and *v*) that combine later in the morphology/phonology. This idea paves the way for much deeper investigation into how predicates are built.

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## Chapter 4

# Idioms and Lexical Insertion

The groundwork for a theory of Palauan clause structure has now been established. Clauses are analyzed as TPs whose T heads select XP predicates as their complements. The specifier of TP must contain a DP subject. The direct objects of transitive *v*Ps—despite their idiosyncratic case morphology—have syntactic properties familiar from other languages in terms of their distribution and Case licensing. The data is compatible with an analysis of argument licensing built using the Minimalist syntactic framework (Chomsky 2000, 2001, 2004, 2008), where finite T is the locus of structural Nominative Case licensing and subject agreement, and transitive *v* is the locus of structural Accusative Case licensing and object agreement. We have seen that subject agreement identifies the DP that occupies the specifier of TP and object agreement identifies the direct object of a (perfective) transitive predicate. Both must be the most prominent DP in the domain of their probes, in the sense of Rizzi (1990, 2001). The differential object marker *er* also identifies direct objects of (imperfective) transitive verbs. Such morphological indicators that particular DPs bear some grammatical relation can be treated as diagnostics for argument structure, and they figure prominently in the analyses of various predicate types and syntactic constructions examined in the second half of this book. The focus of this chapter is on the internal structure of the XP predicate selected by T, i.e., the minimal phrase that contains the predicate itself, its arguments, and its modifiers before functional information about (viewpoint) aspect, tense, and mood is introduced.

I examine the properties of a particular class of predicates in Palauan that has been noted in the descriptive literature but whose syntax has not yet been analyzed. This class of predicates consists of phrasal idioms formed from predicates that take a DP argument referring to an inalienably possessed body part. Usually, but certainly not exclusively, the body part is *reng* “heart.” Examples are given below in (175).<sup>1</sup>

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<sup>1</sup>Recall that in Chap. 1, Sect. 1.2.2.2 I assume that the linker is inserted post-syntactically and does not appear in narrow syntactic structure. For this reason, when I bracket constituents that trigger the linker, I include the linker within the brackets to indicate that if it were not for that constituent, the linker would be absent. This convention is intended to improve readability, and should not be construed as a commitment on my part that the linker necessarily forms a (narrow) syntactic constituent with the material that triggers it.

- (175) a. Ng [klou a ched-engal \_\_\_\_ el ] chad *pro*.  
 3SG= [big D liver-3SGP <GAP> L ] man he  
 “He’s a brave man.” (lit. “He’s a man whose liver is big.”)  
 [Josephs 1990: 34]
- b. ...ng milekoi a debar [el kmal mereched a nger-el  
 ...3SG= PAST.speak D duck [L very fast D mouth-3SGP  
 \_\_\_\_ ]  
 <GAP> ]  
 “...said the duck, who was quite a gossip.” (lit. “...said the duck, whose  
 mouth was very fast.”)  
 [CB 22]
- c. A le-mechell a ngalek e [ng ralmetaoch a reng-ul  
 D 3S.IRR-be.born D child then [3SG= river/channel D heart-3SGP  
*pro* ].  
 he ]  
 “When a child is born (in this month), he has a carefree attitude.”  
 (approx. “When a child is born, his heart is a channel, i.e., unobstructed.”)  
 [RE 61]
- d. L-ak bechi-titerir a re-mekngit el chad me  
 3S.IMP-NEG let.PF-3PL.+HUMO D PL-evil L people so.that  
**i-o-sebek-ii** [a reng-um *pro* ] *pro*.  
 3S.IRR-CAU-fly.PF-3SGO [D heart-2SGP you ] they  
 “Don’t let evil people worry you.” (approx. “Don’t let the evil people  
 make your heart fly.”)  
 [Chedaol Biblia, Proverbs 24:19]

This type of idiomatic predicate is common to the languages of Southeast Asia and has been investigated in other languages both closely related to Palauan (e.g., Malay, see Oey 1990) and completely unrelated to Palauan (e.g., Vietnamese, see Nguyễn Đăng Liêm 1970). The literature describing similar classes of predicates in other languages refers to them with various names, including *psycho-collocations* or *ψ-collocations* (Matisoff 1986), *stative-verb-body-part constructions* (Clark 1996: 535), *proprioceptive-state expressions* (Iwasaki 2002), and *zoom-on-possessee constructions* (Gerner 2005). The construction is superficially reminiscent of English metaphorical expressions like *have a big head* (i.e., be conceited), *have a big mouth* (i.e., be a gossip), and *have a big heart* (i.e., be compassionate).

As the relevant class of predicates in Palauan is not restricted to psychological or stative predicates, and it is not the case that the possessor is necessarily “salient” in any way that can be formalized<sup>2</sup> easily or explicitly, I adhere to Matisoff’s (1986: 9) second convention and call this class of predicates in Palauan *ψ-expressions*, using

<sup>2</sup>cf. Kam (Dong), a Kadai language spoken in China, in which the possessor occupies a preverbal position, separated from the postverbal possessee; see Gerner (2005).

the  $\psi$ -prefix also to describe subtypes of  $\psi$ -expressions and component parts of  $\psi$ -expressions. This terminology is intended to highlight the similarities between the Palauan construction and similar psychological predicate constructions in other languages spoken throughout Southeast Asia, while remaining unbiased about the Palauan construction's potential syntactic, semantic, and aspectual properties. In other words, the terms  $\psi$ -expression,  $\psi$ -idiom,  $\psi$ -predicate, and  $\psi$ -argument are intended to be pre-theoretical.

My theoretical goal is to show how an understanding of Palauan  $\psi$ -expressions can in turn inform us about the relations between Palauan morphology and syntax, as well as how words and predicates are built in general. Specifically, I consider two competing theories of the syntax–morphology interface, roughly corresponding to a lexicalist theory of morphology (e.g., Aronoff 1976) and a syntactic approach to morphology (e.g., Distributed Morphology; see Halle 1990; Halle and Marantz 1993, 1994). I show that while both types of theory are in principle capable of describing the properties of Palauan  $\psi$ -expressions, the syntactic approach predicts certain kinds of morphosyntactic variation that we observe in the class of  $\psi$ -expressions by constraining the locality of the  $\psi$ -idiom chunks at the correct point in the derivation, while the lexicalist approach has to make stipulations about idiom locality that are somewhat arbitrary. As a consequence, I argue for a theory of syntactic word formation in which lexical “words” enter the syntax as category-neutral lexical roots (Marantz 1997, 2001, 2007; Arad 2003, 2005; Borer 2005a, b; Embick and Noyer 2007; Embick and Marantz 2008: 6; Embick 2010: 13), some of which may select arguments before they are given their category by a category-defining head, such as *v*, *a*, or *n*. The result is a theory of predicate-argument structure that complements the theory of clause structure developed in Chaps. 2 and 3. The discussion proceeds as follows.

Section 4.1 introduces the class of Palauan  $\psi$ -expressions and identifies some parameters with which we can isolate the relevant subclasses to investigate. Section 4.1.1 introduces the class of *idiomatic*  $\psi$ -expressions and develops three different possible accounts of the locality restriction on the subparts of  $\psi$ -idioms, a structural account in (185), a selection-based account in (186), and a string adjacency-based (post-syntactic) account in (187). As the data in the upcoming sections suggests a potentially tantalizing analysis based on incorporation, Sect. 4.1.2 shows that an analysis of that variety fails to explain the patterns of object agreement and accusative case morphology in transitive  $\psi$ -idioms.

Section 4.2 serves as the descriptive basis of the chapter, in which the syntax of  $\psi$ -expressions is investigated, probing the limits of the three locality restrictions on the subparts of  $\psi$ -idioms. Section 4.2.1 demonstrates that  $\psi$ -arguments of idiomatic  $\psi$ -predicates cannot participate in A' dependencies without sacrificing the predicate's idiomatic interpretation. Next, Sect. 4.2.2 shows that while A-movement of the  $\psi$ -argument is licit in principle, the idiomatic interpretation of the  $\psi$ -predicate disappears if A-movement disrupts the linear adjacency relation between the  $\psi$ -predicate and  $\psi$ -argument. Section 4.2.3 highlights the distribution and availability of idiomatic interpretations when  $\psi$ -arguments are coordinated. Overall, Sect. 4.2 demonstrates that the structural account of the locality restriction proposed in (185)

and the selection-based restriction in (186) are incompatible with the data, suggesting that there might be some merit to the post-syntactic account of locality in (187).

Section 4.3 explores the implications of adopting the post-syntactic analysis of the locality restriction on  $\psi$ -idiom chunks. Section 4.3.1 shows that many  $\psi$ -idioms have synonymous transitive and intransitive variants, which is predicted on an analysis in which the idiomatic elements are simply roots that can merge either with transitive or intransitive verbalizers (i.e., instances of  $\nu$ ), as was suggested in Chap. 3 and is explored in more depth in Chap. 5. Next, we move into the domain of nominalizations in Sect. 4.3.2, showing that verbal/adjectival  $\psi$ -idioms can form nominal  $\psi$ -idioms with two different structures. In the first structure, the root that would have formed the  $\psi$ -predicate is nominalized, and the  $\psi$ -argument DP serves as a possessor rather than as a subject or direct object. In the second structure, the root that would have been the head of the  $\psi$ -argument DP instead forms a compound nominal with the root that would have been the head of the  $\psi$ -predicate, and there is no predicate-argument structure internal to the resulting DP. It is also shown that idiomatic  $\psi$ -idioms can be formed by root nouns, suggesting that a root-based analysis of  $\psi$ -idioms is the correct approach.

Finally, Sect. 4.4 concludes that a theory of morphology that assumes late insertion of lexical material and category-neutral roots makes systematic predictions that are borne out in the Palauan idiom data which would require heavy stipulation on a lexicalist view of morphology, in which lexical items enter the syntax fully formed. The theoretical conclusion is that Palauan  $\psi$ -idioms are listed in a post-syntactic Encyclopedia as  $\sqrt{\text{ROOT}}-\sqrt{\text{ROOT}}$  sequences, and that the relevant encyclopedic knowledge is accessed or activated whenever the relevant  $\sqrt{\text{ROOT}}-\sqrt{\text{ROOT}}$  sequences appear in a linearized string of morphemes.

## 4.1 A Typology of Palauan $\psi$ -Expressions

In contrast to what has been reported for  $\psi$ -expressions in some other languages in Southeast Asia (e.g., Malay; see Oey 1990: 144), use of Palauan  $\psi$ -expressions is quite widespread and employed in essentially all registers of speech and writing. In what I dare say is the majority of cases, the use of a  $\psi$ -expression is the only mechanism available to express a particular concept, and in many of the remaining cases where a mono-lexemic alternative is available, the  $\psi$ -expression often seems to be preferred. The class of Palauan  $\psi$ -expressions is quite large and relatively heterogeneous, but there are several different parameters that we can use to classify them. To make the following discussion more precise, I assume that a  $\psi$ -expression like *ngmasech a rengul* ‘be/get angry’ (lit. ‘(one)’s heart climbs’) has three parts: the  $\psi$ -predicate (e.g., *ngmasech* ‘climb’), the  $\psi$ -argument (e.g., *a rengul* ‘(one)’s heart’), and the *possessor of the  $\psi$ -argument* (e.g., a full DP or null pronominal D that triggers the possessor agreement morphology on the  $\psi$ -argument). One possible set of parameters according to which  $\psi$ -expressions could be characterized is given in (176).

**Table 4.1** Forms of *reng* inflected for possessor agreement

		Singular	Plural	
			Inclusive	Exclusive
1st person		<i>renguk</i>	<i>rengud</i>	<i>rengmam</i>
2nd person		<i>rengum</i>	<i>rengmiu</i>	
3rd person	[+HUM]	<i>rengul</i>	<i>rengrir</i>	
	[-HUM]	<i>rengul</i>	<i>rengul</i>	

- (176) a.  $\Psi$ -PREDICATE CATEGORY: Whether the syntactic category of the  $\psi$ -predicate is adjectival, verbal, or nominal.
- b.  $\Psi$ -ARGUMENT HEAD: Which body part noun is selected as the head of the  $\psi$ -argument, e.g., *reng* “heart,” *bedul* “head,” *chad* “liver,” *ngor* “mouth,” *mad* “eyes/face,” *chim* “hands/arms,” etc.
- c. ARGUMENT STRUCTURE: Whether the  $\psi$ -argument is an obligatory or optional argument (there is a correlation with idiomaticity here).
- d. INTERPRETATION: Whether the  $\psi$ -expression involves a metaphorical relationship or a literal relationship between the  $\psi$ -predicate and the  $\psi$ -argument, i.e., whether the  $\psi$ -expression is a phrasal idiom.

The sentences in (175) above highlight the possible range of categories that the  $\psi$ -predicate can have and illustrate a selection of different types of  $\psi$ -arguments. In (175a–b), the  $\psi$ -predicates are adjectives: *klou* “large” and *mereched* “fast.” In (175c), the  $\psi$ -predicate is a noun *ralmetaoch* “river that functions as a channel.” And in (175d), the  $\psi$ -predicate is a causativized verb *olsebek* “make fly (i.e., throw).” (175) also illustrates a handful of different types of  $\psi$ -arguments, including *chad* “liver,” *ngor* “mouth,” and *reng* “heart,” which is by far the most commonly used noun used in a  $\psi$ -argument. In fact, Josephs (1990: 289–291) provides an extensive list of over 150  $\psi$ -expressions that include *reng* “heart” as the head N of their  $\psi$ -argument DPs. The majority of the  $\psi$ -expressions cited in this chapter contain *reng*, whose forms inflected for possessor agreement are listed in Table 4.1.<sup>3</sup>

To give an impression of the range of concepts that are codified using idiomatic  $\psi$ -expressions, or  $\psi$ -idioms, a selection taken from Josephs’s (1990) *New Palauan-English Dictionary* is presented in Table 4.2 below.<sup>4</sup>

<sup>3</sup>The word *te* “manner” (borrowed from the Japanese *te* “hand”) may also function as a  $\psi$ -argument, albeit rarely. See Table 4.2 for some examples, and see McVeigh (1996: 33ff.) for some discussion of similar predicates in Japanese.

<sup>4</sup>Smith and Tkel-Sbal (1995: 90) provide additional examples, some of which are not listed in Josephs’s (1990) dictionary.

**Table 4.2** A selection of idiomatic  $\psi$ -expressions

Idiomatic $\Psi$ -expression	Meaning	Literal meaning of $\psi$ -predicate
<i>beot a rengul</i>	easygoing; lazy; chill	(heart) easy
<i>blosech a rengul</i>	suspicious	(heart) broken open
<i>diak a rengul</i>	inconsiderate; careless	not have (heart)
<i>dmolech a rengul</i>	wise; prudent	(heart) deep
<i>kedidai a rengul</i>	stubborn; arrogant	(heart) high
<i>kemanget a chimal</i>	generous	(arms) long
<i>klou a chedengal</i>	brave	(liver) big
<i>klou a rengul</i>	patient; confident	(heart) big
<i>mechas a rengul</i>	astonished; surprised	(heart) charred
<i>mechitechut a rengul</i>	discouraged	(heart) weak
<i>medengalii a rengul</i>	self-confident; self-assured	know (one's heart)
<i>mekngit a medal</i>	distressed	(face) bad
<i>mekngit a rengul</i>	sad; mean	(heart) bad
<i>melai er a rengul</i>	persuade	obtain (sb.'s heart)
<i>melaok a ngerel</i>	eloquent	(mouth) slick
<i>melaok a rengul</i>	adulterous; acquisitive	(heart) slick
<i>melecherecher er a rengul</i>	be stubborn	harden (one's heart)
<i>mellomes a rengul/bdelul</i>	smart; intelligent	(heart/head) light
<i>mengurs er a rengul</i>	attract	pull or drag (sb.'s heart)
<i>meoud a te</i>	dimwitted	(manner) slow
<i>mereched a ngerel</i>	gossipy	(mouth) quick
<i>mereched a te</i>	clever; shrewd	(manner) quick
<i>milkolik a rengul</i>	stupid	(heart) dark
<i>mimomkl a rengul</i>	broad-minded	(heart) loose
<i>moalech a rengul</i>	disappointed	(heart) wither
<i>ngar er a bab a rengul</i>	conceited	(heart) be on top
<i>ngar er a eou a rengul</i>	humble; respectful	(heart) be on bottom
<i>ngmasech a rengul</i>	angry	(heart) climb
<i>oba a rengul</i>	independent	hold/carry (one's heart)
<i>olsarech er a rengul</i>	hold in one's emotions	press down (one's heart)
<i>seitak a rengul</i>	having very high standards	(heart) luxurious
<i>suebek a rengul</i>	worried	(heart) fly
<i>ta a rengrir</i>	agree	(hearts) are one
<i>teloadel a rengul</i>	indecisive	(heart) split
<i>titmekl a rengul</i>	timid	(heart) shrunken
<i>ungil a rengul</i>	glad; kind	(heart) good

The  $\psi$ -argument is optional only in a relative minority of  $\psi$ -expressions whose  $\psi$ -predicates describe personality traits or mental states that have no independent meaning outside of the  $\psi$ -expression. In a sense, then, the optionality of the  $\psi$ -argument seems to depend on whether the argument induces a metaphoric extension of the  $\psi$ -predicate. To illustrate the distinction, compare (177) with (178) below. In (177a), the  $\psi$ -argument *a rengrir* “their hearts” must be present to get the idiomatic meaning of the  $\psi$ -expression *kesib a rengul* “be angry.” If there is no  $\psi$ -argument following the  $\psi$ -predicate, as in (177b), only the literal interpretation “sweat” is possible. By contrast, the  $\psi$ -argument in the  $\psi$ -expression *ngemokel (a rengul)* “be greedy” in (178) is optional. The  $\psi$ -predicate *ngemokel* already has the meaning “greedy” without the  $\psi$ -argument; there is no metaphoric extension of the meaning of the predicate to accommodate the  $\psi$ -argument.

- (177) a. Ng            **kesib a reng-rir**            e le        a re-me-klou el  
 3PL.–HUM= sweat D heart-3PL.+HUMP because D PL-PL-big L  
 chad a di melekoi.  
 people TOP just speak  
 “They are angry because the adults are all talk (and no action).” (lit.  
 “Their hearts are sweating because...”) [Tia Belau, 6 April 2009]
- b. Ke mo        **kesib** e mo        meringel el oureor el omek-dubech  
 2SG= AUX.FUT sweat and AUX.FUT hard L work L CAU-grow  
 a dellomel.  
 D plants  
 “You will (have to) sweat and work hard to make the plants grow.”  
 [Chedaol Biblia, Genesis 3:19]
- (178) a. Ng        **ngemokel a reng-ul**.  
 3SG= greedy D heart-3SGP  
 “He is greedy.” [Chedaol Biblia, 1 Corinthians 5:11]
- b. Te            ko er a **ngemokel** el bilis el diak le-turk        a  
 3PL.+HUM= like P D greedy L dogs L NEG 3S.IRR-satiated D  
 nglemekel-el.  
 desire-3PL.–HUMP  
 “They are like greedy dogs that never get enough.”  
 [Chedaol Biblia, Isaiah 56:11]

For now, I will not be concerned with predicates selecting optional  $\psi$ -arguments like *ngemokel (a rengul)* “be greedy” in (178) and instead focus solely on those like *kesib a rengul* “be angry” in (177), whose  $\psi$ -arguments are obligatory and create phrasal, idiomatic  $\psi$ -expressions with their selecting  $\psi$ -predicates. I call the idiomatic  $\psi$ -expressions of the type in (177a)  $\psi$ -idioms to differentiate them from non-idiomatic  $\psi$ -expressions, like that in (178a).

### 4.1.1 $\Psi$ -Idioms: The Context

It is well-known that so-called English VP-idioms like *kick the bucket* and *pull strings* differ as to whether DPs contained within them can be passivized, relativized, modified, pronominalized, and so forth (i.a., Chafe 1968; Fraser 1970; Swinney and Cutler 1979; Chomsky 1981; Koopman and Sportiche 1991; Nunberg et al. 1994; O’Grady 1998; Richards 2001; Harley 2002; McGinnis 2002; Everaert 2010; Bruening 2010). For instance, note the contrasts in (179) and (180).

- (179) a. He **pulled** some **strings**. VP PHRASAL IDIOM  
 b. **Strings** were **pulled**. PASSIVE  
 c. He **pulled** some convenient **strings**. ARGUMENT MODIFICATION  
 d. “Amazes me how the old **strings** still **pull**.” MIDDLE  
 [E. Annie Proulx, *The Shipping News*, p. 31]  
 e. [**strings** [that he hasn’t **pulled** yet]] ARGUMENT RELATIVE  
 f. Pull strings? Well, he hasn’t **pulled them** yet. PRONOMINALIZATION  
 g. **How many strings** did he have to **pull**? *wh*-MOVEMENT
- (180) a. He **kicked the bucket**. VP PHRASAL IDIOM  
 b. \***The bucket** was **kicked**. PASSIVE  
 c. \*He **kicked the horrible bucket**. ARGUMENT MODIFICATION  
 d. \***[the bucket** [that he hasn’t **kicked** yet]] ARGUMENT RELATIVE  
 e. \*Kick the bucket? Well, he hasn’t **kicked it** yet. PRONOMINALIZATION  
 f. \***How much of the bucket** did he **kick**? *wh*-MOVEMENT

Over the last fifty years, research on idioms has influenced much syntactic argumentation, but discrepancies in the syntactic behavior of superficially similar idioms, like *pull strings* in (179) and *kick the bucket* in (180), have themselves proven difficult to analyze. A common feature of many proposals is that idioms must satisfy some locality requirement that constrains the relations between their parts in order for the idiomatic interpretation to remain available, often formalized in structural terms, perhaps in a manner similar to that in (181).

- (181) IDIOM LOCALITY CONDITION: If *X* is the minimal constituent containing all the idiomatic material, the head of *X* is part of the idiom.

[Koopman and Sportiche 1991: 224, ex. 10]



It is conceivable that the different restrictions on which syntactic operations are permitted to alter the structure associated with component parts of the phrasal idiom might arise from differences in when in the derivation particular idioms must satisfy a locality constraint like that in (181). One can imagine an analysis in the Government and Binding framework (Chomsky 1981, 1982) in which *pull strings* must only satisfy locality at D-structure, while *kick the bucket* must satisfy locality both at D-structure and at S-structure. Or in Relational Grammar (Perlmutter 1980, 1983; Perlmutter and Rosen 1984; Perlmutter and Joseph 1990; Blake 1990), the idiomatic interpretation of *pull strings* might be assigned on the initial stratum, but the idiomatic interpretation of *kick the bucket* might be assigned on the final stratum.

Idiomatic  $\psi$ -expressions in Palauan share a common descriptive template: [ $\psi$ -PREDICATE] + [POSSESSED  $\psi$ -ARGUMENT] + [POSSESSOR].<sup>5</sup> If the argument of a potentially idiomatic  $\psi$ -predicate is not a  $\psi$ -argument, only the literal interpretation of the predicate is available. In (182) through (184) below, the (a) examples illustrate the literal meanings of the predicates, while the (b) examples show how they combine with  $\psi$ -arguments to form phrasal idioms.

- (182) a. Ak **suebek** el mo cheroid e olengull.  
 1SG= INTR.fly L go far and rest  
 “I would fly away and find rest.” [Chedaol Biblia, Psalms 55:6]
- b. Ng kmal **suebek a reng-uk** el dikea le-sebech-ek el  
 3SG= very INTR.fly D heart-1SGP L no.longer 3S.IRR-ability-1SGP L  
 mengedecheduch.  
 speak.IMPF  
 “I am so worried that I cannot speak.” (lit. “My heart is flying so much that I cannot speak any longer.”) [Chedaol Biblia, Psalms 77:4]
- (183) a. Ng **klou** el beluu el diak a dibus er ngii.  
 3SG= large L country L not.exist D lacking P there  
 “It is a big country; it has everything a person could want.”  
 [Chedaol Biblia, Judges 18:10]
- b. A **klou a reng-ul** a kuk ungil er a mesisiich el chad.  
 D big D heart-3SGP TOP more good P D strong L person  
 “It is better to be patient than powerful.” (lit. “(One) whose heart is big is better than a strong person.”) [Chedaol Biblia, Proverbs 16:32]

<sup>5</sup>Though we will see data in Sect. 4.3.2 involving nominalizations and compounds that diverge somewhat from this template.

- (184) a. Ak **ngmasech** el mo er a chetebt-el a eabed.  
 ISG= INTR.climb L go P D tops-3PL.—HUMP D clouds  
 “I will climb to the tops of the clouds.” [Chedaol Biblia, Isaiah 14:14]
- b. A Rubak a diak di le-mereched el **ngmasech a reng-ul**.  
 D Lord TOP NEG just 3S.IRR-fast L INTR.climb D heart-3SGP  
 “The Lord does not easily become angry.” (lit. “As for the Lord, his heart does not climb fast.”) [Chedaol Biblia, Nahum 1:3]

While the possessor of the  $\psi$ -argument is relatively free to participate in syntactic operations that will separate it (hierarchically and/or linearly) from the  $\psi$ -predicate and the possessed  $\psi$ -argument DP—e.g., the topicalization of the possessor *a Rubak* “the Lord” in (184b)—we will see that the  $\psi$ -argument DP itself is more restricted in terms of its position in the syntax if the idiomatic interpretation is to remain available. In descriptive terms, the  $\psi$ -argument must always immediately follow the  $\psi$ -predicate, while the possessor of the  $\psi$ -argument may be manipulated freely by whatever syntactic operations are able to target it, without blocking the idiomatic interpretation. The question I pursue throughout this chapter is how to formalize this constraint on locality between the  $\psi$ -predicate and its  $\psi$ -argument, how to determine at what point of the derivation it must apply, and what implications this choice has for theories of word formation and the syntactic interfaces. Three types of locality constraints are considered.

The first locality constraint is defined structurally in (185) and is similar in spirit to Koopman and Sportiche’s idiom locality condition in (181) which constrains idiom chunks based on constituency. The second is a lexical constraint defined in terms of selection. The third is a fairly radical type of locality constraint that does not apply to structure, but rather to the linearized string of morphophonological material (i.e., after Spell Out and linearization); this constraint is defined in (187).<sup>6</sup>

- (185) STRUCTURAL LOCALITY CONSTRAINT ON  $\psi$ -IDIOMS: The  $\sqrt{\text{ROOT}}$  of the  $\psi$ -argument DP (e.g.,  $\sqrt{\text{RENG}}$ ) must be dominated by the maximal projection of the  $\psi$ -predicate (i.e.,  $\nu\text{P}$ ,  $a\text{P}$ , etc.) when it is sent to the LF and PF interfaces.
- (186) LEXICAL SELECTION CONSTRAINT ON  $\psi$ -IDIOMS: The  $\psi$ -predicate must l-select the  $\psi$ -argument DP.

<sup>6</sup>I thank an anonymous reviewer for the suggestion that I consider a selection-based constraint on locality as well.

- (187) STRING LOCALITY CONSTRAINT ON  $\psi$ -IDIOMS: The  $\sqrt{\text{ROOT}}$  of a  $\psi$ -argument (e.g.,  $\sqrt{\text{RENG}}$ ) must be preceded by the  $\sqrt{\text{ROOT}}$  of the  $\psi$ -predicate in the linearized string of morphemes (i.e., in the post-syntactic grammar), and no other  $\sqrt{\text{ROOT}}$  may intervene between the two.

Each of the three constraints on locality makes clear predictions. For instance, the structural constraint in (185) aligns more closely with other analyses of the locality conditions on phrasal idioms in other languages, such as *kick the bucket*, but as we will see, it fails to explain certain patterns in raising-to-subject and coordination structures. The lexical selection constraint in (186) is flexible enough to predict the patterns in some of the data involving raising-to-subject constructions, but it still fails to capture certain extraposition and coordination facts. And while the post-syntactic string locality constraint in (187) is perhaps the most radical of the three in nature, it not only captures the patterns that the other two constraints fail to capture, but it also makes correct predictions about semantic identity among phrasal  $\psi$ -idioms of different categories that do not necessarily have the same structural configurations as canonical “predicate–argument”  $\psi$ -idioms, such as nominalizations and compounds, as is shown in Sect. 4.3.2.

If it turns out that the structural locality constraint in (185) and the lexical selection constraint in (186) must be rejected in favor of a string-based locality constraint like the one in (187), as I argue in this chapter, then we have further evidence that locality constraints on component parts of a phrasal idiom can apply not only at different stages of the derivation in the narrow syntax, but also in the post-syntactic component of the grammar. It is the goal of the following sections to examine the empirical properties of  $\psi$ -idioms to weigh the pros and cons of adopting any of the three locality constraints in (185) through (187).

### 4.1.2 *Accusative $\psi$ -Arguments and (Non-)incorporation*

The data examined in the following sections reveals a pattern showing that in A' dependency constructions and structures that result from applications of A-movement, a  $\psi$ -argument cannot appear in any position that does not immediately follow its selecting  $\psi$ -predicate, but the possessor of a  $\psi$ -argument can appear in nearly any position in which it can be licensed syntactically. It is quite natural to wonder whether an analysis involving either incorporation (in the sense of Baker 1988) or pseudo-incorporation (in the sense of Massam 2001, 2009; Dayal 2011; Baker 2014) of the  $\psi$ -argument into the  $\psi$ -predicate might explain the cases of apparently obligatory possessor ascension in the A' dependency constructions in Sect. 4.2.1 and the raising constructions in Sect. 4.2.2. Before going through the key data, some of which is quite subtle, I think that it's worthwhile to take a moment

to argue against an analysis of this sort so as to eliminate potential confusion as we progress.

Importantly, the phenomenon of Palauan possessor ascension was analyzed in Chap. 2 as extraction of the possessor from the specifier of a DP to satisfy an [EPP] feature on finite T, moving the possessor to the specifier of TP. But possessor ascension might also result from the optional incorporation of the  $\psi$ -argument into the predicate, which could leave the possessor as the only true DP argument of the complex predicate. For much of the data in Sects. 4.2.1 and 4.2.2, this type of analysis might work. But once we move beyond intransitive  $\psi$ -expressions, the morphosyntactic realizations of  $\psi$ -arguments with structural Accusative Case seriously undermine the plausibility of an incorporation analysis, since incorporation is assumed to absorb the Case-licensing requirements of the incorporee (Baker 1988 et seq.).<sup>7</sup>

It is fairly straightforward to see why the very tight syntactic relationship between a  $\psi$ -predicate and a  $\psi$ -argument cannot always be assumed to derive from (pseudo-)incorporation. First of all, as is true of all (non-predicative) nominal phrases,  $\psi$ -arguments are DPs that contain overt determiners. In analyses of incorporation and pseudo-incorporation in other languages, it has been argued that a requirement for the (pseudo-)incorporation of a noun is that the noun must not be in a DP, but rather just an NP. We have also seen that when the  $\psi$ -argument immediately follows the  $\psi$ -predicate, the subject agreement does not necessarily match the features of the possessor, for instance in (177a), repeated below.

- (177a) Ng            **kesib** a **reng-rir**            e le     a re-me-klou el chad  
 3PL.—HUM= sweat D heart-3PL.+HUMP because D PL-PL-big L people  
 a di melekoi.  
 TOP just speak  
 “They are angry because the adults are all talk (and no action).” (lit. “Their hearts are sweating because...”)  
[Tia Belau, 6 April 2009]

However, proponents of an incorporation analysis in which *a rengrir* “their hearts” incorporates into the verb *kesib* “sweat” might argue that the [3PL, —HUM] subject agreement marker *ng* is actually the (homophonous) default [3SG] *ng* that can also optionally appear in existentials and must appear in clauses with zero-place weather predicates, for example. While this hypothesis might capture the subject agreement possibilities, it fails to explain the case-marking and object agreement patterns that arise when the  $\psi$ -argument is a direct object.

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<sup>7</sup>Baker (2014) analyzes pseudo-incorporation as a subtype of true incorporation and suggests that even case-marked nominals can incorporate in some languages, like Hungarian. Despite the parallels between the adjacency effects in Palauan  $\psi$ -idioms and pseudo-incorporation constructions, it seems unlikely that an incorporation analysis can explain the co-existence of the two different forms of nominal  $\psi$ -idioms (compounds and syntactic nominalizations) described in Sect. 4.3.2.

In Palauan, possessor ascension can only create subjects from possessors, not direct objects.<sup>8</sup> On the analysis I propose in Chap. 2, this is due to the [EPP] feature on finite T. The possessor raises to the specifier of a finite TP so as to satisfy the EPP. Nevertheless,  $\psi$ -arguments can also be direct objects; we have already seen an example of this in (175c), repeated below, and further examples are given in (188).

- (175c) L-ak            bechi-titerir            a re-mekngit el chad me  
 3S.IMP-NEG let.PF-3PL.+HUMO D PL-evil L people so.that  
**l-o-sebek-ii**            [a **reng-um** *pro* ] *pro*.  
 3S.IRR-CAU-fly.PF-3SGO [D heart-2SGP you ] they  
 “Don’t let evil people worry you.” (approx. “Don’t let the evil people make your heart fly.”) [Chedaol Biblia, Proverbs 24:19]

- (188) a. A di **k-ki/lu-ngii**            a **reng-uk** el telkib el  
 D just 1SGS.IRR-PAST.enlarge.PF-3SGO D heart-1SGP L little.bit L  
 meketeket e ng ultebechel el ngar er ngii a mo  
 spend.time then 3SG= RES.confirm L be P there TOP become  
 ungil el k-udesu-ii.  
 good L 1SGS.IRR-think.of.PF-3SGO  
 “Whenever I was just patient and waited for a little while, I was certain to have a good idea.” (lit. “Whenever I just made my heart big and...”) [CB 88]
- b. Tia a me-kngit el ngar er a med-al a Rubak e mo  
 this TOP INTR-bad L be P D eyes-3SGP D Lord and AUX.FUT  
**o-ngesech-ii**            a **reng-ul**.  
 CAU-climb.PF-3SGO D heart-3SGP  
 “This is evil in the Lord’s sight, and it will make him angry.” (lit. “...and will make his heart climb.”) [Chedaol Biblia, Deuteronomy 4:25]

In (175c) and (188), the  $\psi$ -predicates are transitive verbs in their perfective forms and correspondingly agree with their direct objects. In (188b) we can’t be sure whether the verb *ongesechii* “make climb” agrees with the entire  $\psi$ -argument or just its possessor since both are 3SG, but in (175c) and (188a), the verbs *osebekii* “throw/make fly” and *kilungii* “enlarged/made big” clearly agree with the full  $\psi$ -argument DPs and not simply their possessors.

<sup>8</sup>In other languages, by contrast, there are transformations in which possessors can be promoted to direct object, for example in Malagasy (Keenan 1972; Keenan and Ralalaoherivony 2000), Tzotzil (Aissen 1979, 1987), Hungarian (Szabolcsi 1994), West Greenlandic (van Geenhoven 2002), and many others in Payne and Barshi (1999).

In fact, object agreement with the possessor of a direct object  $\psi$ -argument is fully ungrammatical. Note how (175c) and (188a) contrast with (189a–b) below.

- (189) a. \*L-ak bechi-titerir a re-mekngit el chad me  
 3S.IMP-NEG let.PF-3PL.+HUMO D PL-evil L people so.that  
**l-o-sebek-au** [a **reng-um** *pro*] *pro*.  
 3S.IRR-CAU-fly.PF-2SGO [D heart-2SGP you] they  
 (“Don’t let evil people worry you.”)
- b. \*A di **k-ki/lu-ngak** a **reng-uk** el telkib el  
 D just 1SGS.IRR-PAST.enlarge.PF-1SGO D heart-1SGP L little.bit L  
 meketeket e...  
 spend.time then...  
 (“Whenever I was just patient and waited for a little while, then...”)

One way to analyze the apparently obligatory object agreement with the full  $\psi$ -argument is to think of it as a consequence of the analysis of possessor ascension as being driven exclusively by an [EPP] feature on finite T. Specifically, possessor ascension turns possessors into *subjects* by raising them to the specifier of TP and agreeing with them. Finite T is directly responsible for the structural separation of the possessor DP and the possessee DP it originates in. As there is no [EPP] feature on transitive  $v$  (or perhaps any head at all between T and the direct object), there is nothing to drive a similar extraction of the possessor from a direct object DP. The possessor remains inside the larger possessee DP, perhaps licensed with structural Genitive Case by moving to the specifier of DP along the lines of Fig. 2.9.

On Baker’s (1988) classic analysis of incorporation, arguments of a predicate can be licensed either by Case or by incorporation. If the  $\psi$ -argument were incorporated, it would not need Case, and its possessor should just as easily be able to be a direct object as a subject, contrary to fact. Regardless of the analysis, the data in (175c) and (188a) contrasts with (189a–b) in a way that strongly suggests that no part of the  $\psi$ -argument incorporates into the predicate. Otherwise, we might expect possessor ascension to create both subjects and direct objects, if not because of the EPP, then because it would be the only DP in the c-command or m-command domain of transitive  $v$ . If object agreement on perfective verbs is the morphological reflex of structural Accusative Case, as was proposed in Chap. 3, and object agreement indexes the features of the entire  $\psi$ -argument DP and not simply its possessor, then it would seem that the entire  $\psi$ -argument is just that: a core argument of the predicate. This DP is licensed by Case, not by incorporation.

The facts are confirmed in sentences containing imperfective forms of transitive  $\psi$ -predicates. As we saw in Chap. 3, structural Accusative Case is registered morphologically with a case marker *er* on the dependent (direct object) DP, but only if the DP is either human or both singular and specific. In (190) below, we can see that it is the features of the entire  $\psi$ -argument DP (and not its possessor) that determine whether structural Accusative Case is realized as *er* or  $\emptyset$ .

- (190) a. A David a **mi/subed** a **reng-rir** a re-ched-al el  
 D David TOP PAST.inform.IMPf D hearts-3PL.+HUMP D PL-man-3SGP L  
 kmo ng kmal diak le-kir-ir el oldechelakl  
 C 3SG= very NEG 3S.IRR-obligation-3PL.+HUMP L fight.IMPf  
 er a Saul.  
 ACC D Saul

“David convinced his men that they should not attack Saul.”

[*Chedaol Biblia*, 1 Samuel 24:7]

- b. Rechedam me a re-chedil, l-ak **m-ole-ngasech** a  
 father and D PL-mother, 3S.IRR-NEG 2S.IRR-CAU-climb.IMPf D  
**reng-rir** a re-ngelek-iu.  
 hearts-3PL.+HUMP D PL-child-2PLP

“Parents, do not treat your children in such a way as to make them angry.”

[*Chedaol Biblia*, Ephesians 6:4]

In both sentences in (190), the absence of the accusative case marker *er* after the  $\psi$ -predicates suggests that the  $\psi$ -argument DPs themselves, and not their possessors, are being treated as direct objects of the predicates. If the  $\psi$ -arguments were incorporated into the predicates and the possessors in (190) ascended to become direct objects, we should expect to find an overt accusative case marker *er* in both sentences. In (190), the possessors of the  $\psi$ -arguments are *a rechedal* “his men” and *a rengelekiu* “your children,” respectively, which (as human direct objects) should be marked with the overt case marker *er*, but they are not. If the  $\psi$ -arguments themselves are direct objects, then the absence of *er* is expected in both sentences. Interestingly, when the  $\psi$ -argument is singular, it is regularly (and obligatorily) marked with *er* when it occupies direct object position, e.g., in (191).

- (191) a. ...ng millekoi a Charlotte el ko er a **melisiich** er a  
 ...3SG= PAST.speak D Charlotte L like P D strengthen.IMPf ACC D  
**reng-ul** a Wilbur.  
 heart-3SGP D Wilbur

“...said Charlotte, to sort of give Wilbur courage.” (approx. “...to strengthen Wilbur’s heart.”)

[CB 81]

- b. \*...ng millekoi a Charlotte el ko er a **melisiich** a  
 ...3SG= PAST.speak D Charlotte L like P D strengthen.IMPf D  
**reng-ul** a Wilbur.  
 heart-3SGP D Wilbur

(“...said Charlotte, to sort of give Wilbur courage.”)

In short, Palauan possessor ascension seems to be able to promote possessors to become only subjects and not direct objects. An analysis in which possessor

ascension is the result of (optional) incorporation of material from within the  $\psi$ -argument DP bears the burden of explaining why the incorporation can only occur if the promoted possessor DP later becomes a subject. In the syntactic framework I assume, this is a standard Look Ahead problem; i.e., the application of incorporation would only yield a grammatical configuration if an external argument DP is not later introduced by transitive  $v$ . The analysis that I proposed in Chap. 2, in which possessor ascension to subject is driven by the [EPP] feature on finite T, does not face this problem. It also has independent empirical support from biclausal raising-to-subject constructions and can be extended to cover cases of possessor ascension which probably do not involve incorporation, such as in existentials and modal nominal constructions. In short, possessor ascension is not a consequence of incorporation, and assuming that incorporation has occurred makes the wrong predictions for the case-marking and agreement patterns in (175c), and (188) through (191).

## 4.2 The Syntax of $\psi$ -Idioms

In the next several sections, I explore the extent to which the availability of the idiomatic interpretation of  $\psi$ -expressions interacts (and does not interact) with particular syntactic operations and constructions. Data is examined from A' dependency constructions, the domain of subject A-movement (both monoclausal and biclausal raising constructions as well as possessor ascension), and coordination.

### 4.2.1 A' Dependencies and $\psi$ -Idioms

In Chap. 1, Sect. 1.2.2.4, I summarized Georgopoulos's (1985, 1991) extensive and persuasive arguments that Palauan A' dependencies are not created by movement. Georgopoulos proposes an analysis in which the displaced element is base-generated in an A' position and binds a resumptive pronoun in an A position, which might be realized as a gap. In Palauan, topicalization—as well as other A' processes like clefting, relativization, etc.—generally can target either a possessor DP embedded within the larger possessed DP, as in (192), or the full DP containing the embedded possessor DP, as in (193) (see Capell 1949; Josephs 1975; Georgopoulos 1985, 1991 for details).<sup>9</sup>

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<sup>9</sup>Example (192a) comes from the Palauan translation of E.B. White's book *Charlotte's Web*, in which farm animals can speak. Interestingly, the Palauan translator marks the noun *charm* "animal" with the human plural marker *re-* in dialogue among talking animals. The prefix serves to mark nouns that are "sufficiently animate." In normal conversation between human speakers, this usage is usually restricted to human nouns, but in fictional stories with talking animals, it appears that animals can be considered "sufficiently animate" to get the marking, too.



(192) a. *wh*-QUESTION (CLEFT) OF POSSESSOR:

Ng **techa<sub>i</sub>** [a l-onguiu [a buk er **ngii<sub>i</sub>** ] tirke el  
 3SG= who? [D 3S.IRR-read.IMPF [D book P him/her ] those L  
 ngalek ]?  
 children ]

“Whose book are those kids reading?” (lit. “Who<sub>i</sub> are those kids reading  
 \_\_\_\_<sub>i</sub>’s book.”) [Georgopoulos 1991: 71, ex. 21b]

## b. RELATIVIZED POSSESSOR (RESTRICTIVE):

Ng mo osisiu a omerel-lel el mo er [**tirke el rokui** ]<sub>i</sub> [el kau  
 3SG= AUX.FUT same D action-3SGP L go P [those L all ] [L you  
 a mo soiseb el mo melai [a belu-rir  
 TOP AUX.FUT INTR.enter L AUX.FUT take.IMPF [D land-3PL.+HUMP  
 \_\_\_\_<sub>i</sub> ]].  
 <GAP> ]]

“He will do the same to everyone else whose land you invade.”

[*Chedaol Biblia*, Deuteronomy 3:21]

## c. TOPICALIZATION OF POSSESSOR:

E le [**a re-chad** ]<sub>i</sub> a diak l-sal mellomes [a  
 Because [D PL-person ] TOP NEG 3S.IRR-very light [D  
 reng-rir \_\_\_\_<sub>i</sub> ] el ua a re-charm.  
 heart-3PL.+HUMP <GAP> ] L like D PL-animal

“Because humans aren’t as smart as animals.”

[CB 88]

(193) a. *wh*-QUESTION (CLEFT) OF POSSESSED DP:

Ng [**techa el chelid er tir** ]<sub>i</sub> [a sebec-el \_\_\_\_<sub>i</sub> el  
 3SG= [who? L gods P them ] [D ability-3SGP <GAP> L  
 du-lii a kir-el a ngar er a med-ad el sils?  
 tell.PF-3SGO D business-3SGP D be P D face-1PL.INCP L days

“Which of their gods can predict the future?” [*Chedaol Biblia*, Isaiah 43:9]

## b. RELATIVIZED POSSESSED DP (NON-RESTRICTIVE):

Ak mo ngoi-titerir el mes-terir [**a**  
 1SG= AUX.FUT take.PF-3PL.+HUMO L give.PF-3PL.+HUMO [D  
**re-cherro-ir** *pro* ]<sub>i</sub>, el tirke el so-rir el  
 PL-enemy-3PL.+HUMP them ], L those L desire-3PL.+HUMP L  
 omek-oad er tir \_\_\_\_<sub>i</sub>.  
 CAU-die.IMPF ACC them <GAP>

“I will hand them over to their enemies, who want to kill them.”

[*Chedaol Biblia*, Jeremiah 34:20]

## c. TOPICALIZATION OF POSSESSED DP:

[A **omerkol-ir** *pro* ]<sub>i</sub> a b/ok el debull \_\_\_\_<sub>i</sub>.  
 [D throat-3PL.+HUMP them ] TOP RES.open L graves <GAP>  
 “Their words are full of deadly deceit.” (lit. “Their throats are exhumed graves.”)  
 [Chedaol Biblia, Romans 3:13]

The data in (192) and (193) illustrates the general availability of nearly any DP to participate in an A'-dependency. In each of the sentences in (193), the entire possessed DP is targeted, while in (192), only the possessor is targeted.

Now, an interesting restriction surfaces when the possessed DP serves as the  $\psi$ -argument of an idiomatic  $\psi$ -predicate. In such cases, A' dependencies may target only the possessor located *inside* the  $\psi$ -argument DP; they may not involve the entire  $\psi$ -argument DP. First consider (194) and (195), which involve topicalization. The key difference between the (a) and (b) sentences in (194) and (195) is that in the former sentences just the possessor of the  $\psi$ -argument DP is targeted to participate in the A' dependency created by topicalization, whereas in the latter sentences it is the entire  $\psi$ -argument DP that participates in the A' dependency.

(194) a. TOPICALIZATION OF POSSESSOR OF  $\psi$ -ARGUMENT:

[A Peter ]<sub>i</sub> a m/o **suebek** [a **reng-ul** \_\_\_\_<sub>i</sub> ].  
 [D Peter ] TOP PAST.become INTR.fly [D heart-3SGP <GAP> ]  
 “Peter became worried.”  
 (approx. “As for Peter, his heart started flying.”) [KN 26]

b. TOPICALIZATION OF ENTIRE  $\psi$ -ARGUMENT:

\*[A **reng-ul** [a Peter ]]<sub>i</sub> a m/o **suebek** \_\_\_\_<sub>i</sub>  
 [D heart-3SGP [D Peter ] ] TOP PAST.become INTR.fly <GAP>  
 (“Peter became worried.”)  
 (approx. “As for Peter’s heart, it started flying.”)

(195) a. TOPICALIZATION OF POSSESSOR OF  $\psi$ -ARGUMENT:

[A re-ungil el chad ]<sub>i</sub> a **ungil** [a **reng-rir**  
 [D PL-good L people ] TOP good [D heart-3PL.+HUMP  
 \_\_\_\_<sub>i</sub> ] ... er se el l-es-eterir a  
 <GAP> ] ... P that.(time) L 3S.IRR-see.PF-3PL.+HUMO D  
 re-mekngit el o-bals.  
 PL-bad L PASS-punish  
 “Good people are glad ... when they see the wicked punished.”  
 (approx. “As for good people, their hearts are good when they see the bad (one)s punished.”)  
 [Chedaol Biblia, Job 22:19]

b. TOPICALIZATION OF ENTIRE  $\psi$ -ARGUMENT:

\*[A **reng-rir** [a re-ungil el chad ]]i a **ungil** \_\_\_\_i  
 [D heart-3PL.+HUMP [D PL-good L people ]] TOP good <GAP>  
 ... er se el l-es-eterir a re-mekngit el  
 ... P that.(time) L 3S.IRR-see.PF-3PL.+HUMO D PL-bad L  
 o-bals.  
 PASS-punish

(“Good people are glad ... when they see the wicked punished.”)  
 (approx. “As for good people’s hearts, they are good when they see the bad (one)s punished.”)

In (194a) and (195a), the ability of possessors to participate in A’ dependencies is once again exploited, just like in the possessor topicalization we saw above in (192a). However, unlike the topicalized possessed DP in (193a), topicalization of the  $\psi$ -argument DPs in (194b) and (195b) yields ungrammaticality on the idiomatic interpretations of the  $\psi$ -predicates *suebek* and *ungil*, respectively. That is, (194b) is only grammatical on the irrelevant literal interpretation that asserts that a physical heart is actually flying (not that somebody is worrying), and (195b) can likewise only mean that physical hearts are good (not that people are glad). Note the relative positioning of the  $\psi$ -predicates (*suebek* and *ungil*) and the  $\psi$ -arguments (*rengul* and *rengrir*); in the grammatical (a) sentences, the  $\psi$ -predicate appears right before the  $\psi$ -argument, while in the ungrammatical (b) sentences, the topicalization operation forces the  $\psi$ -argument to be pronounced much earlier, before the  $\psi$ -predicate.

Similar patterns emerge when other A’ dependencies are taken into consideration. For instance, consider the cleft constructions below. The sentences in (196) provide examples of *wh*-questions, which are based on cleft structures. Standard clefts are presented in (197). And (198) provides examples of free relatives that are based on clefts. Each pair of sentences exhibits the same pattern as the topicalizations in (194) and (195).

(196) a. *wh*-QUESTION (CLEFT) OF POSSESSOR OF  $\psi$ -ARGUMENT:

Ng ko el techa; [a **mellomes** [a **reng-ul** \_\_\_\_i ] [el  
 3SG= like L who? [D light [D heart-3SGP <GAP> ] [L  
 sebec-el el mechur a eabed, e okellakl me ng  
 ability-3SGP L count.PF D clouds and hold.at.angle.PF so 3SG=  
 ruebet a chull ]?  
 INTR.fall D rain ]

“Who is wise enough to count the clouds and tilt them over to pour out the rain?”

(approx. “The (one who)se heart is light for his/her ability to count the clouds and hold them at an angle so that the rain falls is like who?”)

[*Chedaol Biblia*, Job 38:37]

b. *wh*-QUESTION (CLEFT) OF ENTIRE  $\psi$ -ARGUMENT:

\*Ng ko el [**reng-ul** [techa ]]<sub>i</sub> [a **mellomes** \_\_\_\_<sub>i</sub> ] [el  
 3SG= like L [heart-3SGP [who? ]] [D light <GAP> ] [L  
 sebec-el el mechur a eabed, e okellakl me ng  
 ability-3SGP L count.PF D clouds and hold.at.angle.PF so 3SG=  
 ruebet a chull ]?  
 INTR.fall D rain ]

(“Who is wise enough to count the clouds and tilt them over to pour out the rain?”)

(approx. “The (one that) is light for his/her ability to count the clouds and hold them at an angle so that the rain falls is like whose heart?”)

(197) a. CLEFT OF POSSESSOR OF  $\psi$ -ARGUMENT:

Ng del-ak<sub>i</sub> [el **me-chas** [a **reng-ul** \_\_\_\_<sub>i</sub> ] er a  
 3SG= mother-1SGP [L PASS-blacken [D heart-3SGP <GAP> ] P D  
 teng er ngak ].  
 grades P me ]

“It’s my mother who is astonished at my grades.”

(approx. “It’s my mother whose heart is charred by my grades.”)

b. CLEFT OF ENTIRE  $\psi$ -ARGUMENT:

\*Ng [**reng-ul** [a del-ak \_\_\_\_<sub>i</sub> ]]<sub>i</sub> [el **me-chas** \_\_\_\_<sub>i</sub> er a  
 3SG= [heart-3SGP [D mother-1SGP ]] [L PASS-blacken <GAP> P D  
 teng er ngak ].  
 grades P me ]

“It’s my mother who is astonished at my grades.”

(approx. “It’s my mother’s heart that is charred by my grades.”)

(198) a. (FREE RELATIVE BASED ON) CLEFT OF POSSESSOR OF  $\psi$ -ARGUMENT:

Ng techa a mo o-diu-r a reng-uk, a  
 3SG= who? D become CAU-happy.PF-3SGO D heart-1SGP, D  
 l-ak le-kemiu<sub>i</sub> [el bla **k-temall** [a  
 3S.IRR-NEG 3S.IRR-you.PL [L IRR.AUX 1SGS.IRR-injure.PF [D  
**reng-miu** \_\_\_\_<sub>i</sub> ]].  
 hearts-2PLP <GAP> ]]

“Who would be left to cheer me up? Only the very persons I had made sad.”

(approx. “It is who that is the (one who) will make my heart happy? The (ones who) are not you, who I have injured’s hearts.”)

[*Chedaol Biblia*, 2 Corinthians 2:2]

b. (FREE RELATIVE BASED ON) CLEFT OF ENTIRE  $\psi$ -ARGUMENT:

\*Ng   techa a mo           o-diu-r                   a reng-uk,  
 3SG= who? D become CAU-happy.PF-3SGO D heart-1SGP,  
 a l-ak                   [**le-reng-miu**           *pro*   ]i [el bla  
 D 3S.IRR-NEG [3S.IRR-hearts-2PLP you.PL ] [L IRR.AUX  
**k-temall**                   \_\_\_\_\_i   ].  
 1SGS.IRR-injure.PF <GAP> ]

(“Who would be left to cheer me up? Only the very persons I had made sad.”)

(approx. “It is who that is the (one who) will make my heart happy? The (ones who)se hearts are not yours, who I have injured.”)

The cleft construction forces the clefted nominal into main predicate position. Since Palauan is VOS (Waters 1980; Georgopoulos 1986; Josephs 1997), any clefting of the  $\psi$ -argument will cause it to appear in a position to the left of the  $\psi$ -predicate, which will be stranded in the relative clause component of the cleft construction. When the clefted nominal is the possessor of the  $\psi$ -argument as in the (a) sentences, the relative positioning of the  $\psi$ -predicate and the  $\psi$ -argument is not disrupted, linearly or hierarchically. The sentences are thus grammatical on the idiomatic reading of the  $\psi$ -expressions: *mechas a rengul* in (196a) means “astonished” and not “charred-hearted,” *mellomes a rengul* in (197a) means “wise” and not “light-hearted,” and *temall a rengmiu* in (198a) means “make you sad” and not “injure your hearts.”

However, if the entire  $\psi$ -argument is clefted as in the (b) sentences, it must appear earlier in the sentence, and it is pronounced before the  $\psi$ -predicate. Again, the data in (192) and (193) reveals that both options should be possible, but in the case of  $\psi$ -expressions that are phrasal idioms, they just aren’t—the only possible option is to cleft the possessor. In the grammatical (a) sentences, the  $\psi$ -predicate precedes and is adjacent to the  $\psi$ -argument, and the  $\psi$ -argument occupies a position within the larger  $\psi$ -predicate XP. In the ungrammatical (b) sentences, the  $\psi$ -predicate does not precede the  $\psi$ -argument, and if Georgopoulos is right, a resumptive pronoun appears in the position that should be occupied by the  $\psi$ -argument.

The pattern is the same in relative clause formation. Possessors of  $\psi$ -arguments can be freely relativized, but relativizing the full  $\psi$ -argument DPs destroys the idiomatic reading of the  $\psi$ -expression. This can be seen below in (199) and (200). The ungrammaticality of the sentence in (199b) can be explained in the same terms as the bad topicalizations and clefts in the (b) sentences in (194) through (198): relativization of the  $\psi$ -argument creates a gap or resumptive pronoun in the relative clause in the position that must be occupied by a  $\psi$ -argument to satisfy one of the locality constraints in (185) through (187).

(199) a. RELATIVIZED POSSESSOR OF  $\psi$ -ARGUMENT (NON-RESTRICTIVE):

E ng mla er ngii [a chebuul el chad<sub>i</sub> [el *kiliei* er  
 and 3SG= was P there [D poor L man [L PAST.live P  
 ngii el beluu \_\_\_\_<sub>i</sub> ]]<sub>j</sub> [el kmal mle **mellomes** [a  
 it L town <GAP> ]] [L so.much AUX.PAST light [D  
**reng-ul** \_\_\_\_<sub>j</sub> ] me ng mle sebec-el el  
 heart-3SGP <GAP> ] so.that 3SG= AUX.PAST ability-3SGP L  
 o-sebel-ii a beluu ], e ng di *dimlak* a  
 CAU-survive.PF-3SGO D town ], but 3SG= just PAST.not.exist D  
 l-lotk-ii ngii el chebuul el chad.  
 3S.IRR-remember.PF-3SGO him L poor L man

“Someone lived there who was poor, but so clever that he could have saved the town. But no one thought about him.”

(approx. “And there was a poor man who lived in that village whose heart was so light that it was his ability to make the town survive, but there wasn’t a(nyone who) thought about him.”)

[*Chedaol Biblia*, Ecclesiastes 9:15]

b. RELATIVIZED ENTIRE  $\psi$ -ARGUMENT (NON-RESTRICTIVE):

\*E ng mla er ngii [a **reng-ul** [a chebuul el chad<sub>i</sub> [el  
 and 3SG= was P there [D heart-3SGP [D poor L man [L  
*kiliei* er ngii el beluu \_\_\_\_<sub>i</sub> ]]<sub>j</sub> [el kmal mle  
 PAST.live P it L town <GAP> ]]<sub>k</sub> [L so.much AUX.PAST  
**mellomes** \_\_\_\_<sub>j</sub> me ng mle sebec-el el  
 light <GAP> so.that 3SG= AUX.PAST ability-3SGP L  
 o-sebel-ii a beluu ].  
 CAU-survive.PF-3SGO D town ].

(“Someone lived there who was poor, but so clever that he could have saved the town.”)

(200) a. RELATIVIZED POSSESSOR OF  $\psi$ -ARGUMENT (RESTRICTIVE):

A president a **ngilai** a **reng-rir** a [re-chad er a  
 D president TOP PAST.obtain.PF D heart-3PL.+HUMP D [PL-person P D  
*Olbiil er a Kelulau* ]<sub>i</sub> [el mle **kedidai** a **reng-rir**  
 House P D Whispers ] [L AUX.PAST high D heart-3PL.+HUMP  
 \_\_\_\_<sub>i</sub> ].  
 <GAP> ]

“The president persuaded the senators that were being stubborn.”

(lit. “The president obtained the hearts of the senators that had high hearts.”)

b. RELATIVIZED ENTIRE  $\psi$ -ARGUMENT (NON-RESTRICTIVE):

- \* A president a **ngilai** a [reng-rir [a re-chad er  
 D president TOP PAST.obtain.PF D [heart-3PL.+HUMP [D PL-person P  
 a *Olbiil er a Kelulau* ]]i [el mle **kedidai** \_\_\_\_i ].  
 D House P D Whispers ]] [L AUX.PAST high <GAP> ]  
 (“The president persuaded the senators that were being stubborn.”)  
 (lit. “The president obtained the senators’ hearts that were high.”)

The contrast between the sentences in (200), on the other hand, illustrates a new fact. These sentences contain two  $\psi$ -idioms each. The first is transitive, and the  $\psi$ -argument *a rengrir a rehad er a Olbiil er a Kelulau* “the hearts of the senators” is treated grammatically as the direct object of the perfective verb *ngilai* “obtain,” which is the first of the two  $\psi$ -predicates in the sentence. In (200a), the possessor of the  $\psi$ -argument, *a rehad er a Olbiil er a Kelulau* “the senators” is relativized, and the relative clause contains a second  $\psi$ -predicate *kedidai* “high” with its own  $\psi$ -argument *a rengrir* “their hearts.” Since the A’ gap in the relative clause is in the position of the possessor of the second  $\psi$ -argument, the second  $\psi$ -predicate precedes and is adjacent to its  $\psi$ -argument (which occupies a position within the  $\psi$ -predicate XP), and the sentence is grammatical.

In (200b), by contrast, the entire  $\psi$ -argument, *a rengrir a rehad er a Olbiil er a Kelulau* “the senators’ hearts” is relativized. Nothing in the word order changes between (200a) and (200b). The only difference is that the A’ gap in the relative clause is in subject position, where a  $\psi$ -argument should be located in order for the idiomatic interpretation to be available. In morphophonological terms, *a rengrir* has simply been omitted from the relative clause. As a result, the sentence becomes ambiguous on two different irrelevant interpretations (neither of which corresponds to that of the idiomatic  $\psi$ -expression): one in which the physical hearts of the senators are high and another in which the senators themselves are high. On neither interpretation can the second  $\psi$ -predicate *kedidai* “high” take on its idiomatic meaning “stubborn” because of the position of the gap in the relative clause.

At this point, there are several issues that merit some consideration. The general pattern that emerges from the data in this section is that phrasal idioms that include a  $\psi$ -predicate with a  $\psi$ -argument appear to require some sort of adjacency between them. Possessor DPs from inside the  $\psi$ -argument may be displaced, but the entire  $\psi$ -argument DP may not. Given the three locality constraints proposed above, i.e., the structural locality constraint in (185), the selection-based locality constraint in (186), and the string locality constraint in (187), we have three different ways to understand this generalization about  $\psi$ -idioms and A’ dependencies.

Recall that on Georgopoulos’s (1985, 1991) analysis, this displacement is not the result of movement, as A’ dependencies are base-generated. Instead, what might in various frameworks be called the “base position,” “ $\theta$  position,” or “tail of an A’ chain” is occupied by a resumptive pronoun that is bound by a full DP merged in some higher A’ position in the structure. If Georgopoulos’s analysis is correct, then in the ungrammatical (b) sentences in (194) through (200), the  $\psi$ -predicates

that should be interpreted idiomatically are never in a local relation with a true  $\psi$ -argument at any stage of the derivation—instead, a resumptive pronoun (null or overt) that is co-indexed with a  $\psi$ -argument DP occupies that position.

It would thus seem that Georgopoulos's analysis of A' dependencies as resumption is tailor-made to account for the differences in grammaticality between the (a) and (b) sentences in (194) through (200). Furthermore, it paves the way for us to adopt a structurally defined constraint on the locality of idiomatic predicates and their subcomponents that does not depart from most standard analyses of idioms in more familiar languages, perhaps along the lines of (181) or (185). The lexical selection constraint in (186) also accounts for the facts, because on Georgopoulos's analysis,  $\psi$ -predicates do not select  $\psi$ -arguments themselves, but rather resumptive pronouns that are bound by would-be  $\psi$ -arguments. If the idiomatic predicate's maximal projection must contain the rest of the subcomponent parts of the idiom, we might be able to make sense of the patterns in (194) through (200), and there would be no need to posit an additional string adjacency constraint that holds after linearization like (187).

Nonetheless, we will see below that the structurally defined constraint and the selection-based constraint on idiom locality face additional challenges when other types of constructions are considered, including A-movement and coordination.

#### 4.2.2 *Possessor Ascension, Raising, and $\psi$ -Idioms*

In Chap. 2, I analyzed subjects as DPs that occupy the specifier of TP, and finite T as the source of  $\varphi$ -feature sharing with the subject. We also saw that in some constructions involving existential predicates and modal nominals, possessors of DPs could themselves be targeted as subjects; the phenomenon I called *possessor ascension*, adopting the terminology from Relational Grammar (see Aissen 1979 and various papers in Perlmutter 1983, e.g., Bell 1983). So far, predicate–argument combinations that have been shown to *allow* possessor ascension do not generally *require* it. The option for the possessor to remain within the possessed DP has always been a possibility.  $\Phi$ -feature sharing is triggered by whichever DP is in the specifier of finite T: either the possessor or the entire possessed DP. In this section, however, it will be shown that the facts involving monoclausal and biclausal subject-raising constructions are incompatible with the structural locality constraint on  $\psi$ -idioms in (185), but not the lexical selection constraint in (186) or the string locality constraint in (187). Furthermore, the interaction between biclausal subject raising and clause extraposition shows that the lexical selection constraint in (186) is too weak to account for the ungrammaticality of certain configurations, but the string locality constraint faces no such problem.

In  $\psi$ -idioms, subject agreement morphology can be triggered by entire  $\psi$ -argument DPs, taking the realis form *ng* in (201a) and the irrealis form *le-* in (201b). *Ng* appears either when the subject is a non-human plural or when it is singular



(human or non-human). Thus, all  $\psi$ -arguments (which are uniformly non-human) should trigger the *ng* morpheme as the subject marker in realis clauses whether they are singular or plural. However, in (202), subject agreement clearly targets the possessors of the  $\psi$ -argument DPs, whose head nouns bear matching possessor agreement morphology. By contrast, the possessors in (201) do not ascend to subject position, and the possessor agreement does *not* match the subject agreement.

(201) SUBJECT AGREEMENT WITH ENTIRE  $\psi$ -ARGUMENT:

- a. **Ng** ko er a mlo telkib el suebek [a  
3PL.—HUM= like P D PAST.become little.bit L INTR.fly [D  
**reng-mam** *pro* ].  
hearts-1PL.EXCP we.EXC ]

“We sort of became a little bit worried.” (lit. “Our hearts are as if they have become a little bit flying.”) [EI 25]

- b. A bo-cha **le-meched** [a **reng-um** *pro* ] e ke  
D IRR.become-ICP 3S.IRR-shallow [D heart-2SGP you ] then 2SG=  
melim a bodes er a bng-al a kerrekar.  
drink.IMP D nectar P D flowers-3PL.—HUMP D trees.

“Whenever you get thirsty, you drink nectar from the flowers in the trees.” (lit. “When your heart starts to become shallow, then you drink nectar from the trees’ flowers.”) [KC 50]

(202) SUBJECT AGREEMENT WITH POSSESSOR OF  $\psi$ -ARGUMENT:

- a. **Te** kmal mekngit a reng-**rir** *pro*.  
3PL.+HUM= very bad D hearts-3PL.+HUMP they

“They are really upset.”(approx. “They are very bad-hearted.”)

[Roureor Belau, 22 May 2002]

- b. Tia a rul-lak *pro* me **ak** kmal mo suebek a  
this TOP make.PF-1SGO me so.that 1SG= very become INTR.fly D  
**reng-uk** *pro* er a Fern.  
heart-1SGP I P D Fern

“This is making me very worried about Fern.” (approx. “This is making me so that I am becoming very flying-hearted about Fern.”) [CB 69]

In this section, I confront four different types of data in which the possessor of a  $\psi$ -argument *must* extract from the possessed DP to become the subject of the clause in order to preserve the idiomatic interpretation of the predicate:

- i. movement of the subject to the right, past an optional PP argument,
- ii. raising-to-subject from an embedded clause past an *er a chelsel a*-PP aspectual modifier which can only be licensed by the matrix raising predicate,

- iii. raising-to-subject from an embedded clause, with subsequent extraposition of the entire embedded clause, and
- iv. raising-to-object.

Each of the movement types reveals that even though treating the  $\psi$ -argument DP as the matrix subject should be permissible as it is in (201), this is possible only if movement to subject position leaves the  $\psi$ -argument subject in a position that immediately follows the  $\psi$ -predicate and the output of any other transformations does not disrupt this adjacency. The data below shows that this can only happen if the subject movement is string-vacuous, i.e., if the DP moving to the rightward-branching Spec TP does not cross any overt material.

#### 4.2.2.1 Optional PP Arguments

If the  $\psi$ -predicate allows an optional PP argument, the possessor of the  $\psi$ -argument can appear on either side of the PP, as in (203). I know of no evidence to support any particular view of where the optional PP argument attaches in the surface syntax, but the fact that the possessor does not form a constituent with the rest of the possessed DP (to the exclusion of the PP) in (203b) suggests that it has raised to a higher position outside of the possessed DP. I analyzed this as subject movement to Spec TP in Chap. 2, which leaves multiple possible attachment sites for the PP argument.

(203) POSSESSOR OF  $\psi$ -ARGUMENT CAN PRECEDE OR FOLLOW A PP IN THE SAME CLAUSE:

- a. Ng *li/luut* el mo **kesib** a **reng-ul**  $t_i$  [a Rubak ]<sub>i</sub>  
 3SG= PAST.again L become sweaty D heart-3SGP [D Lord ]  
 [PP er a re-chad er a Israel ].  
 [ P D PL-person P D Israel ]

“On another occasion the Lord was angry with Israel.”

[*Chedaol Biblia*, 2 Samuel 24:1]

- b. Te [r-ua techa ]<sub>j</sub> [tirke [el mle **kesib** a **reng-ul**  
 3PL.+HUM= [PL-like who ] [those [L AUX.PAST sweaty D heart-3SGP  
 $t_i$  [PP er tir<sub>j</sub> ] [a Dios ]<sub>i</sub> el 40 el rak ]]  
 [ P them ] [D God ] L 40 L years ]]

“With whom was God angry for forty years?”

[*Chedaol Biblia*, Hebrews 3:17]

The entire  $\psi$ -argument should in principle also be able to serve as the subject of the clause, just as a non- $\psi$ -argument does in (201), so one might wonder whether it also has the option of either preceding or following an optional PP argument. As it turns out, it must precede the PP in order to yield the idiomatic reading, as in (204a).

(204)  $\Psi$ -ARGUMENT MUST PRECEDE A PP IN THE SAME CLAUSE:

- a. Ng m/o **kesib**  $t_i$  [a **reng-ul** [a Oskar ]]<sub>i</sub> [PP er a  
3SG= PAST.become sweaty [D heart-3SGP [D Oskar ] ] [ P D  
del-al ].  
mother-3SGP ]

“Oskar got angry at his mother.” (lit. “Oskar’s heart became sweaty at his mother.”)

- b. \*Ng m/o **kesib**  $t_i$  [PP er a del-al ] [a **reng-ul**  
3SG= PAST.become sweaty [ P D mother-3SGP ] [D heart-3SGP  
[a Oskar ]]<sub>i</sub>.  
[D Oskar ]

(“Oskar got angry at his mother.”)

It is only in the ungrammatical example (204b) that the  $\psi$ -argument *a rengul* does not immediately follow the  $\psi$ -predicate *kesib*. While this fact does not argue for any one of the locality constraints in (185) through (187), it shows that some such constraint is required to account for the contrast between (203) and (204) in terms of the possible positions for the subject and the availability of the idiomatic interpretation.

The picture becomes even more interesting when we embed a predicate with an optional PP argument like *suebek a rengul* “worry” (lit. “(one)’s heart flies”) under a raising-to-subject predicate like *oumesingd* “tend.” In such a construction, the matrix subject position should unambiguously be to the right of the embedded PP argument, even if that PP argument has extraposed to the right edge of the embedded clause. In this configuration, both subject agreement and the distribution of the  $\psi$ -argument DP (and its possessor) with respect to the optional PP argument bear directly on the necessity for the idiom locality constraints in (185) through (187).

Consider the pattern below in (205). What the contrasts in (205) show is that in cases where overt lexical material intervenes between an intransitive  $\psi$ -predicate and the matrix subject position—here, the optional PP argument constitutes such material—possessor ascension is obligatory, so that the possessor can satisfy the EPP requirement in the matrix clause and the  $\psi$ -argument remnant can maintain its adjacency to the  $\psi$ -predicate.

(205) a. POSSESSOR ASCENSION AND RAISING TO MATRIX SPEC TP:

- Te/\*Ng **oumesingd** el *suebek* [a **reng-ir**  
3PL.+HUM=/3PL.-HUM= tend L INTR.fly [D hearts-3PL.+HUMP  
 $t_i$  ] [PP er a re-ngelek-ir ] [a **re-chedil** ]<sub>i</sub>.  
] [P D PL-child-3PL.+HUMP ] [D PL-mother ]

“Mothers tend to worry about their children.”

- b. ENTIRE  $\psi$ -ARGUMENT RAISES TO MATRIX SPEC TP:

\*Ng/\*Te oumesingd el *suebek* [<sub>PP</sub> er a re-ngelek-ir ]  
 3PL.±HUM= tend L INTR.fly [ P D PL-child-3PL.+HUMP ]  
 [a reng-rir [a **re-chedil** ]].  
 [D hearts-3PL.+HUMP [D PL-mother ]]

(“Mothers tend to worry about their children.”)

- c. NO RAISING OF  $\psi$ -ARGUMENT DP OR ITS POSSESSOR TO MATRIX SPEC TP:

\*Ng/\*Te oumesingd el *suebek* [a reng-rir a  
 3PL.±HUM= tend L INTR.fly [D hearts-3PL.+HUMP D  
**re-chedil** ] [<sub>PP</sub> er a re-ngelek-ir ]].  
 PL-mother ] [ P D PL-child-3PL.+HUMP ]

(“Mothers tend to worry about their children.”)

In (205a), we see that when possessor ascension promotes a possessor to the matrix subject position, subject agreement must match the  $\varphi$ -features of the possessor, and not the  $\psi$ -argument DP remnant. In (205b), we see that raising the entire  $\psi$ -argument DP is ungrammatical (on the idiomatic interpretation). In (205c), we see that failing to apply possessor ascension is not an option either, due to the EPP requirements of the matrix T.

What the contrast between (205a) and (205c) seems to suggest is that the matrix subject position must be filled (consistent with the conclusions in Chap. 2). What the contrast between (205a) and (205b) suggests is that possessor ascension is the *only* way to satisfy the EPP requirement without disrupting the adjacency of the  $\psi$ -idiom chunks involved.

The pattern can be accounted for with either the structural or the string locality constraints in (185) and (187). However, the contrast between (205a) and (205b) serves as clear evidence against the lexical selection constraint in (186). This is because the selection requirement should be satisfied at initial merge, then allowing the entire  $\psi$ -argument DP to raise and become the subject of the matrix clause, crossing the embedded PP argument along the way. Of course, this is not what we see above.

#### 4.2.2.2 Raising-to-Subject and Aspectual Modification

In Chap. 2, Sect. 2.2.3, we saw examples of biclausal sentences in which the aspectual PP modifier [*er a chesel a* + <LENGTH OF TIME>] (cf. English *in an hour*) could be licensed only by the matrix predicate. This is clear from the fact that *er a chesel a*-PPs modify the telic endpoints of accomplishment and achievement predicates but are incompatible with stative and process/activity predicates. If the embedded predicate is a stative or process/activity predicate, and the matrix predicate is bounded, then the *er a chesel a*-PP must be licensed by the matrix predicate, and

presumably occupies a position outside of the embedded clause. The relevant data from (98) in Chap. 2, Sect. 2.2.3 is repeated below.

- (98) a. Te                    *milengedub*                    **a re-secheli-k.**  
 3PL.+HUM= PAST.go.swimming D PL-friend-1SGP  
 “My friends went swimming.”
- b. \*Te                    *milengedub*                    **a re-secheli-k**    [pp er a  
 3PL.+HUM= PAST.go.swimming D PL-friend-1SGP [ P D  
                   *chels-el*                    a ta el sikang ].  
                   space.inside-3SGP D one L hour ]  
 (“My friends went swimming in an hour.”)
- c. \*Te                    *milengedub*                    [pp er a *chels-el*                    a ta el  
 3PL.+HUM= PAST.go.swimming [ P D space.inside-3SGP D one L  
                   sikang ] **a re-secheli-k.**  
                   hour ] D PL-friend-1SGP  
 (“My friends went swimming in an hour.”)
- d. Te                    *m/o*                    *merek el* *mengedub*    **a re-secheli-k**  
 3PL.+HUM= PAST.become finished L go.swimming D PL-friend-1SGP  
                   [pp er a *chels-el*                    a ta el sikang ].  
                   [ P D space.inside-3SGP D one L hour ]  
 “My friends finished swimming in an hour.”
- e. Te                    *m/o*                    *merek el* *mengedub*    [pp er a  
 3PL.+HUM= PAST.become finished L go.swimming [ P D  
                   *chels-el*                    a ta el sikang ] **a re-secheli-k.**  
                   space.inside-3SGP D one L hour ] D PL-friend-1SGP  
 “My friends finished swimming in an hour.”

Even though *er a chysel a*-PPs cannot be used to diagnose the exact position of the subject, we can use them to diagnose at least some instances of movement out of embedded clauses if they cannot be licensed anywhere within the embedded clause. With this diagnostic, it can be shown that  $\psi$ -arguments cannot move rightward past an *er a chysel a*-PP to become the subject of a matrix raising predicate, if the idiomatic interpretation of the  $\psi$ -expression is to be maintained.

First, consider the stative predicate *meched* “shallow” in (206a). When it combines with a  $\psi$ -argument headed by the N *reng*, it forms an idiomatic  $\psi$ -expression meaning “thirsty,” as shown in (206b).

- (206) a. A Omoachel el Nail a mo                    **meched.**  
 D River                    L Nile TOP AUX.FUT shallow  
 “The water will be low in the Nile.”                    [Chedaol Biblia, Isaiah 19:5]

- b. Te kmal mle songerenger e **meched** a  
 3PL.+HUM= very AUX.PAST hungry and shallow D  
**reng-rir**.  
 hearts-3PL.+HUMP  
 “They were very hungry and thirsty.” (lit. “They were very hungry and  
 their hearts were very shallow.”) [BR 15]

As we saw in (96d) in Chap. 2, Sect. 2.2.3, *er a chelsel a*-PPs cannot combine with durative stative predicates, as these are inherently atelic.<sup>10</sup> The predicate *meched* never licenses *er a chelsel a*-PPs, regardless of whether it is interpreted literally or idiomatically, as it is stative on both readings.

- (207) a. \*Ng mle **meched** a omoachel [pp er a chels-el a  
 3SG= AUX.PAST shallow D river [ P D space.inside-3SGP D  
 bebil el sandei ].  
 few L weeks ]  
 (“The river was shallow in a few weeks.”)
- b. \*Ng/\*Te mle **meched** a **reng-rir** a re-merael  
 3PL.±HUM= AUX.PAST shallow D hearts-3PL.+HUMP D PL-traveler  
 [pp er a chels-el a bebil el sikang ].  
 [ P D space.inside-3SGP D few L hours ]  
 (“The travelers were thirsty in a few hours.”)

<sup>10</sup>It’s worthwhile to note that the examples in (207) are unambiguously interpreted as true durative statives, unlike their English translations, which can be coerced into denoting telic changes of state. In Palauan, the change of state interpretation requires the addition of the verb *mo* “become.” Compare (207) to (i).

- (i) a. Ng **m/o** meched a omoachel [pp er a chels-el a bebil el  
 3SG= PAST.become shallow D river [ P D space.inside-3SGP D few L  
 sandei ].  
 weeks ]  
 “The river became shallow in a few weeks.”
- b. Ng/Te **m/o** meched a **reng-rir** a re-merael [pp er a  
 3PL.±HUM= PAST.become shallow D hearts-3PL.+HUMP D PL-traveler [ P D  
 chels-el a bebil el sikang ].  
 space.inside-3SGP D few L hours ]  
 “The travelers became thirsty in a few hours.”

If the predicates *meched* “shallow” and *meched a rengul* “thirsty” are embedded under the raising predicate *mo merek* “become finished,” however, *er a chelsel a*-PPs can be licensed, presumably in a position external to the embedded clause.

(208) *Er a chelsel a*-PP CAN APPEAR CLAUSE-FINALLY:

- a. Ng m/o                      merek el **meched** a chei [pp er a  
3SG= PAST.become finished L shallow D sea [ P D  
chels-el                      a bebil el sikang ].  
space.inside-3SGP D few L hours ]  
“The tide went out in a few hours.” (lit. “The sea finished being shallow  
in a few hours.”)
- b. Ng/Te                      m/o                      merek el **meched** a **reng-rir**  
3PL.±HUM= PAST.become finished L shallow D hearts-3PL.+HUMP  
a re-merael [pp er a chels-el                      a bebil el sikang ].  
D PL-travel [ P D space.inside-3SGP D few L hours ]  
“The travelers stopped being thirsty in a few hours.” (approx. “The trav-  
elers finished being shallow-hearted in a few hours.”)

The contrast between the grammatical sentences in (208) and the ungrammatical sentences in (207) strongly suggests that the matrix predicate *mo merek* “become finished” is licensing the *er a chelsel a*-PP, which likely adjoins to some XP in the matrix clause. For present purposes, it doesn’t much matter where the *er a chelsel a*-PP attaches, as long as it is outside of the embedded clause; if it were in the embedded clause, we would expect sentences like those in (207) to be grammatical, contrary to fact. Importantly, the subject agreement in (208b) can be either *te* [3PL, +HUM] or *ng* [3PL, –HUM], suggesting that the subject can be either the entire  $\psi$ -argument or just its possessor.

As (209a) shows, raised subjects can (optionally) also appear to the right of an *er a chelsel a*-PP in the matrix clause. However, if the embedded clause contains a  $\psi$ -idiom, it is ungrammatical to raise the entire  $\psi$ -argument to become the matrix subject, as in (209b).

(209) RAISING OF ENTIRE DP ARGUMENT PAST *er a chelsel a*-PP:

- a. Ng m/o                      merek el **meched**  $t_i$  [pp er a chels-el  
3SG= PAST.become finished L shallow [ P D space.inside-3SGP  
a bebil el sikang ] [a chei  $],_i$ .  
D few L hours ] [D sea ]  
“The tide went out in a few hours.” (lit. “The sea finished being shallow  
in a few hours.”)

- b. \*Ng/\*Te            mlo            merek   el   **meched** [PP er a  
 3PL.±HUM= PAST.become finished L shallow [ P D  
 chels-el            a bebil el sikang ] [a **reng-rir**  
 space.inside-3SGP D few L hours ] [D hearts-3PL.+HUMP  
 a re-merael ]<sub>i</sub>.  
 D PL-travel ]  
 (“The travelers stopped being thirsty in a few hours.”)

Moving the subject of *meched* to the right of the *er a chelsel a-PP* in the matrix clause is permitted unless *meched* is treated as a  $\psi$ -predicate, i.e., if it is part of a phrasal idiom. In such cases, only the possessor of the  $\psi$ -argument can appear in a position to the right of the *er a chelsel a-PP*, as shown in (210). Unlike in (208b), where subject agreement could match the features of either the possessor or the entire  $\psi$ -argument, the subject agreement morphology in (210) must match the features of the possessor, which has moved to the right of the *er a chelsel a-PP*.

- (210) POSSESSOR ASCENSION AND RAISING PAST *er a chelsel a-PP*:

Te/\*Ng                            mlo            merek   el   **meched** a  
 3PL.+HUM=/3PL.-HUM= PAST.become finished L shallow D  
**reng-rir**                            t<sub>i</sub> [PP er a chels-el            a bebil el  
 hearts-3PL.+HUMP [ P D space.inside-3SGP D few L  
 sikang ] [a re-merael ]<sub>i</sub>.  
 hours ] [D PL-travel ]

“The travelers stopped being thirsty in a few hours.” (approx. “The travelers finished being shallow-hearted in a few hours.”)

Although the position of aspectual modifier PPs can vary due to extraposition and other factors, what is clear is that  $\psi$ -argument DPs cannot raise past a matrix *er a chelsel a-PP*—only their possessors can. The important conclusion to draw here is that there is nothing banning  $\psi$ -argument DPs from becoming subjects, in principle, but they may only do so if no overt lexical material intervenes between the subject position and the position of the  $\psi$ -predicate.

#### 4.2.2.3 Raising-to-Subject and Clause Extraposition

Recall from Chap. 2, Sect. 2.2.3 that if the subject has raised out of an embedded clause to the specifier of a higher TP, the embedded clause can extrapose to the right of the subject DP. We can tell that the subject originates in the embedded clause if the embedded predicate is a shape/size adjective, as this class of adjectives displays number agreement with plural subjects via prefixation of plural *me-*. The relevant data illustrating overt number agreement on the predicate is repeated below in (87a) and (90). On the clause extraposition analysis I propose in (92) in Chap. 2,



the subject first moves (string-vacuously) to the rightward-branching specifier of the matrix TP, as shown in (87a), repeated below, and the embedded clause subsequently extraposes to the right of the extracted subject, as shown in (90).

- (87a) Te                      oumesingd el mo        **me-klou** a re-ngalek.  
 3PL.+HUM= tend              L become PL-big      D PL-child  
 “Children tend to grow up.” (lit. “Children tend to become big.”)

- (90) Te                      oumesingd a re-ngalek el mo        **me-klou**.  
 3PL.+HUM= tend              D PL-child      L become PL-big  
 “Children tend to grow up.”

What is immediately relevant about this optional clause extraposition in raising-to-subject constructions is that if the raised subject is a  $\psi$ -argument, then clause extraposition can create a configuration in which the  $\psi$ -argument does not immediately follow its  $\psi$ -predicate. Given the patterns above, it might be expected that clause extraposition in these cases destroys the idiomatic reading of the  $\psi$ -expression, which turns out to be exactly what we find.

The predicate *moalech* “wither(ed)” in (211a) can form a  $\psi$ -expression meaning “disappointed” as shown in (211b).

- (211) a. Ak    **moalech** el ua    chudel.  
 1SG= wither    L like grass  
 “I wither like grass.”                      [*Chedaol Biblia*, Psalms 102:11]
- b. E ng di ngike el chad    el oumera er ngii a    diak bo  
 But    that    L person L believe P it    TOP NEG AUX.FUT.IRR  
       **le-moalech**        a **reng-ul**.  
       3S.IRR-withered D heart-3SGP  
 “But those who have faith in that one will never be disappointed.”  
 (approx. “But that person who believes in it will not be withered-  
 hearted.”)                      [*Chedaol Biblia*, Romans 9:33]

If a clause containing *moalech* is embedded under an aspectual raising predicate like *melemolem* “continue,” the subject of the embedded clause containing *moalech* can raise to become the subject of the matrix clause, triggering subject agreement morphology on the matrix raising predicate as shown in (212a–b). If the subject is clause-final, it makes no difference whether it is the entire  $\psi$ -argument or just the possessor of the  $\psi$ -argument that is raised, as indicated in (212b) by the acceptability of both [3PL, –HUM] *ng* and [3PL, +HUM] *te* as possible forms of subject agreement morphology. Put differently, possessor ascension is optional in (212b).

## (212) STRING-VACUOUS RAISING (WITH OPTIONAL POSSESSOR ASCENSION):

- a. Ng                *mi/lemolem*    el **moalech**   a ll-el                a  
                          3PL.–HUM= PAST.continue L    wither          D leaves-3PL.–HUMP D  
                          kebui.  
                          betel.pepper  
                          “The betel pepper leaves continued to wither.”
- b. Ng/Te            *mi/lemolem*    el **moalech**   a **reng-rir**                a  
                          3PL.±HUM= PAST.continue L    wither          D hearts-3PL.+HUMP D  
                          del-rir.  
                          mothers-3PL.+HUMP  
                          “Their mothers continued to be disappointed.”

This is a crucial point. What we see in (212b) is evidence that the entire  $\psi$ -argument is free to serve as the subject of the matrix clause in a biclausal raising construction, but only if its movement to matrix subject position is string-vacuous. Although structural locality has presumably been disrupted by such movement, linear adjacency has not been disrupted, and the idiomatic interpretation is available.

Yet when the subject raises to the specifier of the matrix TP and the embedded clause then extraposes to the right of the raised subject, a different pattern emerges. If the embedded predicate is part of a  $\psi$ -idiom, possessor ascension is obligatory as in (213b), as raising of the entire subject and subsequent clause extraposition disrupts locality between the  $\psi$ -predicate and its  $\psi$ -argument, as in (214b). If the embedded predicate is non-idiomatic, possessor ascension is optional; the grammaticality of (214a) shows that raising the entire subject typically poses no problem.

## (213) POSSESSOR ASCENSION, RAISING, AND CLAUSE EXTRAPOSITION:

- a. Ng                *mi/lemolem*     $t_j$  [a kebui                ]<sub>i</sub> [el **moalech** [a  
                          3PL.–HUM= PAST.continue [D betel.pepper ] [L wither [D  
                          ll-el                                 $t_i$  ]]<sub>j</sub>  
                          leaves-3PL.–HUMP          ]]  
                          “The betel pepper leaves continued to wither.”
- b. Te                *mi/lemolem*     $t_j$  [a del-rir                ]<sub>i</sub> [el **moalech**  
                          3PL.+HUM= PAST.continue [D mothers-3PL.+HUMP ] [L wither  
                          [a **reng-rir**                         $t_i$  ]]<sub>j</sub>.  
                          [D hearts-3PL.+HUMP          ]]  
                          “Their mothers continued to be disappointed.”

(214) RAISING OF ENTIRE EMBEDDED SUBJECT AND CLAUSE EXTRAPOSITION:

- a. Ng *millemolem*  $t_j$  [a ll-el [a kebui ]]<sub>i</sub>  
 3PL.–HUM= PAST.continue [D leaves-3PL.–HUMP [D betel.pepper ]]  
 [el **moalech**  $t_i$  ]<sub>j</sub>  
 [L wither ]  
 “The betel pepper leaves continued to wither.”
- b. \*Ng/\*Te *millemolem*  $t_j$  [a **reng-rir** [a  
 3PL.±HUM= PAST.continue [D hearts-3PL.+HUMP [D  
 del-rir ]]<sub>i</sub> [el **moalech**  $t_i$  ]<sub>j</sub>.  
 mothers-3PL.+HUMP ] [L wither ]  
 (“Their mothers continued to be disappointed.”)

The contrast in grammaticality that we find between (212b) with no extraposition and (214b) with extraposition can be explained by two of the locality restrictions on  $\psi$ -idioms (the structure-based constraint in (185) and the string-based constraint in (187)), but not the selection-based constraint in (186). Whenever extraposition disrupts the locality between the  $\psi$ -predicate and its  $\psi$ -argument, the sentence is ungrammatical on the idiomatic reading.

#### 4.2.2.4 Raising-to-Object

As we saw in Chap. 3, Sect. 3.3, certain raising-to-object verbs like *meruul* ‘‘cause; make,’’ *mengiil* ‘‘expect,’’ and *omdasu* ‘‘think; consider’’ can select either non-finite or finite clauses as complements, as shown in (215) and (216), respectively.

(215) NON-FINITE CLAUSE COMPLEMENT:

- A Rehina a **ulemdasu er ngii**<sub>i</sub> [el kmal klou el dil  $t_i$  [e le  
 D Rehina TOP think.PAST ACC herself [L very big L girl [because  
 ng mle oubail er a dores ]].  
 3SG= AUX.PAST wear ACC D dress ]].

‘‘Rehina thought herself to be a big girl because she was wearing a dress.’’

[KK 2]

## (216) FINITE CLAUSE COMPLEMENT:

A Juda er se er a l-es-ang, e ng **ulemdasu** [e  
 D Judah P that.(time) P D 3S.IRR-see.PF-3SG then 3SG= think.PAST [L  
 kmo **ng** oteruul el redil *pro* [e le ng di/kedek-ii  
 C 3SG= prostitute L woman she [because 3SG= PAST.cover.PF-3SGO  
 a med-al ]].  
 D face-3SGP ]]

“When Judah saw her, he thought that she was a prostitute, because she had her face covered.”  
 [Chedaol Biblia, Genesis 38:15]

Whenever these verbs are followed by a finite embedded clause, the subject of the embedded clause triggers agreement on the embedded predicate. But when the embedded clause is non-finite, what would have been the subject of the embedded clause appears immediately after the matrix predicate and receives Accusative Case. On the movement analysis of raising-to-object, this word order and case pattern results from movement of the DP from the embedded non-finite clause’s Spec TP to become the direct object in the matrix  $\nu$ P, getting Accusative Case in the matrix clause.<sup>11</sup>

<sup>11</sup>In the Minimalist syntactic framework I am assuming currently, the traditional raising-to-object analysis (Rosenbaum 1967) has been recast as movement of the embedded subject to the specifier of a projection between  $\nu$ P and VP, such as AspP or AgrOP (i.a., Koizumi 1993, 1995; Runner 1995, 1998; Lasnik 1995).

For several decades, the raising-to-object construction was reanalyzed and called the exceptional-case-marking (ECM) construction. On this analysis, the ECM verb crucially selects a non-finite TP complement (and not a CP complement), and licenses the embedded subject with Accusative Case. A Minimalist version of this analysis might appeal to transitive  $\nu$  to license the subject of the non-finite TP with structural Accusative Case via Agree. However, this analysis depends on SVO word order. Since the derived objects of Palauan ECM verbs appear between the ECM verb and the complement clause—rather than in a (rightward-branching) subject position at the end of the complement clause—it *appears* that actual movement has extracted the subject DP out of the embedded clause, likely with extraposition of the embedded clause applying later in the derivation. This set of facts renders an ECM analysis for the Palauan cases rather dubious, and in a very interesting way. The result is in line with arguments that have been made against the ECM analysis in favor of an overt movement analysis (Postal 1974; Johnson 1991; Runner 1995), such as those based on the allegedly embedded subject’s interpolation with material that is clearly in the matrix clause, such as (ii).

(ii) She *made* Jerry<sub>i</sub> *out* [ $t_i$  to be famous].

[based on Runner 2006: 196, ex. 6]

It seems clear that the relevant predicates in Palauan host derived objects that have moved overtly, but it is not clear to me that this movement is necessarily into the matrix clause. I do not understand the nuances of the construction well enough at this time to commit to a view on what the matrix landing site for these derived objects is.

In Palauan, the sole argument of an embedded intransitive predicate appears to move leftward to become the direct object of the matrix predicate.<sup>12</sup> But if this DP is a  $\psi$ -argument, we find that only its possessor can occupy the position of direct object in the matrix clause, as in (217a). If the entire  $\psi$ -argument raises to object position, the result is ungrammatical on the idiomatic reading, as shown in (217b).

(217) RAISING-TO-OBJECT CAN ONLY TARGET POSSESSOR OF  $\psi$ -ARGUMENT:

- a. A Rubak a rirel-lii [a Farao ]<sub>i</sub> [el mo  
 D Lord TOP PAST.make-3SGO [D pharaoh ] [L become  
**me-decherecher** a **reng-ul** *t<sub>i</sub>* ].  
 INTR-hard D heart-3SGP ]  
 “The Lord made the king stubborn.” [Chedaol Biblia, Exodus 14:8]
- b. \*A Rubak a rirel-lii [a **reng-ul** [a Farao ]]<sub>i</sub>  
 D Lord TOP PAST.make-3SGO [D heart-3SGP [D pharaoh ]]  
 [el mo **me-decherecher** *t<sub>i</sub>* ].  
 [L become INTR-hard ]  
 (“The Lord made the king stubborn.”)

This apparent restriction has nothing to do with the embedded predicate *medecherecher*, as its (complete) argument DP can participate in a raising-to-object construction if it is not a  $\psi$ -argument. Note the contrast between (217) and (218) below.

- (218) Ng sebec-em el ngosu-ir a Dios el merek-ii a  
 3SG possibility-2SGP L help.PF-3SGO D God L stretch.out-3SGO D  
 eanged e rul-lii *pro*<sub>i</sub> [el kuk mo **me-decherecher** *t<sub>i</sub>*  
 sky and make.PF-3SGO it [L rather become INTR-hard  
 er a b/tanget el deel ]?  
 P D RES.polish L steel ]  
 “Can you help God stretch out the sky and make it as hard as polished  
 metal?” [Chedaol Biblia, Job 37:18]

Once again, the ungrammaticality of (217b) appears to be attributable to the disruption of locality between idiomatic chunks. Instances in which displacement of a  $\psi$ -argument crashes the derivation are thus not limited to (base-generated) A' dependencies, but can also be found in constructions involving overt, non-string-vacuous A-movement. The picture that emerges is that A-movement is generally

<sup>12</sup>It is highly likely that the movement is actually rightward, followed by extraposition of the embedded clause. However, I have not yet elicited the relevant field data to be sure of this. For present purposes, it doesn't matter what the exact analysis is; what matters is the resulting word order, and what meanings are or are not possible with this order.

**Table 4.3** A-movement targeting  $\psi$ -arguments

Type of A-movement of $\psi$ -argument	Ex. #	Preserves structural locality?	L-select relation holds?	Maintains string adjacency?	Yields idiomatic reading?
Subject movement: (string-vacuous)	(201)	No	<i>Yes</i>	<i>Yes</i>	<b><i>Yes</i></b>
...past a PP argument	(204)	<i>No</i>	Yes	<i>No</i>	<b><i>No</i></b>
Raising-to-subject: (string-vacuous)	(212)	No	<i>Yes</i>	<i>Yes</i>	<b><i>Yes</i></b>
...past a PP modifier	(208)	<i>No</i>	Yes	<i>No</i>	<b><i>No</i></b>
...with subsequent clause extraposition	(214)	<i>No</i>	Yes	<i>No</i>	<b><i>No</i></b>
Raising-to-object	(217)	<i>No</i>	Yes	<i>No</i>	<b><i>No</i></b>

permitted, and if we assume that it applies uniformly, even in sentences containing idioms, the availability of the idiomatic reading correlates with the instances in which string adjacency between the idiom chunks is not disrupted. The results are summarized in Table 4.3.

As is clear from the table, the structural locality constraint in (185) is too strong to account for the A-movement data; it predicts that movement to higher positions will block the idiomatic reading of the  $\psi$ -expression, but we can see that that is not the case when the movement is string-vacuous, i.e., in (201) and (212). Similarly, the table shows us that the lexical selection constraint in (186) is too weak; it predicts that the idiomatic reading will be available in all cases where the  $\psi$ -predicate has selected its  $\psi$ -argument, but we see that that is not the case whenever subsequent movement disrupts the string adjacency between the two, as in (204), (208), (214), and (217). Only the string locality constraint in (187) makes the correct predictions for the A-movement data.

### 4.2.3 $\Psi$ -Idioms and Coordination

Data involving coordinated  $\psi$ -arguments is examined below. While the data appears to be compatible with the predictions of the string locality constraint in (187), it serves as additional strong evidence against both the structural locality constraint in (185) and the lexical selection constraint in (186). There is no movement of  $\psi$ -arguments in the data below; they remain in their base-generated positions,

introduced into the syntax to saturate the argument position of the  $\psi$ -predicate, via selection. But what we see is a discrepancy in which levels of the hierarchical structure may be conjoined without destroying the idiomatic reading of the  $\psi$ -expression. The pattern is such that the possessor of a  $\psi$ -argument may be a conjoined DP as in (219a), but it is impossible to conjoin two full  $\psi$ -argument DPs in the complement to a  $\psi$ -predicate, as indicated in (219b).

(219)  $\Psi$ -ARGUMENTS CANNOT BE COORDINATED, BUT THEIR POSSESSORS CAN:

- a. Me ng mla er a bli-l a ongdibel el mesaod a tekoi e  
 So 3SG= was P D house-3SGP D meeting L explain D issues and  
 melasem el **meledaes** [a **reng-rir** [a re-chad er a  
 try L clarify.IMPF [D hearts-3PL.+HUMP [D PL-person P D  
 Judea ] me [a re-chad er a Gris ]].  
 Judea ] and [D PL-person P D Greece ]]  
 “He held discussions in the synagogue ..., trying to convince both Jews  
 and Greeks.” [Chedaol Biblia, Acts 18:4]
- b. \*Ng **mi/ledaes** [[a **reng-rir** a re-chad er a  
 3SG= PAST.clarify.IMPF [[D hearts-3PL.+HUMP D PL-person P D  
 Judea ] me [a **reng-rir** a re-chad er a Gris ]].  
 Judea ] and [D hearts-3PL.+HUMP D PL-person P D Greece ]]  
 (“He convinced the Jews and the Greeks.”)

Note that there is no general problem with coordinating DPs in direct object position. For instance, consider (220).

(220) ORDINARY DP ARGUMENTS CAN BE COORDINATED:

- A re-merreder a ulemekedong [er [a re-prist ] me [a re-chad  
 D PL-leader TOP PAST.call.IMPF [ACC [D PL-priest ] and [D PL-person  
 er a olai ]].  
 P D magic ]]  
 “The people called the priests and the magicians.”  
 [Chedaol Biblia, 1 Samuel 6:2]

The conjoined DP in possessor position in (219a) poses no problem, since the head of the  $\psi$ -predicate and the head of the  $\psi$ -argument are in a local relation, regardless of whether locality is defined on structures, on strings, or via selectional relations. But the conjoined DP in (219b) is the entire direct object rather than just its possessor, and I know of no clear evidence for movement of the conjoined DP constituent out of its base-position (i.e., complement to V).

On an analysis based on the structural locality constraint in (185), it seems to me that the contrast in (219) would be unexpected. All of the subcomponents of the  $\psi$ -idiom *meledaes er a rengul* “explain (to sb.)” (lit. “clarify (sb.)’s heart”) are

arguably within the  $vP$  (and possibly even within the  $\sqrt{P}$ , if we assume category-neutral root theory) in both (219a) and (219b). And furthermore, the conjoined DP in (219b) is selected by the  $\psi$ -argument as its complement, and as such should be grammatical if the lexical selection constraint in (186) were to hold.

An analysis based on the string locality constraint captures the pattern in (219) by imposing locality as a conditional constraint on  $\psi$ -arguments: a property of each  $\psi$ -argument is that it must immediately follow its selecting  $\psi$ -predicate. Because the constraint is on  $\psi$ -arguments, it makes certain predictions. First, we predict that it should be possible to conjoin a  $\psi$ - $vP$  and a non-idiomatic  $vP$  as long as the predicates share a subject. Second, we predict that it should be possible to conjoin two  $\psi$ - $vPs$  as long as they each have their own  $\psi$ -argument. Both predictions are borne out.<sup>13</sup>

The examples in (221) show that it is possible to conjoin an idiomatic  $\psi$ -predicate XP with a non-idiomatic predicate XP as long as the locality restriction on idiom chunks is satisfied within the  $\psi$ -predicate XP. Possessor ascension to subject is once again obligatory in such cases: the subject must be understood to be the possessor of the  $\psi$ -argument in the  $\psi$ -predicate XP and the subject of the non-idiomatic predicate XP (i.e., derived by across-the-board movement).

- (221) a. Ng [omes er a ngelek-el  $t_1$ ] e [kmal **mekngit** a **reng-ul**  
 3SG [see.IMPF ACC D child-3SGP ] and [very bad D heart-3SGP  
 $t_1$ ] *pro*<sub>i</sub>.  
 ] he  
 “He is looking his daughter and is very sad.” [CB 6]

<sup>13</sup>An anonymous reviewer wonders whether it is possible to conjoin two transitive  $\psi$ -predicates that have a shared direct object. Such a structure would be a correlate of English “right-node-raising” constructions like *He cooked and ate the sausages*. If so, the string locality constraint might predict that a structure like  $[[V_1 \text{ and } V_2] \text{ DP}]$  would be grammatical in a context where  $V_2 + \text{DP}$  is interpreted as a  $\psi$ -idiom, while  $V_1 + \text{DP}$  receives a non-idiomatic interpretation. I’m honestly not sure whether this is possible in Palauan with transitive verbs, but I think a similar prediction can be probed with intransitive adjectives/verbs and across-the-board subject movement. One such example is given in (iii) below.

- (iii) Kau, el [[me-decherecher] e [diak le-mesmechokl ]] a reng-um el chad, ...  
 You, L [[INTR-hard ] and [not 3S.IRR-ordered.PASS ]] D heart-2SGP L person, ...  
 “But you have a hard and stubborn heart, and so ...” (lit. “You, who are a person whose heart is hard and unordered, ...”) [Chedaol Biblia, Romans 2:5]

The conjoined predicates in (iii) are both predicated of the noun *rengum* “your heart.” If the Palauan sentence is an accurate translation of the English, then it would appear that the prediction is borne out: *medecherecher* “hard” is interpreted literally and *diak lemesmechokl* “not ordered” is interpreted idiomatically, which on the present line of analysis is due to its adjacency to a *rengum* “your heart,” where it takes on the meaning of “stubborn.”



- b. Ng [ti/uchakl er a rael t<sub>i</sub> [el mo omes er a laion el  
 3SG= [PAST.detour P D road [L go see.IMPF ACC D lion L  
 l-ułek-od-ir ]], e [mlo **mechas** a  
 3S.IRR-PAST.CAU-die-3SGO ]] and [PAST.become INTR-char D  
**reng-ul** t<sub>i</sub> er a le-betik a betok el bee el ketitech er  
 heart-3SGP P D 3S.IRR-find D many L bees L crowded P  
 ngii ] *pro*.  
 there ] he

“He left the road to look at the lion he had killed, and he was surprised to find a swarm of bees.”  
 [*Chedaol Biblia*, Judges 14:8]

Next, (222) shows that it is possible to conjoin two  $\psi$ -vPs, as long as they each have their own  $\psi$ -arguments that are adjacent to their  $\psi$ -predicates.

- (222) A bltk-il a reng-um a [rirell-ak el kmal mo  
 D affection-3SGP D heart-2SGP TOP [PAST.cause.PF-1SGO L very become  
 dmeu a reng-uk ] e [silisich-ii a reng-uk ]!  
 happy D heart-1SGP ] and [PAST.strengthen.PF-3SGO D heart1SGP ]  
 “Your love has brought me great joy and much encouragement!” (lit. “Your heart’s affection has made me very happy-hearted and has strengthened my heart.”)  
 [*Chedaol Biblia*, Philemon 1:7]

In sum, it appears that coordination facts in (219) through (222) offer support for the string-based locality constraint in (187), but are difficult to reconcile with the structurally-defined locality constraint in (185) and the lexical selection constraint in (186). In the next section, I consider the implications of adopting this perhaps unconventional type of analysis of the locality restriction on idiom chunks.

### 4.3 Implications of the Post-syntactic Analysis

By now, we have seen that a variety of syntactic configurations—both base-generated and derived by movement—are ungrammatical if an idiomatic  $\psi$ -predicate does not appear in a position that immediately precedes the  $\psi$ -argument. And furthermore, if  $\psi$ -argument DPs are core arguments of their predicates (as the object agreement and accusative case-marking data in Sect. 4.1.2 seems to indicate), then appealing to a phrase structural analysis of the locality constraint on  $\psi$ -idioms along the lines of something like Koopman and Sportiche’s (1991) idiom locality condition in (181) or the structural locality constraint on  $\psi$ -idioms, both repeated below, fails to account for the coordination data in Sect. 4.2.3.

- (181) IDIOM LOCALITY CONDITION: If  $X$  is the minimal constituent containing all the idiomatic material, the head of  $X$  is part of the idiom.  
 [Koopman and Sportiche 1991: 224, ex. 10]

- (185) STRUCTURAL LOCALITY CONSTRAINT ON  $\Psi$ -IDIOMS: The  $\sqrt{\text{ROOT}}$  of the  $\psi$ -argument DP (e.g.,  $\sqrt{\text{RENG}}$ ) must be dominated by the maximal projection of the  $\psi$ -predicate (i.e.,  $\nu\text{P}$ ,  $a\text{P}$ , etc.) when it is sent to the LF and PF interfaces.

The problem with the structural constraints in (181) and (185) is that they are simultaneously too weak and too strong. They are too weak because they predict that coordination of  $\psi$ -argument DPs, e.g., in (219b), should be grammatical, contrary to fact. And they are too strong because they rule out the possibility of string-vacuous raising of  $\psi$ -arguments that disrupts structural locality, but we saw that such movement is permitted as long as linear adjacency is maintained, e.g., in (201) and (212).

The selection-based constraint in (186), repeated below, improves upon the structurally-defined constraints on (181) and (185) by assigning the idiomatic interpretation through selection of the  $\psi$ -argument by the  $\psi$ -predicate, which leaves it free to raise to structurally higher subject positions.

- (186) LEXICAL SELECTION CONSTRAINT ON  $\psi$ -IDIOMS: The  $\psi$ -predicate must I-select the  $\psi$ -argument DP.

This type of relaxation predicts the string-vacuous subject movement cases to be grammatical, but it runs into trouble anywhere the movement is not string-vacuous, such as when subjects raise past argument PPs as in (204), past higher aspectual modifiers as in (208), or to the landing site in raising-to-object constructions as in (217). It also does not predict that an otherwise string-vacuous raising-to-subject movement which would ordinarily be permitted becomes ungrammatical when the embedded clause containing the  $\psi$ -predicate is subsequently extraposed, as in (214) (cf. (212) for the variant without extraposition).

The alternative proposed in this chapter lies in assuming that the appropriate stage of the derivation at which to apply the relevant locality restriction on idiom chunks is after a linearization algorithm has applied (possibly something along the lines of what has been proposed for English by Fox and Pesetsky 2005). The linearization algorithm might specify whether heads, complements, and specifiers branch to the left or to the right, which instance(s) of a moved element should be pronounced, and so on. On this view, locality between idiom chunks is checked after Spell Out, when syntactic structure is linearized and lexical material is inserted, along the lines of Embick and Noyer's (2001) Late Linearization Hypothesis, given in (223) (contra Kayne 1994; cf. Sproat 1985).

- (223) THE LATE LINEARIZATION HYPOTHESIS: The elements of a phrase marker are linearized at Vocabulary Insertion. [Embick and Noyer 2001: 562, ex. 8]

The resulting linearized string is the domain of application of the string locality constraint on  $\psi$ -Idioms that I proposed in (187), repeated below.

- (187) STRING LOCALITY CONSTRAINT ON  $\psi$ -IDIOMS: The  $\sqrt{\text{ROOT}}$  of a  $\psi$ -argument (e.g.,  $\sqrt{\text{RENG}}$ ) must be preceded by the  $\sqrt{\text{ROOT}}$  of the  $\psi$ -predicate in the linearized string of morphemes (i.e., in the post-syntactic grammar), and no other  $\sqrt{\text{ROOT}}$  may intervene between the two.

To illustrate the process of how the constraint in (187) applies, let's go through the derivation of sentence (212b), repeated below.

- (212b) Ng/Te            mi/lemolem    el **moalech** a **reng-rir**            a  
 3PL. $\pm$ HUM= PAST.continue L wither    D hearts-3PL.+HUMP D  
 del-rir.  
 mothers-3PL.+HUMP  
 “Their mothers continued to be disappointed.”

In (212b), either the  $\psi$ -argument or just its possessor may be treated as the subject of the matrix clause; hence the optionality between *ng* and *te* as subject agreement markers. I proceed along the route where the entire  $\psi$ -argument raises to become the subject of the matrix clause, with the associated subject agreement clitic *ng* appearing clause-initially. I assume the Late Linearization Hypothesis in the discussion below, but as far as I can tell, the string locality constraint is compatible with a morphological framework in which lexical material is inserted earlier—even at initial merge (as is assumed in Chomsky 2000, 2001, et seq.)—as long as linearization still occurs after Spell Out, i.e., after the crucial movements discussed here. For (212b), the input to Spell Out might look something like Fig. 4.1.<sup>14</sup>

After Spell Out, I assume that the phrase structure in Fig. 4.1 is modified with the addition of two types of dissociated morpheme. First, agreement in Palauan is always realized morphophonologically as the exponent of a morpheme distinct from the head that has acquired the  $\phi$ -features from the DP it has agreed with, such as D, T or *v*. To capture this, a dissociated Agr morpheme may be inserted post-syntactically, adjoined to D, T, or *v* (see Marantz 1992, 2000; Embick and Noyer 2007: 12–13). This is the stance I take below. Second, I assumed in Chap. 1, Sect. 1.2.2.2 that the linker morpheme *el* has no syntactic realization but might be analyzed either

<sup>14</sup>I have included lexical material in the phrase structure in grey: this is purely for expositional clarity. I have also omitted the Asp<sub>v</sub>P and vP layers (which of course should appear between TP and VP) in Figs. 4.1 and 4.2, for reasons of space and readability. I introduce vP into the discussion surrounding Figs. 4.4 and 4.5 when I consider category-neutral root theory.

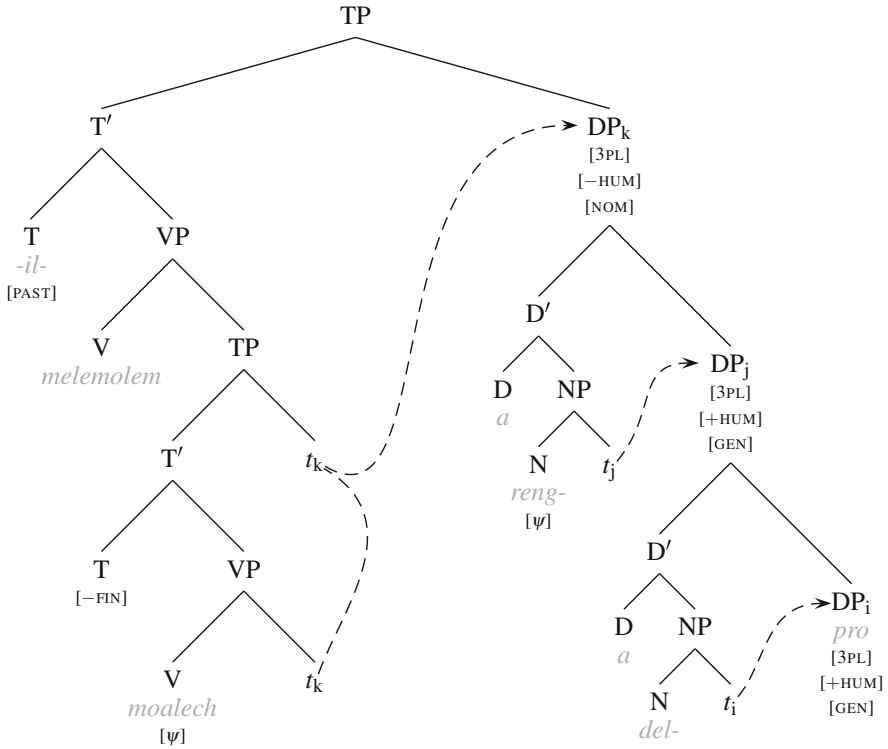


Fig. 4.1 Input to Spell Out (assuming late insertion of lexical material)

as an inflectional morpheme (on a theory in which morphophonological material is inserted along with syntactic heads at initial merge) or as the exponent of a dissociated morpheme inserted post-syntactically. I take the latter view below, left-adjoining a morpheme *L* to the embedded TP, which will be spelled out as *el*.

Next, I assume that affixes can be lowered to adjoin to the heads of their complements,<sup>15</sup> following Embick and Noyer (2001). In the current structure, the past tense infix *-il-* lowers to adjoin to the V head. The operation might look something like (224).

(224) LOWERING OF  $X^0$  TO  $Y^0$ :

$$[XP X^0 \dots [YP \dots Y^0 \dots]] \rightarrow [XP \dots [YP \dots [Y^0 Y^0 + X^0] \dots]]$$

[Embick and Noyer 2001: 561, ex. 6]

On the present set of assumptions, lexical material has not been inserted at this point of the derivation. Given that only tense nodes (and possibly agreement nodes)

<sup>15</sup>This is also the case for tense morphemes on verbs in English (Embick and Noyer 2001), such as *-ed* [PAST] and *-s* [PRES, 3SG].

appear to lower in Palauan, and these are the same types of morphemes that lower in other languages, such as English, I will leave the task of motivating these lowering operations aside. The lowering operation is not crucial to the analysis.<sup>16</sup> The structure at this point should look like Fig. 4.2.

Once the tree in Fig. 4.2 is linearized, the result might be something like the linearized string in Fig. 4.3, but perhaps with the addition of prosodic phrase boundaries, which I have omitted (i.e., Nespore and Vogel 1986, 2007; Selkirk 1986; Hayes 1989; Truckenbrodt 1999). I assume that in the linearized string of morphemes, the features according to which the morphemes are spelled out morphophonologically are still present and visible to the derivation (including category features); there is simply no hierarchical syntactic structure. Since category labels are, themselves, simply features, it seems quite natural to me that they should continue to be present after Vocabulary Insertion and linearization. Vocabulary Insertion adds morphophonological content to morphemes (bundles of morphosyntactic

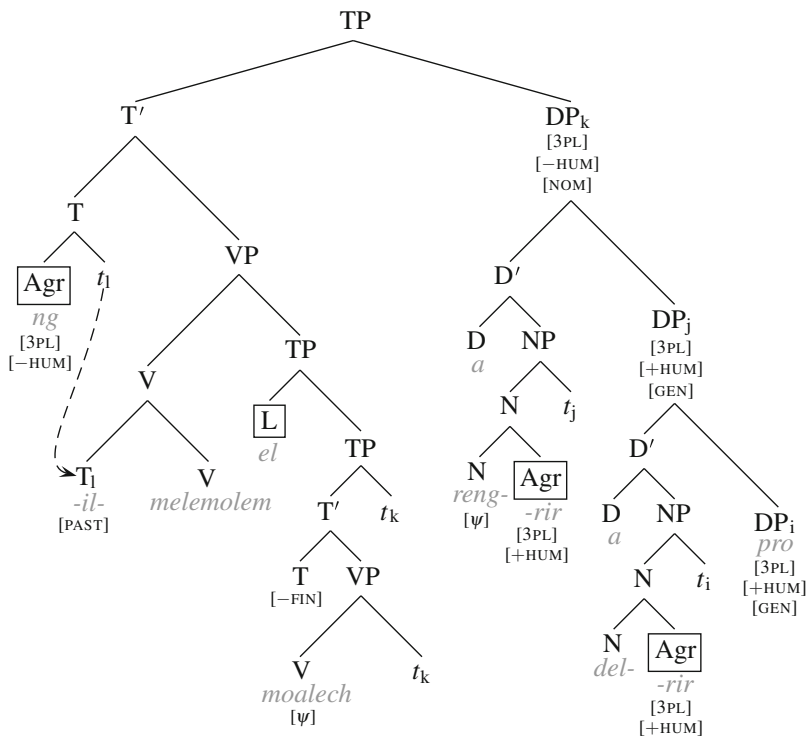


Fig. 4.2 Lowering of T(ense), and insertion of dissociated morphemes: L(inker) and Agr(eement)

<sup>16</sup>The same effects might be achieved using Grimshaw's notion of Extended Projection, which allows feature sharing among heads that form a single extended projection (see Grimshaw 2005: Chap. 1 for details).

Agr	T	V	L	V	D	N	Agr	D	N	Agr	D
ng	-il-	melemolem	el	moalech	a	reng-	-rir	a	del-	-rir	<i>pro</i>
				[ $\psi$ ]		[ $\psi$ ]					

**Fig. 4.3** Linearized string (lexical head theory)

features) and linearization imposes an ordering relation among Vocabulary Items. Neither process deletes the morphosyntactic features.

The string locality constraint in (187) must apply to a string like that in Fig. 4.3. The relevant parts of the string are the  $\psi$ -predicate *moalech* “with(er)” and (the head N of) its  $\psi$ -argument *reng* “heart,” both marked with [ $\psi$ ].<sup>17</sup> In a morphological theory where lexical items are specified for their category features in the lexicon before they enter the syntax, the labels of *moalech* and *reng* are V and N, respectively.

At the beginning of this chapter, I mentioned that I had two goals. The first was the descriptive goal of investigating the syntax of Palauan  $\psi$ -expressions, capturing the patterns in the data that have not yet been analyzed in the literature. The second was the theoretical goal of showing how Palauan  $\psi$ -expressions can help inform our understanding of the relationship between syntax and morphology. As long as we adopt the assumption that linearization is post-syntactic, it should now be clear that an account of  $\psi$ -expressions is possible on a lexicalist theory of morphology, where words are inserted into the syntax directly from the lexicon at initial Merge. One need only exchange the term  $\sqrt{\text{ROOT}}$  for *lexical head* in the definition of the string locality constraint in (187), as in (225).

- (225) (LEXICALIST) STRING LOCALITY CONSTRAINT ON  $\psi$ -IDIOMS: The lexical head of a  $\psi$ -argument (e.g., N) must be preceded by the lexical head of the  $\psi$ -predicate (e.g., V, A, or N) in the linearized string of morphemes (i.e., in the post-syntactic grammar), and no other lexical head may intervene between the two.

For the remainder of this chapter, I nevertheless explore the consequences of adopting the theory of category-neutral roots. In taking the string locality constraint in (187) literally, and defining the locality constraint as a constraint on category-neutral roots, I show that certain predictions are made—and borne out—that at best must be stipulated on the lexicalist analysis, and at worst are merely accidental. On a theory assuming category-neutrality of roots, the stems of nouns, verbs, and adjectives have no lexical category, but are later category-defined by the functional heads

<sup>17</sup>The [ $\psi$ ] notation is introduced merely to help identify the relevant portions of the  $\psi$ -expression. It is not intended to be a feature or have any theoretical import.

*n*, *v*, and *a*. With a theory of this sort, the input to the linearization algorithm might look more like that in Fig. 4.4, and the linearized string would then be represented as in Fig. 4.5.

On the category-neutral root theoretic analysis, the string locality constraint on  $\psi$ -idioms is satisfied whenever no  $\sqrt{\text{ROOT}}$  intervenes between the  $\psi$ -predicate's  $\sqrt{\text{ROOT}}$  and the  $\psi$ -argument's  $\sqrt{\text{ROOT}}$  (annotated in both Figs. 4.4 and 4.5 with [ $\psi$ ]). It should make no difference which *v* merges with the  $\psi$ -predicate's  $\sqrt{\text{ROOT}}$  to form a verb (resulting in transitive, passive, unaccusative, or stative  $\psi$ -expressions), or even if the  $\sqrt{\text{ROOT}}$  merges with other category-defining heads, like *n* or *a*.

Below, I explore predictions made by a theory in which nouns, verbs, and adjectives are derived syntactically from category-neutral roots, drawing on evidence from the morphophonological and morphosyntactic properties of the idiom chunks in idiomatic  $\psi$ -expressions. Data illustrating transitivity alternations, nominalizations, and compounding suggests that the locality restriction on Palauan  $\psi$ -idiom chunks can be understood as resulting from local combinations of two roots, rather than as a purely saturating relation between a predicate and argument, as the data

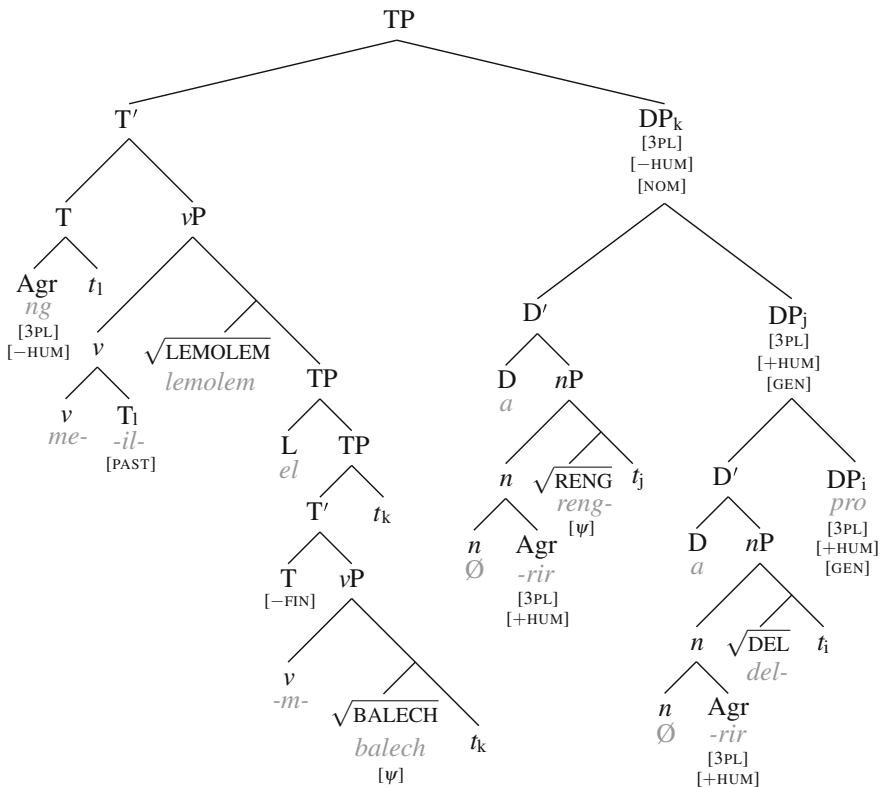


Fig. 4.4 Input to linearization algorithm (category-neutral root theory)

Agr	<i>v</i>	T		L	<i>v</i>		D	<i>n</i>	Agr		D	<i>n</i>	Agr		D
ng	me-	-il-	lemolem	el	-m-	balech	a	∅	-rir	reng-	a	∅	-rir	del-	<i>pro</i>
						[ <i>ψ</i> ]				[ <i>ψ</i> ]					

Fig. 4.5 Linearized string (category-neutral root theory)

in Sect. 4.2 might appear to suggest. The conclusion is that although a predicate–argument structure is one possible way to create the necessary local configuration between the idiom chunks, it is not the only way to achieve the relevant locality between them.

### 4.3.1 Transitivity Alternations

Richards (2001: 184), Harley (2002: 41), and Bruening (2010: 537) provide examples of pairs of English idioms that seem to receive the same interpretations despite containing different verbs, such as those in (226) and (227) (cf. Larson 1988: 341).

- (226) a. Alice **gives hell** to anyone who uses her training wheels.  
 b. Oscar will **give the boot** to any employee that shows up late.  
 c. The Count **gives the creeps** to everyone. [Harley 2002: 41, ex. 19b–d]
- (227) a. I **caught/got hell** from Alice.  
 b. Peter **got the boot**.  
 c. Geez, you **get the creeps** just looking at him. [Harley 2002: 41, ex. 20b–d]

Based on examples like (226) and (227), Richards, Harley, and Bruening argue for an analysis in which *get* is essentially treated as an unaccusative variant of *give*. In other words, *get* and *give* are members of a transitivity alternation and are related derivationally, just as transitive *break* and unaccusative *break* are. They consist of a common root (which Bruening analyzes simply as  $\sqrt{G-}$ ), which combines with different instances of *v*, either transitive *v* for *give* or unaccusative *v* for *get*.

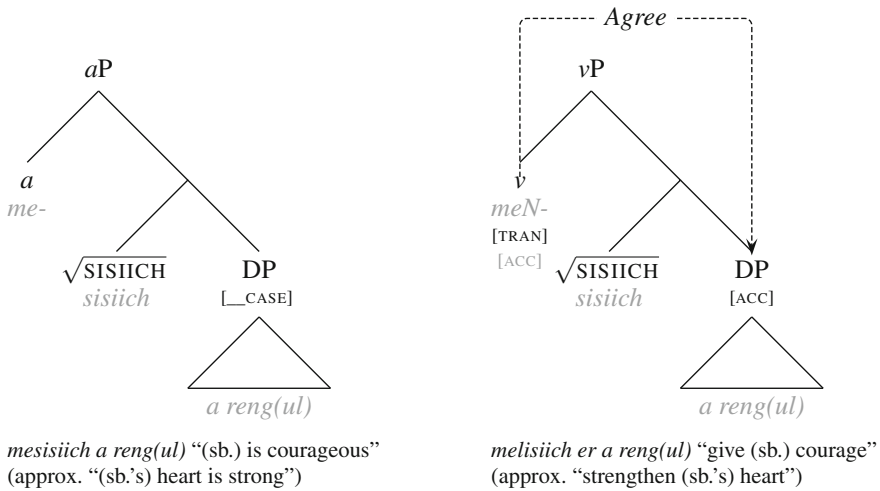
In Palauan, there are a number of transitivity alternations involving *ψ*-idioms, and they are much more obviously related morphologically than are English *get* and *give*. For instance, consider (228) and (229) below.



- (228) a. L-ak bo me-dakt er a re-cherrou-iu; di blechoel  
 3S.IRR-NEG AUX.FUT.IRR INTR-afraid P D PL-enemy-2PLP just always  
 el **me-sisiich** a **reng-miu**.  
 L INTR-strong D hearts-2PLP  
 “Don’t be afraid of your enemies; always be courageous.” (approx.  
 “...always be strong-hearted.”) [*Chedaol Biblia*, Philippians 1:28]
- b. A Elilai a kmal millasem el **melisiich** er a **reng-ul**.  
 D Elilai TOP very PAST.try L strengthen.IMPF ACC D heart-3SG  
 “Elilai was really trying to be courageous.” (approx. “...trying to  
 strengthen his heart.”) [EI 27]
- (229) a. Ng mo **me-tirem** a **reng-um** er a Ekipten, el di ua  
 3SG= AUX.FUT INTR-chip D heart-2SGP P D Egypt L just like  
 se er a **le-me-tirem** a **reng-um** er a Asiria.  
 that.time P D 3S.IRR-INTR-chip D heart-2SGP P D Assyria  
 “You will be disappointed by Egypt, just as you were by Assyria.”  
 (approx. “Your heart will be chipped by Egypt, just like the time when it  
 was chipped by Assyria.”) [*Chedaol Biblia*, Jeremiah 2:36]
- b. Kau ng blak a reng-um el **merirem** er a **reng-uk** el ua  
 you 3SG= intent D heart-2SGP L chip.IMPF ACC D heart-1SGP L like  
 a omoachel el mo medirt er a blsech-el a kleald?  
 D river L become dry P D time-3SGP D heat  
 “Do you intend to disappoint me like a stream that goes dry in the sum-  
 mer?” (approx. “...to chip my heart like...”) [*Chedaol Biblia*, Jeremiah 15:18]

All four sentences in (228) and (229) contain  $\psi$ -idioms, but while the (a) sentences are intransitive, with the  $\psi$ -arguments serving as subjects, the (b) sentences are transitive, with the  $\psi$ -arguments serving as direct objects marked with the accusative case marker *er* (as they are singular and specific; see (115) in Chap. 3). Furthermore, the  $\psi$ -predicate *mesisiich*<sup>18</sup> “strong” in (228a) is adjectival, while that in (229), *metirem* “chipped,” is a verbal passive (the differences between classes of

<sup>18</sup>An anonymous reviewer asks if *mesisiich* is reduplicative, and if so, what the reduplication means. The answer to the first question is yes, *mesisiich* is reduplicative. It is less clear what the reduplication means. The root of *mesisiich* is  $\sqrt{\text{SIICH}}$ , which on its own means “success; favorable circumstances” (Josephs 1990: 306). In its non-reduplicated form, it appears in the adjective *sniich* “enthusiastic; motivated to do things in the extreme; dark in color; (food) well-cooked or well-done; (nut, screw) tight.” It is an open question whether the reduplicative portion of *mesisiich* is lexicalized along with  $\sqrt{\text{SIICH}}$  as a separate root  $\sqrt{\text{SISIICH}}$ , or whether it syntactically/morphologically complex. For no other reason than to simplify the discussion, I tentatively represent the root that corresponds to the “strength” interpretation as  $\sqrt{\text{SISIICH}}$ , with the understanding that it is very likely derivationally related to  $\sqrt{\text{SIICH}}$ , in some way.



**Fig. 4.6** Intransitive and transitive predicates formed from  $\sqrt{\text{SISIICH}}$

intransitive predicates are explored in more detail in Chap. 5). But the transitive variants of both are verbs.

In the syntactic framework I adopt in Chap. 1 and elaborate in Chaps. 2 and 3, the external argument of a transitive verb is introduced by a transitive  $v$  head, which also licenses the internal argument with structural Accusative Case. Given alternations between transitive and intransitive variants of  $\psi$ -idioms with what appear to be similar structures like those in (228) and (229), it is natural to wonder whether a  $\psi$ -predicate and its  $\psi$ -argument form a constituent before a transitive  $v$  merges. Following Richards’s (2001), Harley’s (2002), and Bruening’s (2010) analyses of English transitivity alternations in idiomatic expressions, I propose that the answer to this question is yes, and it is possible to construct a theory in which Palauan verbs are formed from category-neutral roots that merge with DP arguments before it is established whether they will be transitive or intransitive. That is, (228a–b) each contain an identical constituent formed from just the root  $\sqrt{\text{SISIICH}}$  “strong” and a DP argument, and likewise for (229a–b) with the root  $\sqrt{\text{TIREM}}$  “chip.” The structures are given in Figs. 4.6 and 4.7.

In Fig. 4.6, the intransitive variant *mesisiich a rengul* is formed when the constituent containing the  $\sqrt{\text{ROOT}}$  and its argument DP merges with an adjectivalizer head  $a$  (spelled out as *me-*), forming an intransitive adjectival  $\psi$ -idiom. If that same constituent merges with a transitive  $v$  (spelled out as *meN-* or *-m-* depending on viewpoint aspect; see Chap. 3), the result is a transitive verbal  $\psi$ -idiom. In such a case, the  $\psi$ -argument DP is then licensed as a direct object of a transitive verbal predicate, rather than as a subject of an intransitive adjectival predicate. Figure 4.7 is similar, except that the intransitive variant *metirem a rengul* is formed when the constituent containing the  $\sqrt{\text{ROOT}}$  and its argument DP merges with an intransitive

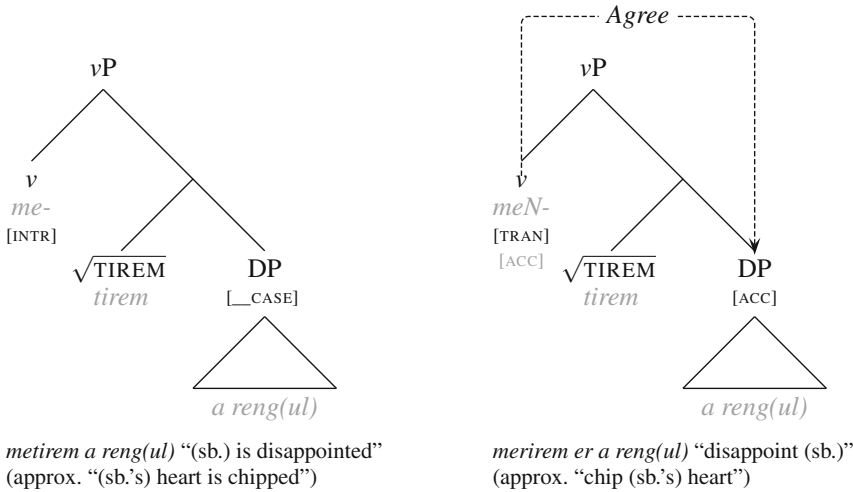


Fig. 4.7 Intransitive and transitive verbs formed from  $\sqrt{TIREM}$

verbalizer head  $v$  (also spelled out as *me-*; see Chap. 5), forming a verbal  $\psi$ -idiom. The transitive variant is formed the same way as in Fig. 4.6.<sup>19</sup>

The variation in category in (228) and the variation in valence in (229) is entirely predicted on the category-neutral theory of predicate structure. It should not matter which category-defining head merges with a [ $\sqrt{ROOT}$  + DP] combination that constitutes a  $\psi$ -expression. The fact that there are both adjectival and verbal variants of  $\psi$ -expressions is not surprising from a cross-linguistic perspective either;  $\psi$ -expressions with similar adjectival and verbal forms are found in other languages in Southeast Asia, both related and unrelated to Palauan. Nor is it surprising from a semantic perspective; adjectives and verbs are the prototypical categories used to describe psychological states and personality traits.

### 4.3.2 Nominal $\psi$ -Idioms

As I mentioned at the beginning of this chapter, it is frequently the case that a  $\psi$ -expression is the best way—or even the only way—to express a particular concept

<sup>19</sup>Here, I am conflating the Distributed Morphology notion of verbalizer  $v$  (in the sense of Marantz 1997 and subsequent work) with the Minimalist notion of Voice (in the sense of Kratzer 1996). It remains to be seen whether empirical evidence can decide whether these should be bundled together as I have done in Figs. 4.6 and 4.7 or whether they should remain separate. For example, Legate (2014) argues persuasively that  $v$  and Voice are necessarily separate heads in the related Austronesian language Acehnese. The choice between these two analyses is not immediately crucial for the present discussion; what is important is that the  $\sqrt{ROOT}$  forms a constituent with the DP argument before it is determined whether the predicate XP is transitive or intransitive.

in Palauan. From that perspective, it may not appear surprising that the class of nominal  $\psi$ -expressions is somewhat sizable. Many of these idioms feature nominal forms of  $\psi$ -predicates that usually have other categories (verbal and adjectival), and they have exactly the same idiomatic interpretations. A selection of nominal  $\psi$ -idioms is listed in Table 4.4.

One thing worth noting about the examples in Table 4.4 is that many  $\psi$ -predicates have more than one nominalized form. For instance, consider the contrasts below in (230) and (231).

- (230) a. A chereng-el a sils el me mong e ng  
 D same.amount-3PL.—HUMP D days L come go then 3SG=  
 chereng-el a **kl-ungiol-el** a **reng-ul** a Fern.  
 same.amount-3SGP D NMLZ-good-3SGP D heart-3SGP D Fern  
 “As the days went by, Fern became a happier and happier.” (approx. “The number of days passing by is equal to the amount of Fern’s heart’s goodness.”) [CB 14]
- b. M-letk-ak, el oak a diak le-me-ngodech  
 2S.IMP-remember.PF-1SGO L go.by.way.of D NEG 3S.IRR-PL-different  
 el bltk-il a reng-um me a **ungil-reng** er kau.  
 L affection-3SGP D heart-2SGP and D good-heart P you  
 “In your constant love and goodness, remember me.”  
 [Chedaol Biblia, Psalms 25:7]
- (231) a. A **ngelbes-el** a **reng-ul** a ur-rol-ii el mo  
 D NMLZ.drool-3SGP D heart-3SGP TOP CAU.PAST-travel.PF-3SGO L go  
 mk-idekel-ii  
 CAU.PF-dirty-3SGO  
 “Her lust led her to defile herself.” (approx. “Her heart’s drooling led her to make herself dirty.”) [Chedaol Biblia, Ezekiel 23:7]
- b. Ak mo toreb-engii a **ngibes-er-reng** er kau.  
 1SG= AUX.FUT stop.PF-3SGO D drool-L-heart P you  
 “I will put a stop to your lust.” (lit. “I will stop your heart-drool.”)  
 [Chedaol Biblia, Ezekiel 23:27]

In each of the (a) sentences, it appears that only the  $\psi$ -predicate is nominalized and inflected to agree with what is now treated as a  $\psi$ -argument possessor (which, in turn, has its own possessor). In the (b) sentences, on the other hand, it looks as though the  $\psi$ -predicate and the head N of its corresponding  $\psi$ -argument form a compound noun—sometimes connected with the linker, as in (231b)—which may then combine with a possessor (marked with *er*, rather than triggering possessor agreement; see Chap. 1, Sect. 1.2.2.2 for details). (230a) and (231a) are quite reminiscent of the sentences with verbal and adjectival  $\psi$ -expressions that we have

**Table 4.4** A selection of nominal  $\psi$ -idioms

Nominal $\Psi$ -expression	Meaning	Cf. Non-nominal
<i>blakerreng</i>	diligence; eagerness	<i>blak a rengul</i>
<i>bleoterreng</i>	nonchalance; unfaithfulness	<i>beot a rengul</i>
<i>bletengel a rengul</i>	nonchalance; unfaithfulness	<i>beot a rengul</i>
<i>bltikerreng</i>	love; affection	<i>betik a rengul</i>
<i>bltkil a rengul</i>	love; affection	<i>betik a rengul</i>
<i>chaserreng</i>	surprise; shock	<i>mechas a rengul</i>
<i>chederreng</i>	thirst	<i>meched a rengul</i>
<i>chedil a rengul</i>	thirst	<i>meched a rengul</i>
<i>cheluachederreng</i>	meanness	<i>mechuached a rengul</i>
<i>dechal a rengul</i>	perseverance; ambition	<i>meduch a rengul</i>
<i>deuil a rengul</i>	happiness; joy	<i>dmeu a rengul</i>
<i>deurreng</i>	happiness; joy	<i>dmeu a rengul</i>
<i>ducherreng</i>	perseverance; ambition	<i>meduch a rengul</i>
<i>kldidaierreng</i>	stubbornness; conceit; arrogance	<i>kedidai a rengul</i>
<i>klengariouerreng</i>	humility	<i>ngar er a eou a rengul</i>
<i>klouerreng</i>	patience	<i>klou a rengul</i>
<i>klngitterreng</i>	sorrow	<i>mekngit a rengul</i>
<i>ksbengel a rengul</i>	anger	<i>kesib a rengul</i>
<i>ksiberreng</i>	anger	<i>kesib a rengul</i>
<i>klungiaolerreng</i>	goodness; good feeling	<i>ungil a rengul</i>
<i>klungiolel a rengul</i>	goodness; good feeling	<i>ungil a rengul</i>
<i>kngtil a rengul</i>	sorrow	<i>mekngit a rengul</i>
<i>llemesel a rengul</i>	intelligence; wisdom	<i>mellomes a rengul</i>
<i>llomeserreng</i>	intelligence; wisdom	<i>mellomes a rengul</i>
<i>ngasecherreng</i>	anger	<i>ngmasech a rengul</i>
<i>ngelbesel a rengul</i>	acquisitiveness; sexual desire	<i>nguibes a rengul</i>
<i>ngesechel a rengul</i>	anger	<i>ngmasech a rengul</i>
<i>ngibeserreng</i>	acquisitiveness; sexual desire	<i>nguibes a rengul</i>
<i>rraurreng</i>	confusion; puzzlement	<i>rrau a rengul</i>
<i>saikerreng</i>	laziness	<i>mesaik a rengul</i>
<i>sebekreng</i>	worry; anxiety	<i>suebek a rengul</i>
<i>seserreng</i>	industriousness; diligence	<i>meses a rengul</i>
<i>sikel a rengul</i>	laziness	<i>mesaik a rengul</i>

seen elsewhere in this chapter, the primary difference being that the  $\psi$ -expression is a derived nominal rather than a verb or adjective. The resulting nominal phrases, *a klungiolel a rengul* “(one)’s heart’s goodness” in (230a) and *a ngelbesel a rengul* “(one)’s heart’s drool” in (231a) are related to the phrasal idioms *ungil a rengul* “(one)’s heart is good” (i.e., glad) and *nguibes a rengul* “(one)’s heart is drooling” (i.e., lustful) in a fairly transparent way. However, (230b) and (231b) contain what look to be compound forms of the phrasal idioms. Descriptively, the noun *reng* “heart” appears to form a compound noun with the predicate. For ease of reference in the following discussion, I will refer to the types of nominal  $\psi$ -expressions shown in the (a) sentences as nominalizations and those in the (b) sentences as compound nominals.

The choice between the nominalization strategy and the compounding strategy is relatively free, but there are a few noteworthy observations about the distributions of the two types. First, abstract nominals typically do not require possessors, and the possessor-less variants in Palauan are constructed using the compounding strategy. That is to say, it is perfectly grammatical to talk about “worry” (*sebekreng*, cf. *suebek a rengul* “(one)’s heart is flying”), “patience” (*kllourreng*, cf. *klou a rengul* “(one)’s heart is big”), or “pride/stubbornness” (*kldidaierreng*, cf. *kedidai a rengul* “(one)’s heart is high”) in general or conceptual terms, without describing a particular entity. It appears that if the noun *reng* is part of a compound nominal, a possessor of the entire compound nominal is just optional, not obligatory. Representative examples can be found below in (232).

- (232) a. A **sebek-reng** a mek-bered-ii a reng-ul a chad.  
 D fly-heart TOP CAU-heavy.PF-3SGP D heart-3SGP D person  
 “Worry can rob you of happiness.” (lit. “Heart-flight makes a person’s heart heavy.”)  
 [*Chedaol Biblia*, Proverbs 12:25]
- b. A **k/lou-r-reng** a kuk ungil er a **k/didai-er-reng**.  
 D NMLZ.big-L-heart TOP more good P D NMLZ.high-L-heart  
 “Patience is better than pride.” (lit. “Heart-largeness is better than heart-height.”)  
 [*Chedaol Biblia*, Ecclesiastes 7:8]

This optionality contrasts starkly with non-nominal  $\psi$ -idioms, which have  $\psi$ -arguments that are inalienably possessed, like the now familiar *reng* “heart.”

Second, it seems to me that when the noun describes a property or event associated with a particular entity (i.e., what would be the possessor of the  $\psi$ -argument in a verbal or adjective  $\psi$ -expression) rather than simply an abstract concept, there is a preference for the nominalization strategy, and in this form,  $\psi$ -idiom nominalizations must have possessors. But there are enough naturally-occurring example sentences that employ the compounding strategy to suggest that it is also a perfectly viable option in these types of situations, and native speakers of Palauan also produce them in elicitation settings. For instance, *ungilreng* “goodness” in (230b) and *ngibeserreng* “lust” in (231b) both have possessors *k* marked with *er*.

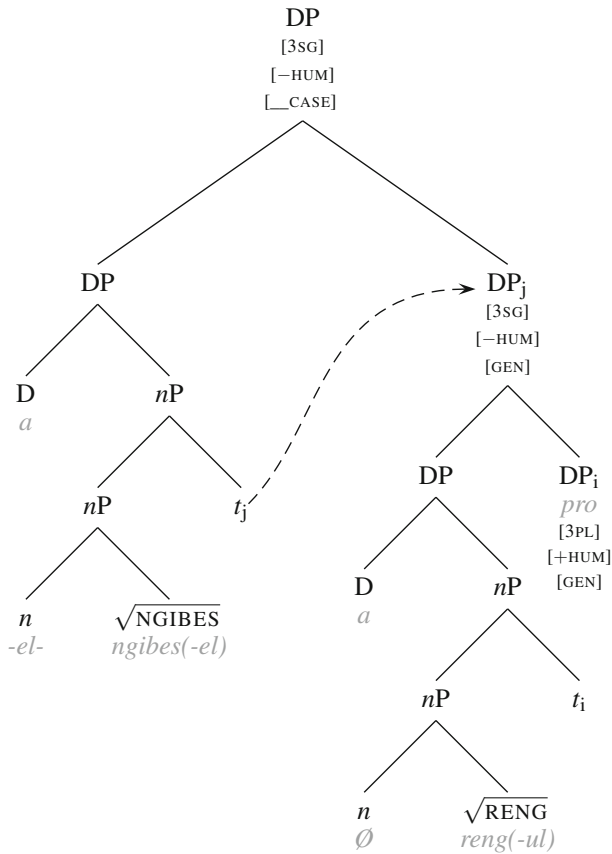


Fig. 4.8 Phrase structure for  $\psi$ -nominalizations (here: *a ngelbesel a rengul*)

There are at least three primary differences between the  $\psi$ -nominalizations in (230a) and (231a) and their non-nominal counterparts. First, they often (but do not always) contain nominalizing morphology like *kl(e)-* or *-(e)l-*.<sup>20</sup> Second, they are inflected for possessor agreement with their  $\psi$ -arguments, suggesting that the  $\psi$ -argument DP itself is treated syntactically as a possessor (with another possessor of its own).<sup>21</sup> And third, they are preceded by the determiner *a*, suggesting that they are nouns that are heads of a larger extended nominal projection (in the sense

<sup>20</sup>See Josephs (1990: 120–127) for numerous examples of *kl(e)-* nominals and Josephs (1997: Chap. 8) for a more general discussion of Palauan complex nominals.

<sup>21</sup>That the *-el* suffix in  $\psi$ -nominalizations is a possessor agreement morpheme and not simply an instance of the linker *el* is clear from the stress shift and resulting vowel reduction that applies in the stem that *-el* attaches to, as well as its allomorphy, e.g., *-al* in *a dech-al a rengul* and *-il* in *a deu-il a rengul*, *a kngt-il a rengul*, and so forth. Furthermore, even though the linker *el* and the possessor agreement suffix *-el* are spelled alike, the linker is pronounced with [ə] whereas the possessor agreement suffix is pronounced with [ɛ].

of Grimshaw 2005: Chap. 1). Together, the morphosyntactic facts suggest a phrase structure like that in Fig. 4.8 for *a ngelbesel a rengul* “(one)’s lust.”<sup>22</sup>

As far as the  $\psi$ -compound nominals like those in (230b) and (231b) are concerned, the structure is far less clear. Given the morphological variability of  $\psi$ -compound nominals, it would appear that they are formed from two lexical roots that contain some form of the linker *el* in between. The [l] in *el* often assimilates to a following root-initial [r], and the linker is sometimes reduced to simply *-l-* or *-r-*, i.e., the schwa is deleted (see Ntelitheos 2010, 2012 for an analysis of a superficially similar type of compound in Malagasy).

Depending on the theory of morphology adopted, nominalizations and compound nominals could be formed in the lexicon, for example with the same types of word formation rules that are used to derive nouns from adjectives and verbs. For instance, the nominalization in (230) involves the noun *klungiaol* “goodness” which is clearly derivationally related to (and morphologically more complex than) the adjective *ungil* “good.” One might be tempted to posit lexical rules to create deadjectival and deverbal nouns from idiomatic predicates, retaining their core meaning. For example, the idiomatic predicate *ungil a rengul* “(x is) happy” is nominalized to form *a klungiolel a rengul* “(x)’s happiness” just as *ungil* “good” is nominalized to form *klungiaol* “goodness.” Such a theory is compatible with the idea that verbs, nouns, and adjectives are specified for category in the lexicon, and enter the syntax as instances of V, N, or A.

However, there is reason to suspect that not all nominal  $\psi$ -idioms are deverbal or deadjectival. There is a subset of nominal  $\psi$ -idioms that are formed from simple, underived nouns. Some representative examples include *a dechal a rengul* “perseverance” (cf. *duch* “ability; skill” whose form with 3SG possessor agreement is *dechal*), *a llemesel a rengul* “intelligence” (cf. *llomes* “light; brightness” whose form with 3SG possessor agreement is *llemesel*), and *a chedil a rengul* “thirst” (cf. *ched* “low tide” whose form with 3SG possessor agreement is *chedil*). Examples of  $\psi$ -nominals based on *llomes* “light” are provided below in (233).

- (233) a. Ngii a rol-el el mo chemolt aike el rokui el mekreos el  
 he TOP way-3SGP L AUX.FUT appear those L all L precious L  
 tekoi el l-odengei a Dios er a **llemes-el** a **reng-ul**.  
 things L 3S.IRR-know D God P D brightness-3SGP D heart-3SGP  
 “He is the key that opens all the hidden treasures of God’s wisdom and  
 knowledge.” [Chedaol Biblia, Colossians 2:3]
- b. Ngii el **llemes-er-reng** el k-umerk er ngii a  
 it L brightness-L-heart L 1SGS.IRR-proclaim.IMPF ACC it TOP  
**llemes-er-reng** er a Dios el mle berrot-el.  
 brightness-L-heart P D God L AUX.PAST RES.hide-RES  
 “The wisdom I proclaim is God’s secret wisdom.”  
 [Chedaol Biblia, 1 Corinthians 2:7]

<sup>22</sup>Compare this structure, which incorporates aspects of the theory of category-neutral roots, with that in Fig. 2.9, which assumes that all terminal syntactic nodes are category-specific.



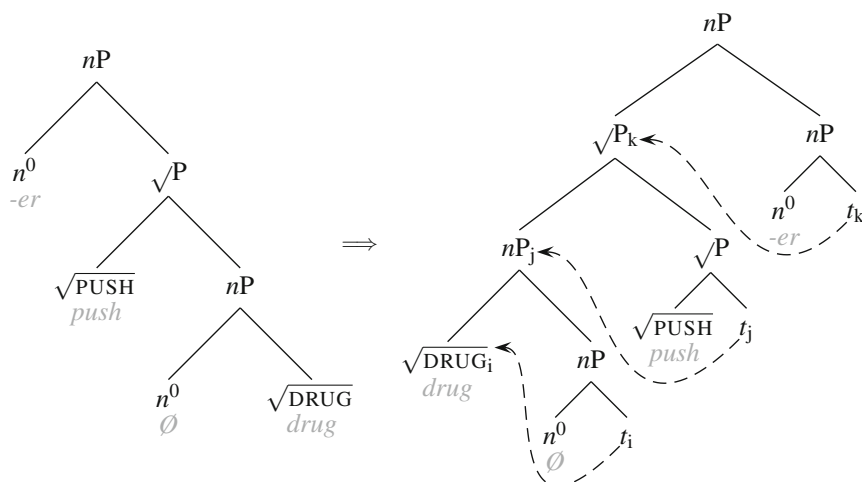


Fig. 4.9 Derivation of *drug-pusher* on Harley's (2008) analysis

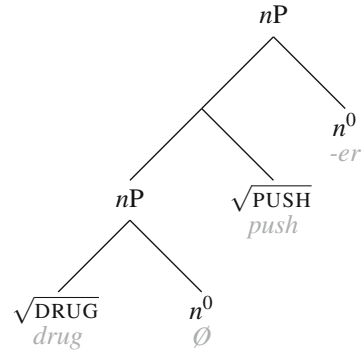
That there are  $\psi$ -nominals which are underived from verbs or adjectives—like those in (233)—is theoretically important and argues for the category-neutrality of lexical roots. If  $\psi$ -nominals were always deverbal or deadjectival, then they could plausibly be derived from structures like  $[n [V DP]]$  or  $[n [A DP]]$ .<sup>23</sup> But because they can be “simple” nouns, then there is an argument for category-neutral roots. The important generalization is that the non-compositional semantics associated with  $\psi$ -idioms is assigned to a combination of roots that are sufficiently local. It does not matter which category these roots have: underived nominal, derived nominal, stative adjective, resultative adjective, intransitive verb, or transitive verb. The idiomatic interpretation persists. Any morphological theory that treats idioms as formed in the lexicon from category-specified lexical items misses this generalization.

In light of the inability for any constraint on  $\psi$ -idioms besides the string locality constraint in (187) to account for the data in this chapter and the facts surrounding transitivity alternations in  $\psi$ -idioms shown in Sect. 4.3.1, I suggest that idiomatic meanings cannot be assigned until narrow syntactic operations are complete (i.e., after Spell Out), and that we pursue a syntactic approach to the derivation of  $\psi$ -nominals. Recently, Harley (2008) has imported Baker's (1988) analysis of noun incorporation into the framework of Distributed Morphology, proposing that compounding can be analyzed syntactically as incorporation of an  $nP$  (which contains a category-neutral  $\sqrt{ROOT}$  and a nominalizer  $n$ ) into a new  $\sqrt{ROOT}$ .  $nP$ -incorporation creates a compound noun like *truck-driver*, *drug-pusher*, *car-chasing (dog)*, etc.<sup>24</sup> Harley (2008: 135) proposes a structure like that in Fig. 4.9 for *drug-pusher*, assuming an adjunction theory of head movement (for instance, see Matushansky 2006

<sup>23</sup>I thank Mark Baker for pointing this out to me.

<sup>24</sup>Cf. Roeper and Siegel (1978) for a lexical analysis.

**Fig. 4.10** Alternate analysis of *drug-pusher* with no head movement



for a particularly relevant analysis of head movement that is well-suited to Harley’s theory of compounding-as-incorporation).<sup>25</sup>

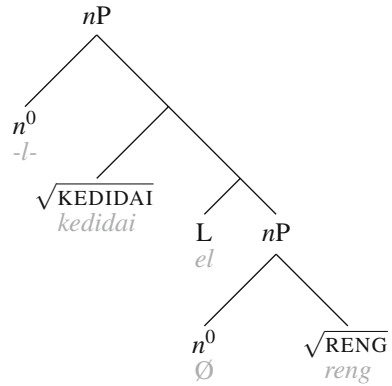
The intuition behind Harley’s analysis is that compounds are syntactic constituents that are formed whenever a  $\sqrt{\text{ROOT}}$  merges with a noun (in this theory, “nouns” are *nP*s) before it merges with a category-defining head (e.g., *n*, *a*, or *v*). Maintaining this intuition, an alternate analysis of *drug-pusher* might look like that in Fig. 4.10, which requires no head movement.<sup>26</sup> This is the sort of analysis I would like to propose for Palauan  $\psi$ -compound nominals. Rather than merging with a full DP argument, a  $\psi$ -predicate  $\sqrt{\text{ROOT}}$  merges with a  $\psi$ -argument *nP*, such as [*n*  $\sqrt{\text{RENG}}$ ] “heart” or [*n*  $\sqrt{\text{NGOR}}$ ] “mouth.” The  $\psi$ -argument *nP* forms a compound with the  $\psi$ -predicate  $\sqrt{\text{ROOT}}$  once the resulting subtree merges with a nominalizer *n*, such as *kl(e)-* in *klengariouerreng* “humility” (cf. *ngar er a eou a rengul* “(one)’s heart is on the bottom”) or *-(e)l-* in *kldidaierreng* “stubbornness” (cf. *kedidai a rengul* “(one)’s heart is high”). The fact that many of the  $\psi$ -compound nominals in Table 4.4 contain what appear to be mutated forms of the linker suggests that the *nP* does not saturate an argument position in the semantics of its sister  $\sqrt{\text{ROOT}}$ , but perhaps modifies it or restricts it (e.g., along the lines of proposals by van Geenhoven 1998; Chung and Ladusaw 2003; Farkas and de Swart 2003). The proposed structure for *kldidaierreng* and  $\psi$ -compound nominals more generally is illustrated in Fig. 4.11.

The noun *reng* cannot inflect for possessor agreement whenever it appears in a  $\psi$ -compound nominal, as we saw in (230b) and (231b), which provides additional support for the view that it does not form a constituent with any possessor DP before

<sup>25</sup>Compare Fig. 4.9 to Harley (2008: 136, ex. 7).

<sup>26</sup>Harley proposes head movement in order to preserve the spirit of Baker’s (1988) analysis of noun incorporation (Harley 2008: 133). However, as Harley’s analysis of English compounds dictates that the incorporated element cannot be a DP (see also Lieber 1992: 12), it seems to me that no head movement is necessary, as there is no evidence that the incorporated noun (*nP* in Harley’s terms) is extracted from any larger constituent.

**Fig. 4.11** Phrase structure for  $\psi$ -compound nominals (here: *kldidaierreng*)



it merges with the  $\psi$ -predicate  $\sqrt{\text{ROOT}}$ . Possessors in DPs containing  $\psi$ -compound nominals are obligatorily marked with *er*, even if either root in the compound (or both) has morphological possessor agreement paradigms, e.g., the various forms of *reng* in Table 4.1. When *reng* is in a  $\psi$ -compound nominal, it *cannot* have its own possessor despite its being an inalienably possessed noun (Josephs 1990: 289), as shown in (234b–c) and (235b–c).

- (234) a. Me ng so-ak el nguu tia el techall el  
 and.so 3SG= desire-1SGP L take.PF.3SGO this L opportunity L  
 l-ochot-ii a **deu-il** a **reng-ud**.  
 3S.IRR-show.PF-3SGO D joy-3PL.–HUMP D hearts-1PL.INCP  
 “I want to take this opportunity to show our gratitude.” [CB 54–55]
- b. A Dios a *mils-kak* a **deu-r-reng** me a cherchur.  
 D God TOP PAST.bring.PF-1SGO D joy-L-heart and D laughter  
 “God has brought me joy and laughter.” [Chedaol Biblia, Genesis 21:6]
- c. \*... a **deu(il)-(e)r-reng-ul**  
 ... D joy(3SGP)-L-heart-3SGP  
 (“his/her joy”)

- (235) a. A *dellebeakl* le-bo er a **ngsech-el** a **reng-rir**,  
 D NMLZ.curse 3S.IRR-become P D climb-3SGP D hearts-3PL.+HUMP  
 e le ng kmal kdekudel.  
 because 3SG= very awe-inspiring  
 “A curse be on their anger, because it is so fierce.” (approx. “(May) a  
 curse be on their hearts’ climb(ing), because...”)  
 [Chedaol Biblia, Genesis 49:7]

- b. E ak mo omtok er kemiu el ob-a a  
 then 1SG= AUX.FUT oppose.IMPF ACC you.PL L carry.PF-3SGO D  
**ngasech-er-reng.**  
 climb-LNK-heart  
 “Then in my anger I will turn on you.” (approx. “Then I will oppose you  
 with anger.”) [Chedaol Biblia, Leviticus 26:28]
- c. \*... a **ng(a)sech(el)-(e)r-reng-ul**  
 ... D climb(3SGP)-L-heart-3SGP  
 (“his/her anger”)

If the structure proposed in Fig. 4.11 is correct, then it serves as evidence for a particular subtype of phrasal idiom that requires a local ordering relation between category-neutral roots, rather than a relationship that is restricted to combinations of predicates and particular argument DPs or to particular hierarchical structural configurations between idiom chunks.  $\psi$ -idioms can be listed in the Encyclopedia as  $\sqrt{\text{ROOT}}-\sqrt{\text{ROOT}}$  sequences with a special interpretation.

#### 4.4 What Idioms Tell Us about the Organization of the Grammar

The data involving transitivity alternations in Sect. 4.3.1 and nominal idioms in Sect. 4.3.2 provides further evidence for the analysis of Palauan  $\psi$ -expressions developed at the beginning of Sect. 4.3.<sup>27</sup> If the non-compositional meanings of phrasal idioms involve encyclopedic knowledge of particular combinations of roots, then the analysis predicts that transitivity alternations, nominalizations, and compounds should allow idiomatic interpretations to persist as long as the relevant restrictions on the locality and ordering of idiom chunks is satisfied after linearization.

The theory that roots are category-neutral allows  $\psi$ -idioms to vary in their transitivity as in Sect. 4.3.1 and even in their syntactic category as in Sect. 4.3.2; a child acquiring Palauan does not need to posit separate idioms that coincidentally have the same meaning but vary in transitivity or syntactic category. The question is how a theory like this can handle instances of non-compositional meanings. This issue is not particularly problematic for a theory in which a given subtree is listed in the lexicon as a complex lexical item with a particular semantics, as in lexicalist theories of morphology where lexical items are the building blocks of syntactic structure. But for a theory in which the post-syntactic Encyclopedia is accessed only after Spell

<sup>27</sup>Data involving resultative adjectives formed from  $\psi$ -idioms is also briefly examined in Chap. 6, Sect. 6.3. Some examples are given in Table 6.1.

Out, the inverted Y model would seem to predict that only PF or LF (and not both) should condition the availability of a non-compositional, idiomatic interpretation.

The situation is reminiscent of English expressions like “break one’s heart,” examples of which are given in short excerpts of lyrics from popular songs in (236).

- (236) a. ...and it **breaks** my **heart**... [Regina Spektor, “Fidelity”]  
 b. ...my **heart** is **breaking** just for you... [Lionel Richie, “Just For You”]  
 c. ...his **heart** seemed to **break** when he mentioned her name...  
     [John Mellencamp, “Grandma’s Theme”]  
 d. ...never had my **heart broken** by you... [Jordan Knight, “Broken By You”]  
 e. ...this is how a **heart breaks**... [Rob Thomas, “This Is How A Heart Breaks”]  
 f. ...and who alone will comfort you? Only the **broken-hearted**...  
     [Eric Clapton, “Broken-Hearted”]  
 g. ...hey Lloyd, I’m ready to be **heartbroken**...  
     [Camera Obscura, “Lloyd, I’m Ready To Be Heartbroken”]  
 h. ...guess mine is not the [first **heart**] **broken**...  
     [Olivia Newton-John, “Hopelessly Devoted To You”]  
 i. ...I’m not the type to get [my **heart**] **broken**... [Rihanna, “Cry”]  
 j. ...when you’re dreaming with [a **broken heart**], then waking up is the  
     hardest part... [John Mayer, “Dreaming With A Broken Heart”]  
 k. ...you’re bringin’ on the **heartbreak**...  
     [Def Leppard, “Bringin’ On The Heartbreak”]  
 l. ...go away, **Heartbreaker**... [Led Zeppelin, “Heartbreaker”]

Each example contains an instance of the roots  $\sqrt{\text{HEART}}$  and  $\sqrt{\text{BREAK}}$  in a different syntactic configuration. But the difference between expressions like English “break one’s heart” and Palauan  $\psi$ -idioms is that the English variety does not appear to be subject to any sort of locality or ordering restriction like the string locality constraint on  $\psi$ -idioms in (187). English “break one’s heart” is more metaphorical than idiomatic (Lakoff and Johnson 1980). In some sense, then, the properties of Palauan  $\psi$ -idioms lie somewhere between those of idioms that can be manipulated by a variety of operations, like English *pull strings* in (179), and those of more rigid idioms, like English *kick the bucket* in (180). Fraser’s (1970) research on English idioms concludes they can be classified hierarchically by which syntactic or morphological operations and manipulations they permit, given in (237).<sup>28</sup>

<sup>28</sup>Cf. Fraser 1970: 36–42 for the original formulation and further discussion of each level, which I have slightly modified in (237). Fraser refers to Level 5 Idioms as the class that allows “reconstitution.” He also refers to Level 1 Idioms as the class that allows only “adjunction,” as he views the relevant morphological changes as adjunction processes.

## (237) THE FRASER HIERARCHY OF IDIOMS (UPDATED)

Level 6 (Unrestricted): All operations are permitted.

Level 5 (Category Changes): Any operation that changes the syntactic categories of elements within the idiomatic unit is permitted.

Ex.: *We hated it whenever they cracked the whip over us* ⇒ *We hated every crack of the whip over us*

Level 4 (Extraction): Any operation that extracts a subpart from the idiomatic unit to a position outside of the unit is permitted.

Exx.: *I thought his critique hit the nail (right) on the head* ⇒ *I thought the nail was hit (right) on the head (with his critique)*; *I wouldn't touch it with a ten-foot pole* ⇒ *There is no ten-foot pole that I would touch it with*; *We poked fun at the situation* ⇒ *How much fun did you poke at the situation?*

Level 3 (Permutation): Any operation that changes the order of elements within the idiomatic unit is permitted.

Exx.: *Every cosmetics company claims to be able to turn back the clock* ⇒ *Every cosmetics company claims to be able to turn the clock back*; *You can't teach new tricks to an old dog* ⇒ *You can't teach an old dog new tricks*

Level 2 (Insertion): Any operation that inserts additional material in a position inside of the idiomatic unit is permitted.

Exx.: *People are always fishing for {compliments, the solution, an answer, ...}*; *They gave {me, the politicians, every single one of my neighbors across the street, President Obama ...} hell*

Level 1 (Adjunction/Morphological Changes): Any operation that adjoins words or changes the morphological form of elements within the idiomatic unit is permitted.

Exx.: *Quite unexpectedly, the children turned over a new leaf* ⇒ *The children's turning over a new leaf was quite unexpected*; *We burned the candle at both ends* ⇒ *We burned the candle together at both ends*

Level 0 (Completely Frozen): No operations whatsoever may apply to the idiomatic unit.

The Fraser Hierarchy aims to capture a generalization about English phrasal idioms, which states that if a particular idiom permits operations at level  $n$ , then the same idiom will also permit operations at every level  $<n$ . For example, if a particular idiom allows permutations (level 3), then it should also allow insertions (level 2) and adjunctions/morphological changes (level 1). Furthermore, the idiom will not permit operations at any level  $>n$ . So a level 3 idiom will not allow extraction (level 4) or category changes (level 5).

The robustness of the Fraser Hierarchy allows us to make some sense of the variation in the behavior of English idioms. Still, it seems unlikely to hold cross-linguistically, given the behavior of Palauan  $\psi$ -idioms. For instance, we know that

the truly idiomatic  $\psi$ -expressions do not allow inversion of the  $\psi$ -predicate and the  $\psi$ -argument (level 3), nor can any element that contains a  $\sqrt{\text{ROOT}}$  intervene between the two (level 2). As for extraction, it was shown that while possessors of  $\psi$ -argument DPs can freely extract (level 4), entire  $\psi$ -argument DPs can do so only if the movement does not disrupt linear adjacency between the two  $\sqrt{\text{ROOT}}$ s that form the basis of the  $\psi$ -idiom. Still, we have observed that components of  $\psi$ -idioms allow morphological changes (level 1) and even category changes (level 5).

The data is compatible with the category-neutral root theory and (post-)syntactic theories of word formation like Distributed Morphology and A-Morphous Morphology, but it poses challenges for a lexicalist theory in which idioms are simply listed or derived in the (pre-syntactic) lexicon. Of course, one could posit multiple lexical entries for each morphological form of a given  $\psi$ -expression (just as one might posit distinct singular and plural forms of each noun in a lexicon), but such a theory would fail to capture the regularities among different morphological forms of the same idiomatic  $\psi$ -expressions, and it would not explain the peculiar restrictions on string adjacency that we saw in the data in this chapter.

I would like to close this chapter with a brief note that the notion of string adjacency used to characterize the locality constraint on  $\psi$ -idioms is relative. Beyond voice, transitivity, and category-signifying morphology, other sorts of morphology can combine with a  $\psi$ -predicate to form a word, including irrealis subject agreement prefixes on imperatives, as in (238), and aspectual suffixes, as in (239).

- (238) a. M-ollach, e m-osmechokl, e **m-olisiih**  
 2S.IMP-advise.IMPF and 2S.IMP-correct.IMPF and 2S.IMP-strengthen.IMPF  
 a **reng-rir** a ruumerang.  
 D hearts-3PL.+HUMP D PL.believer  
 “Convince, reproach, and encourage the believers.” (lit. “...strengthen the believers’ hearts.”) [Chedaol Biblia, 2 Timothy 4:3]
- b. L-ak **le-sebek** a **reng-um** e ng kmal diak a  
 3S.IMP-NEG 3S.IRR-fly D heart-2SGP and 3SG= very not.exist D  
 rol-em e bo mad.  
 way-3SGP then AUX.FUT.IRR die  
 “Don’t worry; there’s really no way you’re going to die.” (approx. “May your heart not fly...”) [CB 81]
- c. Ng kuk oberoad er a chelechol er a rriil, me  
 3PL.—HUM= more heavy P D sands P D sandy.beach and.so  
 l-ak **le-me-chas** a **reng-miu** er a tekoi el  
 3S.IMP-NEG 3S.IRR-PASS-char D hearts-2PLP P D words L  
 kulekoi.  
 1SGS.IRR.speak.IMPF  
 “They would weigh more than the sands of the sea, so my wild words should not surprise you.” (approx. “...that your heart not be charred by the words that I speak.”) [Chedaol Biblia, Job 6:3]

- (239) a. A re-sib a oumisk e kmal **ngosech-a**  
 D PL-sheep TOP make.click and a.lot INTR.climb-ICP  
 a **reng-rir** me te lmuut el  
 D hearts-3PL.+HUMP and 3PL.+HUM= happen.again L  
 ongeng-ii.  
 stare.at.PF-3SGO  
 “The sheep clucked in disapproval and were starting to get very angry,  
 and they stared at it again.” [CB 43]
- b. Ng dirkak le-bo el eru el buil el k-chad  
 3SG= not.yet 3S.IRR-become L two L months L 1SGS.IRR-person  
 e **turek-a** a **reng-uk** er a kle-chad.  
 and crash-ICP D heart-1SGP P D NMLZ-life  
 “I’m not even 2 months old yet and I’m getting tired of being alive.”  
 (approx. “...and my heart is starting to crash because of life.”) [CB 21]
- c. A re-bek el charm a ko er a kmal **ungi-a** a **reng-rir**  
 D PL-all L animals TOP like P D very good-ICP D hearts-3PL.+HUMP  
 me te ko er a di mle che/laod.  
 and 3PL.+HUM= like P D just AUX.PAST RES.comfort  
 “All the animals were starting to be really glad and they were somewhat  
 comforted.” (approx. “All the animals were starting to have somewhat  
 good hearts...”) [CB 100]

If further crosslinguistic research on idioms reveals similar patterns in which the locality constraint on idiom chunks must be represented linearly rather than hierarchically, it will be interesting to see whether the notion of “adjacency” will prove to be relative rather than absolute in these other languages, allowing functional morphology—or perhaps other elements—to appear between the relevant lexical roots that determine the idiomatic meaning in a non-compositional manner.

In the next chapter, the inventory of transitive *v* heads proposed in Chap. 3 is augmented to include intransitive *v* heads. The theory of category-neutral roots developed here in Chap. 4 provides a way to view the syntactic behavior of the class of Palauan intransitive verbs that allows us to make sense of their non-uniform syntactic behavior. I argue that *v* is not just<sup>29</sup> a Voice morpheme (cf. Johnson 1991; Kratzer 1996; Chomsky 2000 et seq.; Legate 2014) but is primarily responsible for giving category-neutral syntactic elements the lexical category “verb” (or changing the category of a category-defined syntactic constituent to the category “verb”).

<sup>29</sup>I do, in fact, assume that certain *v* heads may bear voice features like [ACTIVE] or [PASSIVE], but I do not assume that it is the primary function of *v* morphemes (as a class) to encode voice features. Certain *v* morphemes, e.g., unaccusative *v*, do not bear any voice features on the theory I develop in Chap. 5.



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## Chapter 5

# From Roots to Words to Predicates

In Chap. 3, I argued that transitive verbs were formed from transitive verbalizer morphemes that combine with a stem. In Chap. 4, I explored the ramifications of treating this stem as having originated as a category-neutral root, in the context of the predictions that such a theory makes about idioms in Palauan. This chapter refines the idea that verbalizers are a class of functional heads of the category  $v$ , whose function is to transform a root into a full-fledged verb, focusing on data involving intransitive verbs in Palauan. The primary question addressed is one of selection and (extended) projection: if a verb is a syntactic object constructed compositionally from a root and a verbalizer  $v$  via the operation Merge, one might expect to find many more verbs in a language than are actually attested. For instance, if the lexicon of a language  $L$  contains a set of roots  $R$  with the cardinality  $|R|$  and a set of verbalizer morphemes  $V$  with the cardinality  $|V|$ , then it should be possible to derive a total of  $|R| \times |V|$  verbs in  $L$ . And if verbalizer (and other category-defining) morphemes can combine with syntactic constituents that have already been assigned a category, then the number of possible verbs in  $L$  is, in principle, limitless.

But this is not what we find in natural language. For example, it has been claimed that certain transitive verbs like *lack* cannot be passivized; compare (240) to (241).

(240) Deborah lacked a pleasing personality. [Postal 2004: 265, ex. 87a]

(241) \*A pleasing personality was lacked by Deborah. [Postal 2004: 265, ex. 87b]

In category-neutral root theory, the transitive verb *lack* is constructed syntactically from a transitive  $v$  and a root  $\sqrt{\text{LACK}}$ . If passive verbs are not derived from active verbs but can be constructed independently and freely from the same roots when they merge with a passive  $v$  (as I argue in this chapter), then the ungrammaticality of a sentence like (241) might be seen as surprising. One could argue that there is some semantic property of the state of lacking that is incompatible with passive  $v$ . Looking at some other languages, e.g., Italian and French, it appears that verbs with meanings similar to English *lack* also lack passive variants, suggesting that a semantic approach

might be appropriate. For instance, consider the Italian examples in (242) and the French examples in (243).

(242) ITALIAN:

- a. Ai bambini non manca energia.  
to the kids not lacks energy  
“The kids don’t lack energy.” [Perlmutter 1984: 293, ex. 4d]
- b. \*Energia non è mancato dagli bambini.  
energy not is lacked by the kids  
(“Energy is not lacked by the kids.”) [Pesetsky 1995: 51, ex. 149b]

(243) FRENCH:

- a. L’argent a manqué à nos parents.  
money has lacked to our parents  
“Our parents have lacked money.” [cf. Legendre 1989: 753, ex. 2a]
- b. \*L’argent a été manqué par nos parents.  
money has been lacked by our parents  
(“Money has been lacked by our parents.”) [Géraldine Legendre, p.c.]

While the argument structures of Italian *mancare* and French *manquer* are different from English *lack*, the fact that none of these verbs have passive forms is striking. Italian *mancare* and French *manquer* are unaccusative verbs that take dative experiencers (i.a., Belletti 1988: 16 for Italian *mancare* and Legendre 1989: 761–762 for French *manquer*) while English *lack* is a transitive stative verb with a nominative experiencer subject.<sup>1</sup> But the question I wish to consider is whether there is any *connection* between the fact that English *lack* resists passivization and the fact that the same concept is represented in Italian and French with unaccusative predicates, which cannot passivize. Put differently, is there something about the semantics of the concept LACK that makes passivization impossible or undesirable?

As is often the case, the question is complicated when we take additional languages into account. In Dutch, for example, there is reason to doubt that the (un)acceptability of a passive form of a transitive verb depends solely on the semantics of the verb. Hoekstra (1984) cites examples using two Dutch verbs with similar meanings—*opvallen* and *treffen*—only one of which may be passivized; note the contrasts in (244) below. Perlmutter and Postal (1984: 115) and Pesetsky (1995: 52) list similar such pairs of synonymous verbs in English, such as those in (245).

<sup>1</sup>An anonymous reviewer correctly notes that the contrast in English (240) and (241) is a different puzzle than the contrasts in Italian (242) and French (243) for exactly this reason. As the Italian and French verbs are unaccusative, we should not expect them to passivize, given the robust cross-linguistic generalization that goes back to Relational Grammar. By comparison, English *lack* is more of a lexical anomaly, inasmuch as most transitive verbs freely passivize.

## (244) DUTCH:

- a. Die fout is mij opgevallen.  
that mistake is me struck  
“That mistake struck me.” [cf. Hoekstra 1984: 185, ex. 123a]
- b. \*Ik ben/werd door die fout opgevallen.  
I am by that mistake struck  
(“I am struck by that mistake.”)  
[cf. Hoekstra 1984: 185, ex. 123b; Pesetsky 1995: 52, ex. 151b]
- c. Die fout heeft mij getroffen.  
that mistake has me struck  
“That mistake struck me.” [cf. Hoekstra 1984: 186, ex. 124a]
- d. Ik ben/werd door die fout getroffen.  
I am by that mistake struck  
“I am struck by that mistake.”  
[cf. Hoekstra 1984: 186, ex. 124b; Pesetsky 1995: 52, ex. 152a]

- (245) a. The correct generalization eluded Pāṇini.  
b. \*Pāṇini was eluded by the correct generalization.  
c. Pāṇini missed the correct generalization.  
d. The correct generalization was missed by Pāṇini.  
[Pesetsky 1995: 52, ex. 154a–d]

Alternations like those in (244) and (245) strongly suggest that a purely lexical semantic explanation will not suffice to delimit the class of transitive verbs that may have passive forms.<sup>2</sup> Furthermore, one need not look far to find passive forms of English verbs which—some have claimed—cannot be passivized. For instance, consider the passive forms of *lack* and *elude* below in (246) and (247).

- (246) a. In this form the axiom affirms a certain syntactical property of the system *S*; an important property, but one which **is lacked by most comprehensive systems**, including that of *P.M.* [Quine 1936: 500]

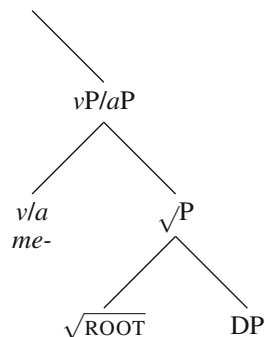
<sup>2</sup>Mathias De Wachter (p.c.) informs me that *mij* in (244a) is dative, while *mij* in (244c) is accusative. He also does not perceive *opvallen* and *treffen* to be identical in meaning. According to him, *treffen* is really something that an external thing does to you; it’s a pretty exact translation of *strike* in English. But *opvallen* is something that one’s attention does to some outside action; it seems pretty close to *notice* in English. If this is on the right track, then the fact that (244b) is ungrammatical could very well be that the dative experiencer *mij* in (244a) does not count as a direct object in the same way as the accusative patient *mij* does in (244c). Or, in the terminology of Relational Grammar, (244a) does not contain a 2, but (244c) does.

- b. Both Replagal and Genzyme’s drug, Fabrazyme, consist of an enzyme that **is lacked by patients with Fabry disease**.  
[“Drug Concern’s Shares Fall After a Disappointing Trial,”  
*The New York Times*, 28 November 2002.]
- c. The Core Fighter was a type of escape system, and **was lacked by all mass-produced suits**.  
[URL: [http://en.wikipedia.org/wiki/Project\\_V](http://en.wikipedia.org/wiki/Project_V); retrieved 13 May 2010.]
- d. On the basis of that information, she could then infer whether each trait **was possessed or lacked by the target**. [Leyens et al. 1997: 514]
- e. In plants, a second domain ... retained the legumain-like inhibitory properties, which **were lacked by the papain-like inhibitory domain**.  
[Martinez et al. 2007: 2918]
- (247) a. While the new catch phrase uses simpler and more accessible English, it still **is eluded by that ‘oomph’ that is required of a brand**.  
[“Please re-brand the Botswana brand,” *Mmegi Online*, 27 April 2010]
- b. “**Trap Is Eluded By Castro Force**” [Headline in *Toledo Blade*, 11 April 1958]
- c. After he **is eluded by Spider-Man** once again, the Hobgoblin causes OsCorp to explode.  
[URL: [http://en.wikipedia.org/wiki/The\\_Hobgoblin\\_\(Spider-Man\)](http://en.wikipedia.org/wiki/The_Hobgoblin_(Spider-Man));  
retrieved 17 May 2010.]
- d. This precaution **was eluded by the vigilance of and despatch of Downing**. [Hume 1825: 762]
- e. The mitotic arrest induced by mutations in CTF13 **is eluded by mutations in these genes**. [Waters et al. 1998: 1182]

In each example in (246) and (247), the passive forms of *lack* and *elude* are followed with a *by*-phrase expressing what would have been the experiencer subject of the transitive forms of *lack* and *elude*. It appears, then, that the ban on passive forms of verbs such as *lack* and *elude* is not absolute; for certain speakers—and possibly under certain conditions—passive forms are perfectly acceptable. If this is true, then it is natural to wonder what those conditions are and how they interact with the formal mechanisms underlying passivization. Similarly, why don’t all transitive verbs alternate with an unaccusative variant where the DP complement of the verb is grammaticized as a subject rather than a direct object? In terms of category-neutral root theory, another way of asking this question might be: how are particular instances of  $\sqrt{\text{ROOT}}$  (or their projections) restricted from merging with verbalizer morphemes of the “wrong” type, if they are restricted at all?



**Fig. 5.1** Uniform syntax for intransitive *me-* predicates



In this chapter, these questions are investigated for a class of intransitive predicates in Palauan that are formed from the prefix *me-*. I argue that these predicates do not have a uniform (thematic) argument structure but do have a uniform syntax, shown in Fig. 5.1. On this analysis, the predicates are all syntactically unaccusative. The single argument DP of each predicate is base-generated in its complement position as an internal argument, rather than being introduced as an external argument in the specifier of *vP*. The differences between these morphologically similar but syntactically distinct subclasses of intransitive predicates arise both from the features of the particular instance of intransitive *v/a* that merges with  $\sqrt{P}$  as well as from the features inherent to the root. In line with the analysis of transitive verbs developed in Chap. 3, I propose that there are at least two instances of the intransitive verbalizer *v* and at least one instance of an adjectivalizer *a* that are all spelled out as *me-*; these are listed in (248).

(248) SOME INTRANSITIVE FUNCTIONAL HEADS CORRESPONDING TO *me-*:

- a. *Passive v*: Forms passive verbs which license either implicit (null) or oblique (PP) external arguments. If the external arguments are agents, they may in turn license agent-oriented adverbials and purpose infinitival modifiers.
- b. *Unaccusative v*: Forms unaccusative verbs with no implicit or overt external arguments. Can appear in the *di ngii*-predication construction.
- c. *Stative a*: Forms property-denoting stative adjectives, which neither license implicit/oblique external arguments nor appear in the *di ngii*-predication construction.

The chapter is laid out as follows. In Sect. 5.1, I frame the investigation by introducing the class of intransitive *me-* predicates and summarizing some of the conclusions about them reached in the descriptive and theoretical literature. In Sect. 5.2, I present evidence for a class of passive *me-* verbs, drawing on evidence from oblique (external) arguments in PPs (cf. English passive *by*-phrase PPs) and modifiers licensed

by implicit agents, e.g., adverbials like *carefully* and *eagerly* and purpose infinitival modifiers like [*PRO to please the guests*] or [*PRO to collect the insurance money*]. In Sect. 5.3, a diagnostic for (anticausative) unaccusative verbs is introduced, which I call *di ngii*-predication. It is shown that *di ngii*-predication is incompatible with the modifiers that diagnose implicit arguments, suggesting that implicit arguments are licensed only in Palauan passive *v*Ps and not in unaccusative *v*Ps, reflecting the familiar distinctions between passives and unaccusatives in other better-studied languages. Section 5.4 briefly considers the class of adjectives also formed from the prefix *me-*, showing that they pattern neither with passive *me-* verbs nor with unaccusative *me-* verbs, as they do not pass the tests for implicit arguments and cannot appear in the *di ngii*-predication construction.

In Sect. 5.5, I lay the foundation for the analysis of the three subtypes of *me*-predicates like those of von Stechow (1995), Kratzer (1996), and Alexiadou and Anagnostopoulou (2004), in which the behavior of each subtype is traceable to the syntactic configurations in which the predicates may appear. Section 5.6 discusses the predictions that the analysis makes about transitivity alternations (cf. Dowty 1979; Chierchia 2004 [1989]; Levin and Rappaport Hovav 1995: Chap. 3; Pesetsky 1995; Reinhart 2000; Alexiadou 2010)—like those briefly explored for  $\psi$ -idioms in Chap. 4, Sect. 4.3.1. The chapter concludes by exploring the implications of the analysis for the theory of how verbs and lexical heads more generally project layers of functional structure above them, and how this structure can and cannot be used to build words and predicates in the syntax.

## 5.1 A History of Palauan *me*- Intransitives

Many Palauan transitive verbs have a corresponding intransitive *basic form* (Josephs 1997: 211–220).<sup>3</sup> Some pairs consisting of a transitive prefix and its corresponding basic form prefix are shown in Table 5.1.<sup>4</sup> Alternations between a transitive variant and a basic variant display a contrast in how the internal argument—shown in *italics* in (249) and (250)—is grammaticized. The internal argument is the direct object in the transitive variant in (249), but it is subject in the basic variant, e.g., in (250).

<sup>3</sup>This is also known as the *ergative form* in Josephs (1975: 131–136, 1990: xxx–xxx) and the *processive form* in Josephs (1999: 28–29).

<sup>4</sup>An anonymous reviewer asks whether the basic form prefixes listed in Table 5.1 are lexically or phonologically conditioned allomorphs. The form *o-* is clearly a phonologically conditioned allomorph, appearing before stems that begin with /m/ or /b/. I suspect that the basic form prefix is universally *me-* underlyingly, but it can combine with other morphology that sometimes obscures the underlying forms. For a more transparent example, the transitive causative prefix *omek-* and its corresponding basic form *muk-* are actually complex and include the causative morphology *uek-* inside of *oN-* or *o-*. What is less clear to me is the underlying structure internal to the transitive prefixes *ol-* and *ou-*. If this were better understood, it might be possible to argue for a unified morphological analysis of the basic form prefix as *me-*. I leave this aside for future work.

**Table 5.1** Some transitive prefixes and their corresponding basic form prefixes

(Imperfective) Transitive prefix	Basic form prefix
<i>meN-</i>	<i>me-</i>
<i>oN-</i>	<i>o-</i>
<i>omek-</i> ( <i>oN-</i> + <i>uek-</i> )	<i>muk-</i> ( <i>me-</i> + <i>uek-</i> )
<i>ol-</i>	<i>mo-</i>
<i>ou-</i>	<i>mo</i> <sup>a</sup>

<sup>a</sup>Transitive verbs in *ou-* are relatively idiosyncratic. Many verbs in *ou-* are formed from roots borrowed from Japanese and English. Basic forms of transitive *ou-* verbs are not universally accepted among Palauan speakers. Those who accept them seem to prefer the *mo-* prefix for the basic form, though I have elicited data in which both transitive and basic forms are formed using the *ou-* prefix.

(249) A chad a mla **meleseb** er a blai el me er a eou.  
 D person TOP AUX burn.IMPF ACC D building L come P D space.below  
 “Somebody has burned the building down.”

(250) A blai er a Ngerchemai a **me-seseb** el me er a eou.  
 D building P D Ngerchemai TOP INTR-burn L come P D space.below  
 “Building in Ngerchemai burns down.” [Headline in *Roureor Belau*, 22 May 2002]

The English translations I have provided in (249) and (250) suggest that the pair of verbs *meleseb* and *meseseb* might be alternants in a causative–inchoative alternation, similar to English *somebody broke something* (transitive) versus *something broke* (intransitive). But unlike *break* and *break*, the two verbs in (249) and (250) are morphologically distinct; the transitive alternant is formed from the prefix *meN-* (triggering nasal substitution in the stem) while the intransitive alternant is formed from the prefix *me-*. It’s natural to wonder whether the alternation between *meleseb* and *meseseb* might not also be analyzed as a voice alternation with morphologically distinct active and passive forms, rather than causative and inchoative forms.

This question has continually puzzled Palauan researchers over the past few decades. In the Palauan literature, basic forms like *meseseb* in (250) have been analyzed variably as ergative (unaccusative) verbs (Wilson 1972a, b; Josephs 1975, 1990), passives (Waters 1980; Georgopoulos 1986, 1991), and even as a sort of hybrid between unaccusatives and passives (Flora 1974; Lemaréchal 1991; Gibson 1993; Josephs 1997, 1999). From the point of view of morphology, basic forms are created using different verbalizer prefixes from those of their corresponding transitive counterparts, but with the same roots, e.g.,  $\sqrt{\text{SESEB}}$  “burn” in (249) and (250).

In Sects. 5.2–5.4, it is shown that the syntactic status of basic forms created using *me-* (i.e., whether they should be properly analyzed as passives, unaccusatives, or something else altogether) is much more transparent if the lexical semantics of roots are taken into account. Various syntactic and semantic irregularities among members of the class of intransitive *me-* predicates suggest that they do not constitute a syntactically homogeneous class, despite the fact that they are all formed from what appears

to be the same prefix. I cite evidence for a (minimally) three-way distinction between passive *me-* verbs, unaccusative *me-* verbs, and stative *me-* adjectives, showing that syntactic diagnostics can distinguish the three subclasses. In a sense, I demonstrate that the conclusions about *me-* predicates drawn by all of the previous researchers were correct, just not for every member of the class. The theoretical contribution is that the relation between functional heads and their complements is best analyzed as something like extended projection with feature unification, rather than selection, which can predict the syntactic behavior of newly coined predicates based solely on their understood lexical semantics.

## 5.2 Evidence for a Subclass of Passive *me-* Verbs

Since the publication of Josephs's (1975) groundbreaking *Palauan Reference Grammar*, the status of the passive in Palauan has been a matter of some debate (see also Wilson 1972a, b). Two different constructions have alternately been called a "passive" in the Palauan literature.

Consider the first construction, represented in (251) below. There is a DP occupying a pre-verbal topic position, which is co-referent with the internal argument, a resumptive pronoun (again, the internal argument is *italicized*). The internal argument resumptive pronoun is a direct object, and it is marked with the accusative case marker *er*. The external argument (which is often null *pro*) remains in a post-verbal position and triggers irrealis subject agreement because the topic is a non-subject (see Chap. 1, Sect. 1.2.2.4). This construction has been analyzed as a passive (Wilson 1972b: 144–148; Josephs 1975: 141–143, 400–407), but it has also been called "object topicalization" (Waters 1980; Georgopoulos 1986, 1991), and "pre-passive" (Gibson 1993).

- (251) a. [A tech-el a charm ]<sub>i</sub> a le-bo **longa** er  
 [D flesh-3SGP D animal ] TOP 3S.IRR-AUX.FUT 3S.IRR.eat.IMP ACC  
*ngii*<sub>i</sub> a rubak.  
 it D old.man  
 "The meat will be eaten by the old man." (lit. "The meat, the old man will eat it.")
- b. [A telkib er a kerrekar ]<sub>i</sub> a **k-ultaut** er *ngii*<sub>i</sub>.  
 [D some P D wood ] TOP 1SGS.IRR-PAST.ignite.IMP ACC it  
 "Some of the wood I burned up." (lit. "Some of the wood, I burned it up.")  
 [*Chedaol Biblia*, Isaiah 44:19]

In the second construction, represented in (252), the internal argument (again *italicized*) has been promoted to serve as subject. It occupies a post-verbal position and triggers subject agreement. The external argument may optionally be included

in an oblique PP headed by the preposition *er*, which can intervene between the verb and the subject due to the subject's having moved to Spec TP, as I argued in Chap. 2.

- (252) a. Ng/\*Te                      mo              **me-kang** (er a re-okiaksang) a  
 3SG=/\*3PL.+HUM= AUX.FUT INTR-eat (P D PL-guests) D  
*tech-el a charm.*  
 flesh-3SGP D animal  
 “The meat will be eaten (by the guests).”
- b. Ng/\*Te                      mo              **me-ngai** (er a rubek-uk)  
 3SG=/\*3PL.+HUM= AUX.PERF INTR-bring (P D PL.older.brother-1SGP)  
*a telkib er a kerrekar.*  
 D some P D wood  
 “Some of the wood will be brought (by my older brothers).”

Following the conclusions of Waters (1980) and nearly all subsequent work, including Josephs's more recent work (see Josephs 1994, 1997, 1999), I treat the construction in (251) as object topicalization, with the associated properties and structure described in Chap. 1, Sect. 1.2.2.5. The verbs in (251) are clearly transitive. I focus instead on verbs like those in (252), which have reduced valence and clear promotion of the internal argument to subject.

The question at issue is how we can tell that the construction in (252)—which includes the *me*- verbs *mekang* “be eaten” (cf. *mengang* “eat,” Josephs 1990: 171) and *mengai* “be brought” (cf. *melai* “bring,” Josephs 1990: 152)—is a passive construction. On such an analysis, the *me*- prefix could be analyzed as a passive morpheme (cf. Baker et al. 1989) which does not license structural Accusative Case or introduce an external argument DP, but may license oblique or implicit arguments. But how do we know that these are passives, rather than unaccusatives?<sup>5</sup> The issues surrounding the diagnosis of intransitive verbs as either passive or unaccusative have by now been explored in English and many other languages, and it is the presence of implicit arguments that has traditionally been seen to distinguish passives from unaccusatives (i.a., Roberts 1986; Roeper 1987). Generally, the differences between the two types of intransitive verb have been argued to include the following.

- Passives can express an external argument either implicitly or overtly in an oblique PP, while unaccusatives cannot.
- Implicit and oblique agents of passives can license agent-oriented adverbials, which are incompatible with unaccusatives, as unaccusatives cannot license agents of any kind.
- Implicit and oblique agents of passives can bind a null PRO in the subject position of purpose infinitival clause modifiers, which are again incompatible with unaccusatives.

<sup>5</sup>The unaccusative analysis is suggested by the “ergative” terminology employed in Josephs (1975) and Josephs (1990), but rescinded in favor of a passive analysis in Josephs (1997: 212).

Below, I run through the three tests one by one, showing that in Palauan, some *me*-predicates pass each test more clearly than others do.

### 5.2.1 *The Elusive by-phrase*

Indo-European passives optionally allow an “internalized” external argument to be expressed overtly in an oblique argument PP: this is the so-called “*by*-phrase,” examples of which are given in (253). The DP in an oblique argument PP corresponds to whatever would have been the subject of the corresponding transitive. It is often an agent, as in (253a), but it need not be; for instance, it can also be a causer as in (253b) or an instrument as in (253c).

- (253) a. The national anthem was sung (**by the students**).  
 b. The door was opened (**by a freak gust of wind**).  
 c. My finger was accidentally sliced open (**by a sharp knife**).

Various researchers who have investigated the Palauan passive—i.e., the type of verb appearing in (252)—have reported mixed judgments for oblique argument PPs, which I will call *er*-phrases, i.e., the Palauan correlates of English *by*-phrases. Josephs (1975: 134–135) reports that some speakers find them “awkward.” DeWolf (1979: 101) says that the agent is “not usually indicated,” which he follows up in a later study (1988: 171) with a stronger claim, namely that the specification of an agent argument in an *er*-phrase is “disallowed.” Gibson (1993: Chap. 5), on the other hand, reports no problems eliciting *er*-phrases “beyond a preference to omit them.” In my own fieldwork, I initially had some trouble eliciting *er*-phrases due to the tendency for Palauan speakers to avoid passives in neutral contexts altogether,<sup>6</sup> but I eventually found that the relative (un)acceptability of an oblique *er*-phrase depends largely on the verb that it co-occurs with.<sup>7</sup>

Some examples of *er*-phrases containing DPs with various thematic relations to the event denoted by the *v*P are given in (254). Like English *by*-phrases, the *er*-phrase can contain agents (254a–b), causers (254c), instruments (254d), and anything else that could serve as subject of the transitive variant.

<sup>6</sup>Palauan speakers found it odd that I was trying to elicit *er*-phrases in root, monoclausal passives when I could express the same sentence using a synonymous and much less marked active transitive structure. It became much easier to elicit *er*-phrases once I began eliciting passives in periphrastic biclausal causative sentences, as these include the causative verb *meruil* “make; cause,” which requires that the accusative case-marked causee DP in the matrix clause be identified with the subject of the embedded clause.

<sup>7</sup>It has been suggested to me (Sandy Chung, p.c.) that one possible source of the variability among speakers in terms of their acceptance of *er*-phrases might be interference from English, a possibility

- (254) a. A “*Belau er Kid*” a mo me-chitakl (**er a re-ngalek er a**  
 D Palau P 1PL.INCL TOP AUX.FUT INTR-sing (P D PL-child P D  
**skuul**).  
 school)  
 “*Belau er Kid* will be sung (by the students).”
- b. Aike [el mlok-oad **er a tebelik el charm** ] a dimlak  
 those [L PAST.PASS.CAU-die P D wild L animals ] TOP NEG.PAST  
 kulab el eko omes-kau.  
 1SGS.IRR.PAST.carry L go bring.PF-2SGO  
 “Those that were killed by wild animals, I didn’t take them to you.”  
 [Chedaol Biblia, Genesis 31:39]
- c. Ng mo ua kerrekar el mla me-dul **er a ngau** a  
 3PL.–HUM= AUX.FUT like trees L AUX INTR-burn P D fire D  
 rechel-el, me a bng-al a m-o-sebek  
 branches-3PL.–HUMP and D flowers-3PL.–HUMP TOP PASS-CAU-fly  
**er a eolt** el mo cheroid.  
 P D wind L go away  
 “They will be like trees whose branches are burned by fire, whose blossoms  
 are blown away by the wind.” [Chedaol Biblia, Job 15:30]
- d. Ng rul-leterir el mo meruul er a bleob el  
 3SG= make.PF-3PL.+HUMO L go make.IMPF ACC D idol L  
 okesi-ul ngike el kot el charm el *mil*-temall **er a saider**  
 image-3SGP that L first L beast L PAST.INTR-wound P D sword  
 e ngdi ng *silobel*.  
 then but 3SG= PAST.survive  
 “The beast told them to build an image in honor of the beast that had been  
 wounded by the sword and yet lived.” [Chedaol Biblia, Revelations 13:14]

(254) demonstrates that oblique *er*-phrases can be licensed in clauses with intransitive *me*- verbs, both in elicited contexts as in (254a) and in naturally occurring contexts like those in (254b–d). Co-occurrence with *er*-phrases suggests that at least some *me*- verbs are passives rather than unaccusatives.

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(Footnote 7 continued)

that is also mentioned by Josephs (1999: 29). That is, *er*-phrases might have only come into the language recently as a result of the increasing tendency for Palauans to become bilingual during the U.S. administration of Palau as a U.N. Trust Territory. We may find that *er*-phrases will become increasingly accepted the longer English is widely spoken in Palau, but *er*-phrases were already attested as early as the 1940s (Capell 1949), and Palau only became a U.N. Trust Territory in 1947, shortly after World War II. It seems likely to me that *er*-phrases existed in Palauan before English became widely spoken in Palau.

### 5.2.2 Licensing Agent-Oriented Adverbials

Agent-oriented adverbials are licensed by the syntactic presence of an overt or implicit agent. The conclusion that passives can license implicit agents is based largely on evidence from agent-oriented modifiers that appear even in the absence of an overt agent DP. The logic is that if passives license agents, and agents license agent-oriented adverbials, then the co-occurrence of a passive form and an agent-oriented adverbial diagnoses the syntactic presence of an agent, even if no agent DP is pronounced. Note the contrast in (255).

- (255) a. I sold the book voluntarily.  
 b. The book was sold voluntarily. [Roberts 1986: 70, ex. 4a]  
 c. \*The book sold voluntarily. [Roberts 1986: 70, ex. 4b]

In (255a), the presence of the overt agent *I* licenses the presence of the adverbial *voluntarily*. The fact that the adverb *voluntarily* is also licit in (255b), which contains a passive verb, suggests the presence of an implicit agent. In sentence (255c), which contains an unaccusative verb, modification by the adverbial *voluntarily* is ungrammatical.

The test is a clear diagnostic for differences in behavior between the class of passives and the class of unaccusatives. And since licensing of agent-oriented adverbials depends on a universal thematic relation (agent), we should be able to use such adverbials in different languages to diagnose the presence of implicit agents. But in Palauan, the results are somewhat mixed. In some cases, agent-oriented adverbials are perfectly acceptable, as in (256).

- (256) a. A Belau er Kid a (**blak a reng-rir el**) mo me-chitakl.  
 D Palau P 1PL.INC TOP (eager D hearts-3PLP L) AUX.FUT INTR-sing  
 “*Belau er Kid* will be sung (eagerly).”  
 b. A siasing a (**dachelbai el**) mil-chesbereber.  
 D picture TOP (skillful L) PAST.INTR-paint  
 “The picture was painted (skillfully).”  
 c. A blai a (**kerekikl el**) m/uke-dechor.  
 D house TOP (careful L) PAST.PASS.CAU-upright  
 “The house was built (carefully).”

(256) contains examples of *me-* verbs that fall into the semantic class of creation verbs, like *mechitakl* “be sung” and *mechesbereber* “be painted.” Presumably, the events expressed by verbs of creation require an initiator (typically an



agent).<sup>8</sup> Even in their intransitive forms, agent-oriented adverbials are very readily accepted with these verbs, suggesting the syntactic presence of implicit agents in (256a–c).

Other intransitive *me-* verbs like *meseseb* “burn/be burned” and *obok*<sup>9</sup> “open/be opened” do not require agents but may express them optionally in oblique *er-*phrase PPs. In the absence of *er-*phrases, agent-oriented adverbials are only sometimes accepted—certainly not always. However, speakers who accept *er-*phrases with these verbs almost always permit agent-oriented adverbials as well. Consider the data in (257).

- (257) a. A blai a (?**blak a reng-ul el**) mil-seseb (er a rubak).  
 D house TOP (?eager D heart-3SGP L) PAST.INTR-burn (P D old.man)  
 “The house (was) (?eagerly) burned down (by the old man).”
- b. A chesimer a (?**kerekiki el**) ule-bok (er a sensei).  
 D door TOP (?careful L) PAST.INTR-open (P D teacher)  
 “The door (was) (?carefully) opened (by the teacher).”

Some sense might be made of the pattern in (257) if we consider the differences between unaccusative/passive pairs like *open/be opened*, as in (258).

- (258) a. The door (\*carefully) opened (\*by the guy carrying the heavy file cabinet).  
 UNACCUSATIVE
- b. The door was (carefully) opened (by the guy carrying the heavy file cabinet).  
 PASSIVE WITH OBLIQUE OR IMPLICIT AGENT
- c. The door was (\*carefully) opened by a freak gust of wind.  
 PASSIVE WITH OBLIQUE CAUSER

In (258a), the unaccusative *open* does not license an external argument (implicit or oblique), and so agent-oriented adverbials like *carefully* cannot be licensed either. In (258b), the passive *be opened* permits an implicit or oblique agent, and the adverb *carefully* can thus appear without restriction. However, the passive *be opened* in (258c) licenses an oblique causer argument rather than an oblique agent, and this causer argument fails to license the adverb *carefully*.<sup>10</sup>

To account for the variability in the judgments of (257a–b), I would like to suggest that since events of burning or opening can happen spontaneously and do not

<sup>8</sup>See Ramchand (2008: 24) for discussion of the role of initiation and initiators in event semantics. In the following discussion, I use the term “initiator” to describe a set of external argument  $\theta$ -roles that includes (volitional) agents, (non-volitional) causers, certain instruments, etc.

<sup>9</sup>Recall that *me-* alternates with its allomorph *o-* when attaching to labial-initial stems.

<sup>10</sup>This is not surprising given that passive is a voice, which affects DPs with particular grammatical relations. It does not operate on thematic roles, such as agent or causer. It is worth emphasizing

require initiators (unlike events of creation, such as singing or painting), intransitive *me-* verbs expressing such events are ambiguous between passive and unaccusative interpretations. That is, if an implicit or oblique initiator is syntactically present either in an *er*-phrase or via inference due to the presence of licensed agent-oriented adverbials, then a verb like *meseseb* in (257a) can be interpreted like English “be burned” (i.e., as a passive) rather than like English “burn” (i.e., as an unaccusative), and similarly for *obok* (i.e., “be opened” rather than “open”).

In the next section, it will be shown that the distribution of purpose infinitival clause modifiers patterns exactly the same way as the distribution of agent-oriented adverbials, seemingly confirming the ambiguity between a passive and unaccusative reading of certain intransitive verbs.

### 5.2.3 Control into Purpose Infinitival Clause Modifiers

Another type of evidence for implicit arguments comes from the licensing of null PRO subjects of purpose infinitival clause modifiers (see Jespersen 1940; Faraci 1974; Williams 1980; Bach 1982; Kirkpatrick 1982; Jones 1985, 1991; Roberts 1986; Roeper 1987). Examples from English with different syntactic frames are given below in (259).

- (259) a. I sold the book [PRO to make money].  
 b. The book was sold [PRO to make money]. [Roberts 1986: 70, ex. 5a]  
 c. The book was sold (by Amazon.com) [PRO to make money].  
 d. \*The book sold [PRO to make money]. [Roberts 1986: 70, ex. 5b]

The null PRO in a purpose infinitival clause must be bound by the volitional (or at least deliberate) initiator of the event modified by the purpose clause. The initiator can either be an overt DP subject of a transitive verb as in (259a), a null implicit argument of a passive verb as in (259b), or an oblique argument of a passive verb as in (259c). Since unaccusative verbs do not license overt or implicit initiator arguments, there is no initiator to bind PRO in the purpose clause, so purpose clauses are incompatible with unaccusatives. Consequently, if a purpose clause is acceptable, the verb may be analyzed as a passive—but not as an unaccusative. If a purpose clause

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(Footnote 10 continued)

that although agent-oriented adverbials (and purpose infinitival clause modifiers) are frequently used to diagnose differences between passives and unaccusatives, they cannot sufficiently diagnose all passives; (258c) provides direct evidence that this is the case. While it may be true that no unaccusative can license an implicit agent, it is also certainly not the case that every passive can, since not all implicit arguments must be agentive; see, e.g., (246), (247), and (253b–c).

is unacceptable, it is possible that the verb might be analyzed either as a passive or as an unaccusative because the purpose clause might of course be ruled out for other reasons.

Interestingly, the variability in judgments of agent-oriented adverbials in Sect. 5.2.2 manifests itself once again once the distribution of purpose clauses is considered. That is, when they co-occur with intransitive *me-* verbs whose lexical semantics require that the event have an initiator—like *mechitakl* “be sung,” *mechesbereber* “be painted,” or *mlukedechor* “be built” in (260)—purpose infinitivals are generally accepted.

- (260) a. A Belau er Kid a mo me-chitakl (el oldeu er  
D Palau P IPL.INC TOP AUX.FUT INTR-sing (L make.happy.IMPF ACC  
a re-okiaksang PRO).  
the PL-guest ARB)  
“*Belau er Kid* will be sung (to please the guests).”
- b. A siasing a mil-chesbereber (el omekord er a rum PRO).  
D picture TOP PAST.INTR-paint (L decorate.IMPF ACC D room ARB)  
“The picture was painted (to decorate the room).”
- c. A blai a m/uke-dechor (el olengeseu er a telungalek er  
D blai TOP PAST.PASS.CAU-upright (L help.IMPF ACC D family P  
ngak PRO).  
me ARB)  
“The house was built (to help my family).”

Even in the absence of an overt initiator, the purpose clauses *el oldeu er a reokiaksang* “to please the guests” in (260a), *el omekord er a rum* “to decorate the room” in (260b), and *el olengeseu er a telungalek er ngak* “to help my family” in (260c) are fully acceptable to nearly all speakers I consulted.

However, in sentences containing passives of verbs with *optional* agents, like *meseseb* “burn/be burned” in (261a) and *obok* “open/be opened” in (261b), purpose infinitivals are not always acceptable. However, they are more readily accepted in the presence of an overt oblique agent than they are when the agent is implicit (and null).

- (261) a. A blai a mil-seseb (er a rubak) (?el ngmai a udoud el  
D house TOP PAST.INTR-burn (P D old.man) (?L get the money L  
insurance PRO).  
insurance he)  
“The house (was) burned down (by the old man) (?to collect the insurance money).”

- b. A chesimer a ule-bok (er a ta er a re-sensei) (?el  
 D door TOP PAST.INTR-open (P D one P D PL-teacher) (?L  
**mengelekolt er a klas PRO**.  
 cool.down.IMPF ACC D classroom s/he)

“The door (was) opened (by one of the teachers) (?to cool down the class-  
 room).”

Why should the acceptability of purpose clauses depend on the verb that describes the event modified by the purpose clause? And furthermore, why does the variability in acceptability of purpose clauses align so closely with the variability in acceptability of agent-oriented adverbials? Again, I propose that this variability is due to the lexical semantics of the verbs involved.

Verbs whose lexical semantics require a volitional or deliberate initiator but select only theme complements—like the creation verbs *sing*, *paint*, or *build*—can be transitive whenever the external argument DP (i.e., the subject) is linked to the initiator thematic role. When such verbs are intransitive, however, their initiators must be implicit or oblique arguments, and the theme DP is promoted to subject. Since unaccusatives do not license implicit or oblique arguments, verbs that require thematic initiators cannot be interpreted as unaccusatives, but they can freely form passives. Note that similar contrasts can be observed more easily in English as unaccusatives and passives are morphologically distinct, e.g., in (262) through (264).

- (262) a. Aretha Franklin **sang** *My Country 'Tis of Thee* at Barack Obama's 2009 presidential inauguration ceremony.  
 b. *My Country 'Tis of Thee* **was sung** at Barack Obama's 2009 presidential inauguration ceremony (by Aretha Franklin).  
 c. \**My Country 'Tis of Thee* **sang** at Barack Obama's 2009 presidential inauguration ceremony (by Aretha Franklin).
- (263) a. Vincent van Gogh **Painted** *Starry Night* in 1889.  
 b. *Starry Night* **was painted** (by Vincent van Gogh) in 1889.  
 c. \**Starry Night* **Painted** (by Vincent van Gogh) in 1889.
- (264) a. We **built** this city on rock and roll. [Starship, “We Built This City”]  
 b. This city **was built** on secrets.  
 [Search the City, “Detroit Was Built On Secrets”]  
 c. \*This city **built** on secrets/on rock and roll.

Verbs whose lexical semantics allow (but do not require) volitional or deliberate initiators and select theme complements, like *burn* or *open*, have at least three

options: they may be transitive, passive, or unaccusative. If this lexical semantic account is on the right track, then the variability in the judgments of agent-oriented adverbials and purpose infinitival clause modifiers might stem from a general lack of uniformity of interpretation. That is, in the absence of a context, some Palauan speakers might naturally interpret intransitive *me-* verbs formed from a root meaning “burn” or “open” as either preferentially passive or preferentially unaccusative. The corresponding English verbs *burn* and *open* also permit all three options (transitive, passive, and unaccusative), as shown in (265) and (266).

- (265) a. The Great Chicago Fire **burned** buildings across a span of 34 city blocks.  
 b. Buildings across a span of 34 city blocks **were burned** (in/by the Great Chicago Fire).  
 c. Buildings across a span of 34 city blocks **burned** (in/\*by the Great Chicago Fire).
- (266) a. The establishment of the Schengen Area **opened** many European countries’ borders.  
 b. Many European countries’ borders **were opened** (with/by the establishment of the Schengen Area).  
 c. Many European countries’ borders **opened** (with/\*by the establishment of the Schengen Area).

The pattern emerging thus far is that a semantically delimited subclass of Palauan verbs formed from the prefix *me-* appears to be compatible with a passive interpretation but not an unaccusative interpretation. Other intransitive *me-* verbs are much less clearly passives.

### 5.3 A Diagnostic for Unaccusative *me-* Verbs

As we saw above in Sect. 5.2, there are Palauan *me-* verbs that seem to pattern like passives in other languages with respect to their co-occurrence with oblique/implicit arguments, agent-oriented adverbials, and purpose infinitival clause modifiers. But other *me-* verbs resist co-occurring with all of these; speakers differ widely in their judgments of how acceptable they are. To explain this variability, I proposed that such verbs are ambiguous between passive and unaccusative interpretations in neutral contexts. In this section, I present a diagnostic that I call *di ngii*-predication that can help us to distinguish passives from unaccusatives more reliably. *Di ngii*-predication is the construction used to convey the meaning “by itself; own its own,” and it effectively diagnoses the *absence* of implicit initiator arguments. As a result, passive

verbs like *mukedechor* “be built” cannot appear in *di ngii*-predications, as shown in (267), while unaccusatives like *mad* “die” are perfectly acceptable in *di ngii*-predications, as in (268).

(267) a. A beches el bli-mam a **m/ukedechor** (er a  
D new L house-1PL.EXCP TOP PAST.INTR.CAU.upright (P D  
dem-ak).  
father-1SGP)

“Our new house was built (by my father).”

b. \*Ng **di mle ngii** [a beches el bli-mam  
3SG= only AUX.PAST itself [D new L house-1PL.EXCP  
[el **m/ukedechor** ]].  
[L PAST.INTR.CAU.upright ]]

“Our new house (was) built on its own.”

(268) a. A ngikel er a omoachel a **m/ad** (\*er a chad er a chei).  
D fish P D river TOP PAST.die (\*P D man P D sea)

“The fish in the river died (\*by the fisherman).”

[cf. *Chedaol Biblia*, Exodus 7:21]

b. Ng **di mle ngii** [a ngikel er a omoachel  
3PL.—HUM= only AUX.PAST themselves [D fish P D river  
[el **m/ad** ]].  
[L PAST.die ]]

“The fish in the river died (on their own).”

In (267), the verb *mukedechor* “be built” is the passive of a creation verb and requires an oblique or implicit initiator. Since *di ngii*-predication in intransitives is incompatible with oblique and implicit initiators, and creation verbs require initiators, (267b) is ungrammatical because it contains a creation verb. In (268), on the other hand, the verb *mad* “die” is incompatible with initiators, as shown in (268a). As such, it is free to appear in a *di ngii*-predication, as shown in (268b).

### 5.3.1 Palauan *di ngii*-Predication

The Palauan *di ngii*-predication diagnostic asserts that there is no external argument that initiates the event denoted by the predicate. *Di ngii*-predication is closely related to similar *on its own*-type diagnostics in other languages, like

the English *by itself/on its own* diagnostic (Delancey 1984; Levin and Rappaport Hovav 1995) in (269), the Italian *da sé* diagnostic (Chierchia 2004 [1989]) in (270), the German *von selbst/von allein* diagnostic (Härtl 2003; Schäfer 2008) in (271), the (Modern) Greek *apo mono tu* diagnostic (Alexiadou and Anagnostopoulou 2004), the Ukrainian *sam po sobi* diagnostic (Lavine 2010) in (273), the Icelandic *af sjálfu sér* diagnostic (Wood 2015) and probably many others.

## (269) ENGLISH:

- a. The door opened **by itself**. [Levin and Rappaport Hovav 1995: 88, ex. 17b]  
 b. \*The door was opened **by itself**. [Cortés Rodríguez 2008: 267, ex. 45]

## (270) ITALIAN:

- a. La barca è affondata **da sé**.  
 the boat is sunk by itself  
 “The boat sank by itself.” [Chierchia 2004: 43, ex. 42b]
- b. \*La barca è stata affondata **da sé**.  
 the boat is been sunk by itself  
 (“The boat was sunk by itself.”) [Chierchia 2004: 43, ex. 42c]

## (271) GERMAN:

- a. Der Teller zerbrach **von selbst**.  
 the plate broke by itself  
 “The plate broke by itself.” [Härtl 2003: 895, ex. 26a]
- b. \*Der Teller wurde **von selbst** zerbrochen.  
 the plate became by itself broken  
 (“The plate was broken by itself.”) [Härtl 2003: 895, ex. 26b]

## (272) (MODERN) GREEK:

- a. To pani skistike **apo mono tu**.  
 the cloth tore by itself  
 “The cloth tore by itself.”  
 [Alexiadou and Anagnostopoulou 2004: 123, ex. 14c]
- b. \*To vivlio diavastike **apo mono tu**.  
 the book read.PASS by itself  
 (“The book was read by itself.”)  
 [Alexiadou and Anagnostopoulou 2004: 122, ex. 14a]

## (273) UKRAINIAN:

- a. Vaza                    rozbyla-sja                    **sama po sobi.**  
 vase.NOM.FEM broke.FEM.SG-REFL by.itself.NOM.FEM  
 “The vase broke by itself.” [Lavine 2010: 110, ex. 23]
- b. \*Vazu                    bulo rozbyto                    **samu po sobi.**  
 vase.ACC.FEM was broken.PASS by.itself.ACC.FEM  
 (“The vase was broken by itself.”) [Lavine 2010: 110, ex. 22]

## (274) ICELANDIC:

- a. Rúðan                    splundraðist **af sjálfu sér.**  
 window.the.NOM shattered.AC by itself  
 “The window shattered by itself.” [cf. Wood 2015: 67, ex. 14a]
- b. \*Rúðunni                    var splundrað **af sjálfu sér.**  
 window.the.DAT was shattered.PASS by itself  
 (“The window was shattered by itself.”) [cf. Wood 2015: 67, ex. 13a]

In the (a) sentences in (269)–(274), there is no external initiator of the event, and each *on its own*-type modifier describes the subject of an unaccusative verb. In the (b) sentences, there is presumably an implicit initiator of each event, rendering *on its own*-type modification ungrammatical. Palauan *di ngii*-predication works similarly. Consider the examples in (275).

- (275) a. Ng **di ngii** [a chesimer ] [el **o-bok** ].  
 3SG= only itself [D door ] [L INTR-open ]  
 “The door opens on its own.” (lit. “The door is just itself, which opens.”)
- b. Ng **di mle ngii** [a butiliang ] [el **ule-beu** ].  
 3SG= only AUX.PAST itself [D bottle ] [L PAST.INTR-break ]  
 “The bottle broke on its own.” (lit. “The bottle was just itself, which broke.”)

A *di ngii*-predication is formed by merging a reflexive pronoun as the main predicate and modifying it with *di* “just/only,” with a co-referent subject DP in Spec TP. The DP predicate *di ngii* “only itself” also has a non-restrictive relative clause modifier that adjoins to the predicate DP (cf. Fig. 1.5), which contains the information about the event that the subject participates in. The relative clause then extraposes to the right of the subject.<sup>11</sup> The structure is demonstrated schematically in Fig. 5.2, which corresponds to the sentence in (275a).

<sup>11</sup> At an earlier point in this research, I analyzed the relative clause as attaching to the subject DP, rather than the *di ngii* predicate phrase. An anonymous reviewer inspired the alternate analysis



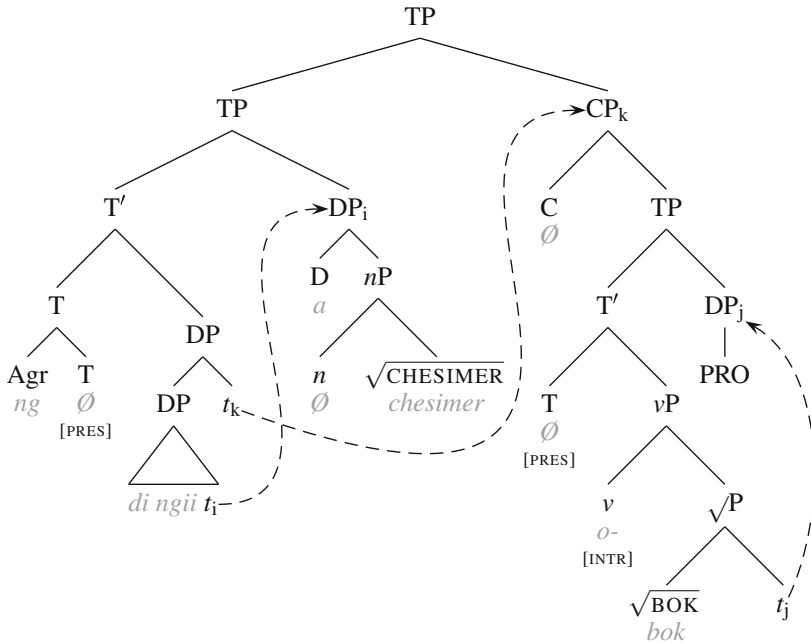


Fig. 5.2 Structure of *di ngii*-predications

Applying this diagnostic to Palauan verbs with precision is complicated by two factors. The first is that passive and unaccusative verbs are morphologically identical (if the analysis that is gradually unfolding is on the right track); I address this in Sect. 5.3.2. The second is that some *on its own*-type modifiers are ambiguous between a *without external help* interpretation, as in (276), and an *alone* interpretation, as in (277). And some sentences are compatible with both interpretations, such as (278).

(Footnote 11 continued)

advocated here, which makes a correct prediction that my previous analysis did not make. The reviewer points out that in (279b–c) below, the relative clause attaching to the subject DP (in my earlier proposal) would have to be said to modify the null pronominal gaps in subject position. I have not seen positive evidence that this is possible anywhere else in Palauan. If the embedded clause actually attaches to the predicate phrase *di ngii* and extraposes, however, we predict that it should have no problem co-occurring with null pronominal subjects (i.e., gaps).

Although the reviewer suggested that the embedded clause originates as a complement to the pronominal head *ngii* of the predicate, I have some doubts about this, as the embedded clause is finite (tensed) as in (275b). Nevertheless, I believe that analyzing the embedded clause as a non-restrictive relative clause attaching to the DP predicate is a logical compromise and a step in the right direction semantically and syntactically. With this structure, the description of the event is located within the predicate phrase rather than predicate-externally, and the main predicate *di ngii* forms a constituent with the clause whose properties I argue interact with it. I am very grateful to the anonymous reviewer for this improvement in the analysis.

- (276) Half of my plants require fertilizer to bloom, and the other half bloom **by themselves**.

*Okay on the WITHOUT EXTERNAL HELP interpretation:* “Nothing is required for the other half of my plants to bloom.”

*Bad on the ALONE interpretation:* “The other half of my plants bloom when unaccompanied.”

- (277) The student arrived early **by herself**.

*Okay on the ALONE interpretation:* “No one else arrived early.”

*Bad on the WITHOUT EXTERNAL HELP interpretation:* “Nothing caused the early arrival.” [Deal 2009: 294, ex. 15]

- (278) The wizard disappeared **by himself**.

*Okay on the WITHOUT EXTERNAL HELP interpretation:* “Nothing caused the wizard to disappear.”

*Okay on the ALONE interpretation:* “Nothing else disappeared.”

[Deal 2009: 294, ex. 17b]

The reading that concerns us is that which is compatible with (276), where *by itself* indicates that there is no external initiator distinct from the theme. Fortunately, the *without external help* and *alone* interpretations of English *on its own/by itself* are expressed by different constructions in Palauan. The *without external help* interpretation is expressed with the *di ngii*-predication construction, as we saw above in (275) and Fig. 5.2. Some naturally-occurring examples are given below in (279).

- (279) *WITHOUT EXTERNAL HELP INTERPRETATION:*

a. A sensei a menguiu me a lechub e ng **di ngii** [a ngalek  
D teacher TOP read.IMP or 3SG= only himself [D child  
[el lmuut el chuieu-ii a kot el paragraph ]].  
[L happen.again L read.PF-3SGO D first L paragraph ]]  
“The teacher reads, or the child reads the first paragraph again **on his own**.” [CK 27]

b. [Ngii el siseball ]; a **di mle ngii** \_\_\_\_i [el me-ngai  
[it L entrance ] TOP only AUX.PAST itself <GAP> [L INTR-remove  
a chesmer-el ].  
D door-3SGP ]  
“The gate opened for them **by itself**.” [Chedaol Biblia, Acts 12:10]

- c. Ng diak a ulaoch er a Chedaol el Llechukl el sebech-el  
 3SG= not.exist D prophecy P D Holy L Scriptures L ability-3SGP  
 a chad<sub>i</sub> [el **di ngii** \_\_\_\_<sub>i</sub> [el *smaod* ]].  
 D person [L only himself <GAP> [L *VBLZ.explain.PF* ]].

“No one can explain **by himself or herself** a prophecy in the Scriptures.”

[*Chedaol Biblia*, 2 Peter 1:20]

In order to get the *alone* interpretation, there are two alternatives. The first alternative is to use a cleft with a *di ngii*-predicate, and adjoin the modifier *tang* “alone” to the predicate, as in (280). In these sentences, though, the pronominal predicate is not reflexive, as the subject is the nominalized predicate phrase in the cleft structure (see Georgopoulos 1991: 66–68).

(280) ALONE CLEFT WITH *el tang*:

- a. Ng **di mle ngii el tang** [a ngelek-ek el *chiliis* ].  
 3SG= only AUX.PAST him L alone [D child-1SGP L *PAST.run.away* ]  
 “My child ran away, alone.” (lit. “My child who ran away was just s/he alone.”)

- b. Ng **di tir el tang** [a mengoit a me-klou el  
 3SG= only them L alone [D waste.money.on.IMPF D PL-large L  
 cher-al a cheluch el mo er a Ngerulmud ].  
 prices-3SGP D gas L go P D Ngerulmud ]  
 “They alone pay the high gas prices to drive to Ngerulmud.” [URL:  
<http://okedyulabeluu.typepad.com/okedyulabeluu/2009/06/open-thread-lxxiv.html>;  
 retrieved 15 August 2015]

The second alternative also involves a cleft, but in this case the (logical) subject is clefted and modified with *di* “only,” as shown in (281). There is no pronoun involved.

(281) ALONE CLEFT OF LOGICAL SUBJECT WITH *di*:

- a. Ng **di mle ngelek-ek** [a *chiliis* ].  
 3SG= only AUX.PAST child-1SGP [D *PAST.run.away* ]  
 “My child ran away by himself.” (lit. “The (one who) ran away was only my child.”)

- b. Ng **di tirke el silobel** [a kmal di ule-briid ].  
 3SG= only those L *PAST.survive* [D very just INTR.PAST-scatter ]  
 “The survivors scattered.” [*Chedaol Biblia*, 1 Samuel 11:11]

Although the differences between the *di ngii*-predication structures corresponding to the *without external help* interpretation and the cleft structures corresponding to the *alone* interpretation may appear subtle, they clearly and consistently correlate with

the shift in meaning, in contrast to the English construction. What is important for our purposes is that the Palauan *di ngii*-predication construction in (275) and (279) unambiguously expresses the *without external help* interpretation of *on its own*-type modifiers.

### 5.3.2 Distinguishing Unaccusatives from Passives

If *di ngii*-predication has the same effect as the inclusion of *on its own*-type modifiers in the various languages cited in (269)–(274), then we would expect it to be incompatible with passives. But as was shown in Sect. 5.2, there is a problem with the identification of *me*-predicates as passives. The diagnostics that we have available to distinguish passives from unaccusatives only identify subsets of each class. As such, if it's true that passives and other intransitive verbs (including unaccusatives) can all be formed from the prefix *me*-, then we need multiple diagnostics in order to compare the results and inspect them for consistency. Combining *di ngii*-predication with the diagnostics for passives in Sect. 5.2 gives us a way to do this.

*Di ngii*-predication does not apply uniformly to sentences containing *me*- verbs. For example, if *di ngii*-predication is applied to (250), repeated below, the result is acceptable, as shown in (282).

- (250) A blai er a Ngerchemai a **me-seseb** el me er a eou.  
 D building P D Ngerchemai TOP INTR-burn L come P D space.below  
 “Building in Ngerchemai burns down.”

[Headline in *Rourear Belau*, 22 May 2002]

- (282) Ng **di mle ngii** [a blai er a Ngerchemai ]  
 3SG= only AUX.PAST itself [D building P D Ngerchemai ]  
 [el **mil-seseb** el me er a eou ].  
 [L INTR.PAST-burn L come P D space.below ]  
 “A building in Ngerchemai burned down by itself.”

The fact that *meseseb* can appear in the relative clause of a *di ngii*-predication in (282) suggests that *meseseb* patterns like an unaccusative, rather than a passive. This result is initially quite surprising considering that we saw in Sects. 5.2.2 and 5.2.3, namely that *meseseb* also patterns like a passive whenever it co-occurs with an oblique argument in an agentive *er*-phrase. I.e., agent-oriented adverbials are licensed, and the oblique argument can bind PRO in a purpose infinitival clause modifier, as shown below in (283).

- (283) A blai er a Ngerchemai a (kerekikl el) **mil-seseb** el me  
 D building P D Ngerchemai TOP (carefully L) INTR.PAST-burn L come  
 er a eou er a re-kelebus (el melai a techei PRO).  
 P D space.below P D PL-prisoner (L take.IMPF D revenge they)  
 “The building in Ngerchemai was (carefully) burned down by the prisoners  
 (to take revenge).”

But *di ngii*-predication is incompatible with external initiator arguments (implicit or overt). As such, it is expected that *di ngii*-predication will block the presence of *er*-phrases, agent-oriented adverbials, and purpose infinitival clause modifiers. Each of these predictions is borne out in (284)–(286).

- (284) *Di ngii*-PREDICATION BLOCKS *er*-PHRASES:

Ng **di mle ngii** [a blai er a Ngerchemai ] [el **mil-seseb**  
 3SG= only AUX.PAST itself [D house P D Ngerchemai ] [L INTR.PAST-burn  
 el me er a eou (**\*er a re-kelebus**) ].  
 L come P D space.below (**\*P D PL-prisoner**) ]  
 “The building in Ngerchemai burned down **on its own (\*by the prisoners)**.”

- (285) *Di ngii*-PREDICATION BLOCKS AGENT-ORIENTED ADVERBIALS:

Ng **di mle ngii** [a blai er a Ngerchemai ] [el (**\*kerekikl**  
 3SG= only AUX.PAST itself [D house P D Ngerchemai ] [L (**\*carefully**  
**el) mil-seseb** el me er a eou ]].  
 L) INTR.PAST-burn L come P D space.below ]  
 “The building in Ngerchemai (**\*carefully**) burned down **on its own**.”

- (286) *Di ngii*-PREDICATION BLOCKS CONTROL INTO PURPOSE INFINITIVALS:

Ng **di mle ngii** [a blai er a Ngerchemai ] [el **mil-seseb**  
 3SG= only AUX.PAST itself [D house P D Ngerchemai ] [L INTR.PAST-burn  
 el me er a eou (**\*el melai a techei PRO**) ].  
 L come P D space.below (**\*L take.IMPF D revenge ARB**) ]  
 “The building in Ngerchemai burned down **on its own (\*to take revenge)**.”

What the sentences in (284)–(286) show us is that *di ngii*-predication is incompatible with anything that must be licensed by implicit or oblique agents of passives. It would appear, then, that the diagnostics for implicit agents in passives and the *di ngii*-predication diagnostic together allow us to distinguish between *me*- verbs that

should be analyzed as passives (i.e., if they have implicit arguments, they must be passives and not unaccusatives) or non-passives (i.e., if they cannot have implicit arguments, they cannot be passives).

Like most diagnostics, these will not pick out the entire class of passives or unaccusatives. Since the diagnostics for implicit arguments depend on the implicit argument being agentive/volitional/deliberate/etc., and since implicit arguments in passives can have a variety of different thematic roles, some passives will not be able to license agent-oriented adverbials or purpose infinitivals. Similarly, just because a verb cannot license an implicit argument does not mean that it must be treated as unaccusative; as we will see in Sect. 5.4, stative *me-* adjectives do not license implicit arguments, but they cannot appear in *di ngii*-predications either. This aspectual restriction is probably a result of the semantics of stative eventualities, discussed further in Chap. 6. It is entirely possible that there are additional restrictions on *di ngii*-predication that prevent it from picking out the entire class of unaccusative verbs. What is important, however, is that *di ngii*-predication does help us to identify a particular subset of unaccusatives, providing empirical evidence that such a class exists and has observable properties that allow it to be distinguished from passives, despite their similar morphology.

### 5.3.3 Testing a Prediction

If *di ngii*-predication reliably identifies unaccusatives and is incompatible with external initiators, then there is a clear prediction that we can test. *Di ngii*-predication should be systematically impossible with *me-* verbs that require agents, such as creation verbs, i.e., the same verbs that invariably license agent-oriented adverbials and purpose infinitival clause modifiers, even in the absence of an overt, oblique agent PP. This is indeed what we find in (287) and (288). The verbs *mengesbereber* ‘‘paint’’ and *omekedechor* ‘‘build’’ are creation verbs that require agents. Their transitive use is given in the (a) sentences, corresponding passives are shown in the (b) sentences, and their incompatibility with *di ngii*-predication is shown in the (c) sentences.

- (287) a. A sensei a *mi*ngesbereber er a siasing.  
 D teacher TOP PAST.paint.IMPF ACC D picture.  
 ‘‘The teacher was painting a picture.’’ TRANSITIVE
- b. A siasing a ***mi***-chesbereber (er a sensei).  
 D picture TOP INTR.PAST-paint (P D teacher)  
 ‘‘The picture was painted (by the teacher).’’ IMPLICIT/OBLIQUE AGENT
- c. \*Ng ***di*** ***mle*** ***ngii*** [a siasing [el ***mi***-chesbereber ]].  
 3SG= only AUX.PAST itself [D picture [L INTR.PAST-paint ]]  
 (‘‘The picture (was) painted on its own.’’)  
 IMPLICIT AGENT INCOMPATIBLE WITH *di ngii*-PREDICATION

- (288) a. A dem-ak a omeke-dechor er a beches el  
 D father-1SGP TOP CAU-upright.IMPF ACC D new L  
 bli-mam.  
 house-1PL.EXCP.  
 “My father is building our new house.” TRANSITIVE
- b. A beches el bli-mam a **m/uke-dechor** (er a  
 D new L house-1PL.EXCP TOP PAST.PASS.CAU-upright (P D  
 dem-ak).  
 father-1SGP)  
 “Our new house has been built (by my father).”  
 IMPLICIT/OBLIQUE AGENT
- c. \*Ng **di mle ngii** [a beches el bli-mam [el  
 3SG= only AUX.PAST itself [D new L house-1PL.EXCP [L  
**m/uke-dechor** ]].  
 PAST.PASS.CAU-upright ]]  
 (“Our new house (was) built on its own.”)  
 IMPLICIT AGENT INCOMPATIBLE WITH *di ngii*-PREDICATION

The pattern in (287) and (288) suggests that some *me-* verbs (e.g., verbs of creation) are interpreted unambiguously as passives. This result aligns with their uniform compatibility with agent-oriented adverbials and purpose infinitivals even in the absence of an overt agent.

### 5.4 Notes on *me-* Adjectives

To complicate the situation even further, there is an additional class of stative adjectival predicates formed from the prefix *me-* that do not pattern with either passives or unaccusatives. Many (but certainly not all) Palauan stative predicates are formed with the *me-* prefix. Like nearly all of the unaccusative and passive verbs formed from *me-*, a significant number of these stative *me-* predicates also alternate with transitive forms (e.g., *mesisiich* “strong; healthy” versus *melisiich* “strengthen”) or morphological causative forms (e.g., *mesaul* “tired” versus *omeksaul* “exhaust”).<sup>12</sup> Some examples are provided below in (289) through (292).

- (289) Ak kot el **me-saul** el lmuut el me er a blai el me  
 1SG= too L INTR-tired L happen.again L come P D house L come  
 melai a ralm.  
 get D water  
 “I’m too tired to come back to the house to get the water.” [UR 1]

<sup>12</sup>Recall that the alternation was depicted structurally in Fig. 4.6 in Chap. 4.

- (290) Te omengur el mo **me-dinges**.  
 3PL.+HUM= dine L become INTR-satisfied  
 “They eat until they are full.” [KM 4]
- (291) A bli-rir a **me-sisiich**.  
 D house(hold)-3PLP TOP INTR-healthy  
 “Their family is healthy.” [BL 1]
- (292) Me a re-chad er a bli-l me a beluu a ko er a kmal  
 so D PL-person P D house-3SGP and D village TOP sort of very  
 m/o me-chas a reng-rir, e le ngika el buik a  
 PAST.become INTR-charred D heart-3PLP because this L boy TOP  
 kmal **me-sisiich** el diak a **me-ringel** er ngii.  
 very INTR-healthy L not.exist D INTR-painful P there  
 “His family and the villagers were quite surprised at the boy’s sudden good  
 health and quick recovery.” [NB 3]

Unlike passives (but like unaccusatives), *me-* adjectives do not allow external arguments to be expressed in oblique *er*-phrases, they do not license agent-oriented adverbials, and they do not permit control into purpose infinitivals, as shown in (293) below.

- (293) a. Ng (\*blak a reng-ul) **me-sisiich** (\*er a toktang) (\*el mo  
 3SG= (\*eager D heart-3SGP) INTR-healthy (\*P D doctor) (\*L AUX.FUT  
 merael er a Merilang PRO).  
 travel P D Manila he)  
 “He is (\*eagerly) healthy (\*by the doctor) (\*to travel to Manila).”
- b. Ak (\*kerekikl el) **me-saul** (\*er a re-secheli-k) (\*el mo  
 1SG= (\*carefully L) INTR-tired (\*P D PL-friend-1SGP) (\*L go  
 mechiuau PRO).  
 sleep I)  
 “I am (\*carefully) tired (\*by my friends) (\*to go to sleep).”

These results are entirely unsurprising, since stative eventualities are always incompatible with initiators. But perhaps unexpectedly, *me-* adjectives cannot appear in *di ngii*-predications either, even though they do not license implicit arguments. According to this diagnostic, they pattern with passives. This is demonstrated in (294).



- (294) a. \*Ak di ngak [*pro*] [el mle **me-saul** ].  
 1SG= only myself [I ] [L AUX.PAST INTR-tired ]  
 (“I am tired on my own.”)
- b. \*Ng di ngii [a chim-ak ] [el mle **me-ringel** ].  
 3SG= only itself [D hand-1SGP ] [L AUX.PAST INTR-painful ]  
 (“My hand hurts on its own.”)
- c. \*Te di tir [a re-ngalek ] [el mle  
 3PL.+HUM= only themselves [D PL-child ] [L AUX.PAST  
**me-sisiich** ].  
 INTR-healthy ]  
 (“The children are healthy on their own.”)

However, the addition of the verb *mo* “become” transforms the stative predicate into a change-of-state achievement predicate (see Chap. 6, Sect. 6.2.1 for further details), which is compatible with *di ngii*-predication.

- (295) a. Ak di ngak [*pro*] [el **m/o** **me-saul** ].  
 1SG= only myself [I ] [L PAST.become INTR-tired ]  
 “I was getting tired on my own.”
- b. Ng di ngii [a chim-ak ] [el **m/o** **me-ringel** ].  
 3SG= only itself [D hand-1SGP ] [L PAST.become INTR-painful ]  
 “My hand started hurting on its own.”
- c. Te di tir [a re-ngalek ] [el **m/o**  
 3PL.+HUM= only themselves [D PL-child ] [L PAST.become  
**me-sisiich** ].  
 INTR-healthy ]  
 “The children were becoming healthy on their own.”

Evidently, *me-* adjectives fail the *di ngii*-predication test, just as they fail the tests for implicit agents. On this basis, they are syntactically distinct from both passives and unaccusatives and should be analyzed as a separate class.

The diagnostics for implicit agents and the *di ngii*-predication diagnostic thus help us to pick out three types of intransitive predicates that can be formed from the prefix *me-*. The next question is how can we account for the syntactic variation across the larger class of *me-* predicates. In the following section, I lay out the particulars of the analysis.

## 5.5 Analysis

The data in this chapter probably poses the biggest challenge to the hypothesis that verbs are built syntactically from a verbalizer +  $\sqrt{\text{ROOT}}$ . For instance, what appears on the surface to be a single prefix, *me-*, seems to form verbs and adjectives with very different syntactic and semantic properties. Other verbalizers, like the transitive verbalizers presented in Chap. 3, apparently form verbs that are very similar syntactically and semantically, especially with regard to argument structure.

An analysis in which all verbs are listed in the lexicon with verbalizer morphology already attached obviously circumvents this problem, as everything from the possible combinations to the lexical semantics to the argument structure to the morphophonology is stipulated lexically. But I find an analysis of that sort somewhat uninteresting because it provides no principled explanation for the correlations between aspect/argument structure and syntactic behavior. I take the differences in syntactic behavior explored above as evidence for two homophonous intransitive verbalizer *v*'s and an adjectivalizer *a*, each with distinct syntactic features. Furthermore, we must explain why certain semantic classes of roots seem to only combine with certain types of verbalizers and not others (see Embick 2004; Kallulli 2007 for further elaboration), such as the class of creation verbs being incompatible with unaccusative *v*.

The types of diagnostics that we saw for the three subclasses of intransitive *me-* predicates and their results for each predicate type are summarized in Table 5.2. The analysis that I propose follows the spirit of those of von Stechow (1995), Kratzer (1996), and Alexiadou and Anagnostopoulou (2004), in which the differences in the behavior of subclasses of predicates result from the syntactic configurations in which they surface. To begin, I assume the type of articulated model of the verbal complex introduced in Chap. 4, in which verbs and adjectives begin as category-neutral lexical roots. These roots combine with other heads and phrases in the syntax, and then they receive their morphophonological content after Spell Out. On this model, unaccusative verbs, passives, and statives may project a functional *v/a* layer on top of a lexical  $\sqrt{\text{P}}$  projected from a category-neutral lexical root, which aligns with the conclusions reached in Chaps. 3 and 4.

On this analysis, *me-* predicates are not listed in the lexicon with the *me-* prefix attached; rather, the *me-* prefix is the exponent of a distinct functional head: either *v* or *a*. The lexical entries consist of a category-neutral root like  $\sqrt{\text{SAUL}}$  “tired,”

**Table 5.2** Typology of Palauan intransitive *me-* predicates

Predicate type	Implicit oblique arguments	Agent-oriented modifiers	Purpose infinitival clauses	<i>di ngii-</i> predication
Passive verbs	Acceptable	Acceptable <sup>a</sup>	Acceptable <sup>a</sup>	Unacceptable
Unaccusative verbs	Unacceptable	Unacceptable	Unacceptable	Acceptable
Stative adjectives	Unacceptable	Unacceptable	Unacceptable	Unacceptable

<sup>a</sup>Acceptability improves in the presence of an oblique (rather than implicit) agent.

$\sqrt{\text{SESEB}}$  “burn,” or  $\sqrt{\text{CHESBEREBER}}$  “paint.” Each of these lexical items may only select a single internal argument DP as its complement. In the syntax, the  $\sqrt{\text{P}}$  formed from the  $\sqrt{\text{ROOT}}$  and its complement DP merges with a *v* or *a* head, which is the locus of the *me-* morphology seen in the inventory of Palauan intransitive *me-* predicates (following recent work in Distributed Morphology, such as Embick 2010). The two instances of intransitive *v* and one instance of *a* that host the *me-* prefix were listed in (248), which is repeated below. When each of these *v/a* functional heads merges with a  $\sqrt{\text{P}}$ , the resulting structures end up looking quite similar to one another, as shown in Figs. 5.3, 5.4 and 5.5.<sup>13</sup>

(248) SOME INTRANSITIVE FUNCTIONAL HEADS CORRESPONDING TO *me-*:

- a. *Passive v*: Forms passive verbs which license either implicit (null) or oblique (PP) external arguments. If the external arguments are agents, they may in turn license agent-oriented adverbials and purpose infinitival modifiers.
- b. *Unaccusative v*: Forms unaccusative verbs with no implicit or overt external arguments. Can appear in the *di ngii*-predication construction.
- c. *Stative a*: Forms property-denoting stative adjectives, which neither license implicit/oblique external arguments nor appear in the *di ngii*-predication construction.

On this analysis, the three subclasses of *me-* predicates are constructed from prefixes and roots in what are essentially different flavors of a basically unaccusative syntax, where the DP argument of the root is realized as a complement.<sup>14</sup>

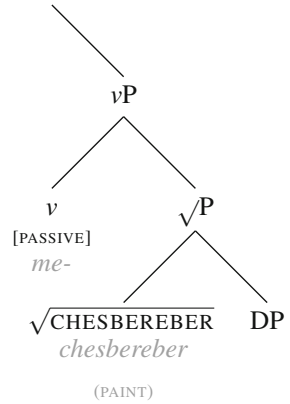
The [PASSIVE] feature on  $v_{[\text{PASSIVE}]}$  in Fig. 5.3 is what permits implicit arguments to be licensed in the syntax of *v*P and oblique arguments (in *er*-phrase PPs) to right-adjoin to the passive *v*P. Consequently, if the implicit or oblique argument is an

<sup>13</sup>It is still an open question whether statives in Palauan should be classified as verbs, adjectives, or both. As I mentioned in footnote 16 on p. 74, recent research has suggested that the adjective category is universal (Baker 2003; Dixon 2004), and presumably the predicates that have been called stative verbs in the Palauan literature (e.g., Josephs 1990) are the likely candidates for classification as adjectives.

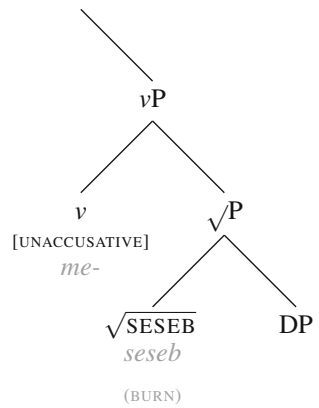
In the related language Chamorro, Chung (2012: 21–25) shows that there are subtle syntactic phenomena associated with verbs that differentiate them from non-verbs, and what might be thought of as “stative verbs” pattern with nouns rather than true verbs with respect to these phenomena. I have not yet had the fortune to discover similarly clear syntactic evidence for a distinction between verbs and adjectives in Palauan. Despite the lack of evidence, I adopt the label *a* here, recognizing that it is essentially a notational variant of a stative verbalizer *v* until empirical evidence for a distinction between the two can be uncovered.

<sup>14</sup>Note that the DP complement to  $\sqrt{\text{ROOT}}$  must be accessible for further movement. If merging a category-defining head creates a Spell Out domain (consisting of the complement of the  $\sqrt{\text{ROOT}}$  along the lines of Marantz 2007; cf. Arad 2003), then this DP must necessarily be introduced higher in the structure or move to a higher escape hatch position to avoid being sent to Spell Out too early. I will not explore the ramifications of that possibility here.

**Fig. 5.3** Passive argument structure



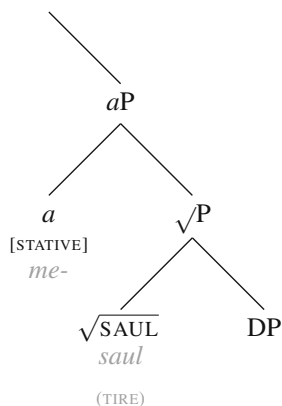
**Fig. 5.4** Unaccusative argument structure



agent, agent-oriented adverbials and the presence of PRO in a purpose infinitival clause adjunct can be licensed by the agent argument. The presence of  $v_{[UNACCUSATIVE]}$  fails to license an oblique or implicit argument in the syntax, and as a result, agent-oriented adverbials and purpose infinitivals cannot be licensed either. Since the *di ngii*-predication diagnostic seems to depend on there being no initiator argument in the syntax (overt or implicit), verbs formed from unaccusative  $v$  can appear in *di ngii*-predications as long as they satisfy whatever other requirements are imposed by *di ngii*-predication. Adjectives that are formed from  $a_{[STATIVE]}$  denote stative eventualities (i.a., Kearns 2000), and are thus distinct from passive and unaccusative verbs aspectually.

This proposal leaves room for the variability in judgments of the acceptability of agent-oriented adverbials and purpose infinitival modifiers with verbs that have particular lexical semantics. This is because some roots can merge with more than one  $v$  or  $a$  head;  $\sqrt{\text{SESEB}}$  “burn” is one example of such a root. If passive  $v$  and unaccusative  $v$  can each merge with the same root (e.g.,  $\sqrt{\text{SESEB}}$ ), then two homophonous *me-* verbs can be created that are pronounced *meseseb*, one passive and the other

**Fig. 5.5** Stative argument structure



unaccusative. Palauan speakers can differentiate between the two in cases when an oblique *er*-phrase is present, as it must be licensed by passive *v*. If the oblique agent is present in an *er*-phrase, or if there is an implicit agent argument, then agent-oriented adverbials are licensed and control into purpose infinitivals is acceptable. But if the *er*-phrase PP is absent, the verb could be interpreted as an unaccusative formed from unaccusative *v*, which would also allow *di ngii*-predication.

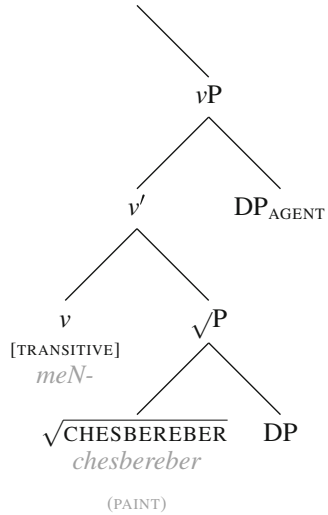
## 5.6 Predictions and Implications

The analysis makes certain predictions about transitivity alternations. For instance, nothing should prevent intransitive *me*- verbs from covarying with a transitive form, since they are composed compositionally in the syntax from a lexical  $\sqrt{\text{ROOT}}$  and a verbalizer morpheme *v*, which could just as easily be transitive as intransitive. That is, transitives would be built up from the same roots but with different verbalizer prefixes: e.g., *meN*- (which triggers nasal substitution) or *omek*- (a causative prefix; Josephs 1975: 202–208), as illustrated in Figs. 5.6, 5.7 and 5.8.<sup>15</sup> In cases of transitivity

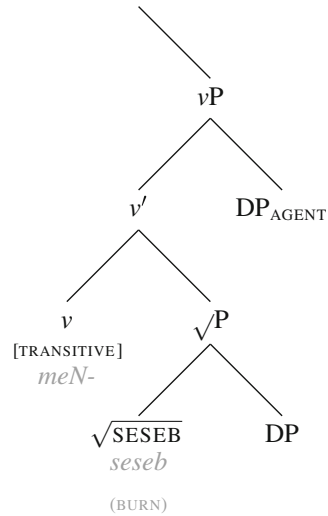
<sup>15</sup>In Fig. 5.8 I label the node that contains the causative morpheme simply as CAUS. My goal there is twofold. First, I do not want to lead the discussion too far afield with a detailed description of causatives and how causative morphosyntax should best be analyzed. Second, I don't know how causative morphosyntax should best be analyzed. It seems clear that causative morphology itself does not introduce an external argument causer, and that the standard instances of transitive *v* familiar from Chap. 2 do this duty instead. In this sense they somewhat resemble the properties of Hiaki (Yaqui) causatives in Harley (2013), as they can be further passivized, etc.

However, I hesitate to label the Palauan causative prefix *uek*- as *v*, as Harley does, for three reasons. First, *uek*- introduces a causative event structure, but the word it appears in need not be a verb, e.g., *uketkall* “keepsake; memento” (*uek*- +  $\sqrt{\text{LATK}}$  “memory; recollection” + the nominalizer *-all*) is approximately “thing which causes a memory.” Second, addition of *uek*- to a root is not sufficient to form a word: it requires a category-defining head, such as transitive or passive *v*,

**Fig. 5.6** Transitive *mengesbereber*



**Fig. 5.7** Transitive *meleseb*



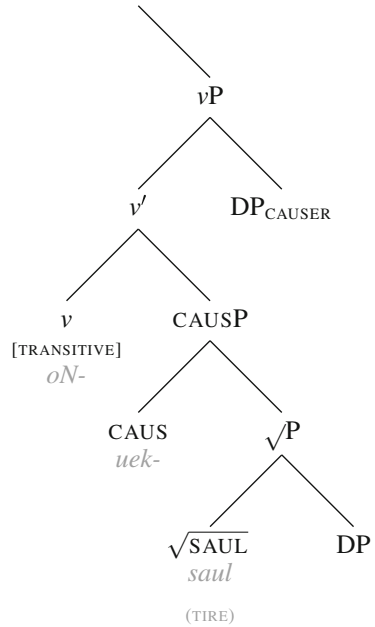
alternations, the subject of an intransitive *me-* verb bears the same thematic role as the direct object of its transitive counterpart, and so the pieces are in place.

This correlation in thematic relation between the subjects of intransitive *me-* verbs and the direct objects of corresponding transitive/causative verbs formed from the

(Footnote 15 continued)

resultative *a*, some nominalizer *n*, etc. Third, it appears as though the *uek-* is lower in the structure than the Hiaki *-tua* suffix, as it does not seem to be able to embed unergative or transitive predicates. For the time being, I consider CAUSP to be a placeholder for whatever the correct syntactic category for the *uek-* morpheme is; this must be left for future research.

**Fig. 5.8** (Transitive)  
causative *omeksaul*



same roots is predicted on the present analysis, as the DP argument of each verb is uniformly introduced as a complement of the  $\sqrt{\text{ROOT}}$  in an unaccusative syntactic schema like those in Figs. 5.3, 5.4 and 5.5. In effect, it makes no difference whether the  $\sqrt{P}$  will later combine with an intransitive *me-* verbalizer or a transitive verbalizer like *meN-* or *oN-*, as long as the semantic requirements imposed by the root are satisfied at LF. That is, all of the argument positions in the predicate must be saturated, and the appropriate s-selectional restrictions—such as animacy, volition, etc.—must be satisfied. But how are those semantic requirements represented formally?

Any analysis that even partially locates the source of argument structure alternations in a class of functional heads (like *v*) that merge with individual roots faces the issue of determining what governs the relationship between *v* and  $\sqrt{\text{ROOT}}$ . Since it is not the case that every single root can have transitive, passive, and unaccusative alternants, what restricts the possible combinations of *v* and  $\sqrt{\text{ROOT}}$ ? Based on the way the categories merge and project, one hypothesis is that each *v* selects a particular set of roots that it can merge with.<sup>16</sup> Clearly, any analysis depending on selection (either downwards selection of a root by a verbalizer *v* or upwards selection of a verbalizer by a root) would have to be heavily stipulated. For each *v* in the small class of verbalizers, long lists of roots would have to be listed as selectees. Or, alternatively, each

<sup>16</sup>Or, alternatively, a sort of “backwards” selection could ensure that particular instances of roots are somehow specified as only being capable of combining with particular instances of *v*. It seems to me that the task of finding any sort of concrete empirical evidence for such a proposal would be at best daunting, and at worst impossible.

root would have to specify which of the verbalizers ( $v$ ) may attach to it, essentially undermining the syntactic separation between roots and verbalizers. On a model of the grammar that includes a pre-syntactic lexicon, why not just attach verbalizers to roots directly in the lexicon? On a model with a post-syntactic Encyclopedia, why not just list combinations of roots and verbalizers together as words there?

I think one possible way to understand the possible combinations of  $v$  and  $\sqrt{\text{ROOT}}$  is to articulate the relevant morphosyntactic and/or lexical semantic properties of roots as features, which must be compatible with corresponding features on the functional heads that select (projections of) these roots.<sup>17</sup> Compatibility can be defined by feature unification, assuming a theory of feature sharing among sub-projections of an extended projection along the lines of the Extended Projection Theory outlined by Grimshaw (2005: Chap. 1). Grimshaw's theory of Extended Projection maintains that lexical heads (N, A, and V) form "extended projections" with the functional heads that project above them. For instance, a V head forms a VP projection, but then when this VP combines with a functional head  $v$  (or Asp, T, Mood, etc.), the resulting  $vP$  (or AspP, TP, MoodP, etc.) is an extended projection of the VP. Morphosyntactic features on any of the heads in the extended projection become features on all of the heads in the extended projection.<sup>18</sup>

The key to the theory is that extended projections are only built upwards when a functional head selects an XP complement, such as the extended projection of the V, represented by the **TP** in Fig. 5.9.<sup>19</sup> Specifiers (such as the subject **DP** in Fig. 5.9), adjuncts (such as the **DegP** modifier in Fig. 5.9), and complements of lexical heads (such as the complement **PP** in Fig. 5.9) are not part of the extended projection, but are themselves extended projections of some other lexical head (V, N, or A). In category-neutral root theory, we can simply say that extended projections are built upwards from roots, as the category-defining heads  $v$ ,  $n$ , and  $a$  are functional heads.

If  $v$  is a functional head that selects a  $\sqrt{P}$  complement, then we can say that it forms an extended projection with its complement, and features are shared between the  $v$  and the  $\sqrt{\text{ROOT}}$ . A theory like this allows us to restrict the possible combinations of  $v$  and  $\sqrt{\text{ROOT}}$  without relying on lexical subcategorizations or lists. We can simply say that features on multiple heads in an extended projection must unify, and our task then is to identify an appropriate set of features that are both empirically motivated and yield the correct inventory of words in a given language.

We might imagine a scenario in which we can encode information about category, aspect, argument structure, and so forth with features on roots and functional heads. Let's construct a crude example with just three features. The first is the familiar [CATEGORY] feature: roots are category-neutral and uniformly have the value [CATEGORY:  $\_\_$ ]. The second is a [ $\pm$ DYNAMIC] aspectual feature, which distinguishes inherently dynamic [+DYNAMIC] events from non-dynamic [-DYNAMIC]

<sup>17</sup>See Ramchand (2008) for a proposal that is similar in spirit but implemented quite differently.

<sup>18</sup>But it seems unlikely that all semantic or phonetic/phonological features should be shared in this way. How to formalize the differences between these features remains to be explained.

<sup>19</sup>In Fig. 5.9 the heads of the four extended projections are boxed, and the top of each extended projection is indicated in bold, with an arrow.



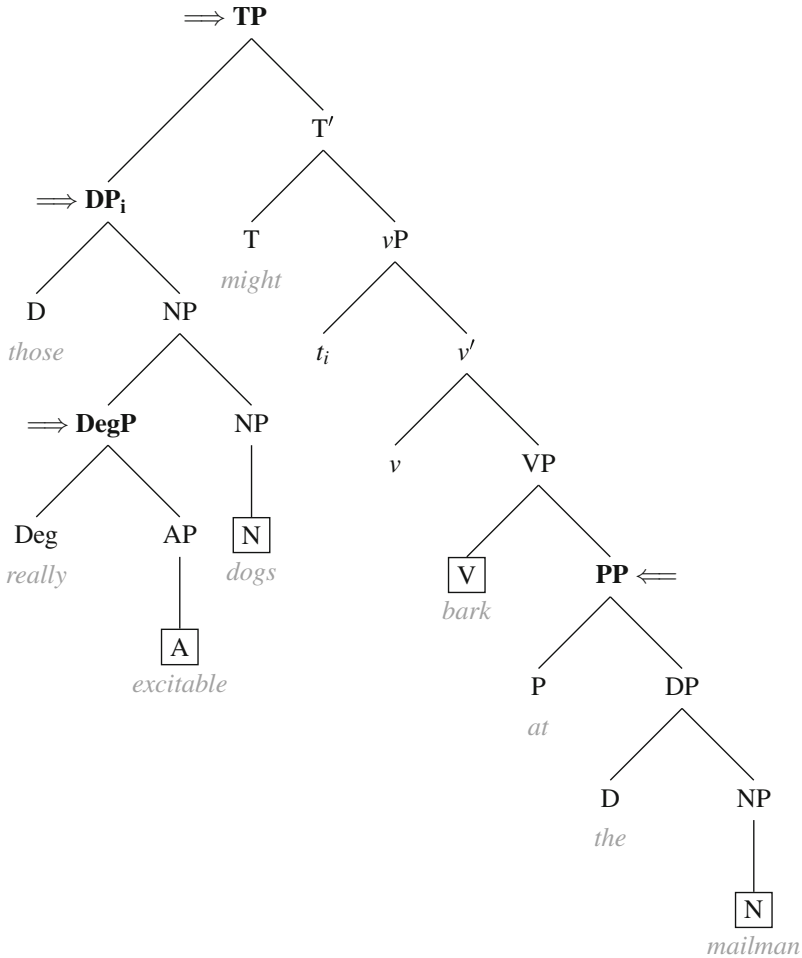


Fig. 5.9 Four different extended projections

states. The third is the [ $\pm$ INITIATOR] feature, which is an argument structure feature that specifies whether the event(uality) needs an initiator argument (i.e., if it is [+INITIATOR]), allows but does not need an initiator argument (i.e., if it is [ $\_$ INITIATOR]), or does not permit an initiator argument (i.e., if it is [-INITIATOR]).

With features like [CATEGORY], [ $\pm$ DYNAMIC], and [ $\pm$ INITIATOR], we can begin to restrict the possible combinations of  $v$  and  $\sqrt{\text{ROOT}}$  by specifying which Vocabulary Items can be inserted into which positions in an extended projection, based on the Subset Principle. Assuming that category-neutral roots form the foundation of each extended projection, let's imagine a subset of Vocabulary Items that can be inserted into  $\sqrt{\text{ROOT}}$  positions, such as those listed in Table 5.3, as well as some functional

**Table 5.3** Some roots with associated features

Vocabulary item	Gloss	Subcategorization	Features
$\sqrt{\text{CHESBEREBER}}$	“paint”	[ $\underline{\quad}$ DP <sub>THEME</sub> ]	[CATEGORY: $\underline{\quad}$ ] [+DYNAMIC] [+INITIATOR]
$\sqrt{\text{CHITAKL}}$	“sing”	[ $\underline{\quad}$ (DP <sub>THEME</sub> )]	[CATEGORY: $\underline{\quad}$ ] [+DYNAMIC] [+INITIATOR]
$\sqrt{\text{SESEB}}$	“burn”	[ $\underline{\quad}$ DP <sub>THEME</sub> ]	[CATEGORY: $\underline{\quad}$ ] [+DYNAMIC] [ $\underline{\quad}$ INITIATOR]
$\sqrt{\text{OAD}}$	“die”	[ $\underline{\quad}$ DP <sub>EXPERIENCER</sub> ]	[CATEGORY: $\underline{\quad}$ ] [+DYNAMIC] [−INITIATOR]
$\sqrt{\text{SAUL}}$	“tired”	[ $\underline{\quad}$ DP <sub>EXPERIENCER</sub> ]	[CATEGORY: $\underline{\quad}$ ] [−DYNAMIC] [−INITIATOR]
$\sqrt{\text{BOK}}$	“open”	[ $\underline{\quad}$ DP <sub>THEME</sub> ]	[CATEGORY: $\underline{\quad}$ ] [ $\underline{\quad}$ DYNAMIC] [ $\underline{\quad}$ INITIATOR]

Please carefully note the subtle notational difference between unspecified features marked with an underscore  $\underline{\quad}$ , e.g., [ $\underline{\quad}$ INITIATOR], versus negatively specified features marked with a minus sign  $-$ , e.g., [−INITIATOR].

**Table 5.4** Some category-defining functional heads with associated features

Vocabulary item	Subcategorization	Features
Passive <i>me-</i>	[ $\underline{\quad}$ $\sqrt{\text{P}}$ ]	[CATEGORY: V] [+DYNAMIC] [+INITIATOR]
Unaccusative <i>me-</i>	[ $\underline{\quad}$ $\sqrt{\text{P}}$ ]	[CATEGORY: V] [+DYNAMIC] [−INITIATOR]
stative <i>me-</i>	[ $\underline{\quad}$ $\sqrt{\text{P}}$ ]	[CATEGORY: A] [−DYNAMIC] [−INITIATOR]

heads that could be inserted into the category-defining head positions, such as the three *me-* prefixes listed in Table 5.4.

If it were not for additional feature specifications, any of the category-defining heads in Table 5.4 would be able to merge with any projection of the roots in Table 5.3, but then we would not predict the syntactic differences in the class of *me-* predicates explored in this chapter. Instead, feature unification serves to restrict the possible combinations in the syntax, before Spell Out and Vocabulary Insertion. For instance, feature unification will allow the passive *me-* morpheme to occupy a position in the phrase structure that is of category V and has a complement with compatible features, otherwise the features cannot unify. That is, it may select  $\sqrt{\text{P}}$  complements that are headed by roots like  $\sqrt{\text{CHESBEREBER}}$  “paint” and  $\sqrt{\text{CHITAKL}}$  “sing” (and probably other creation verbs) because they are [+DYNAMIC] [+INITIATOR]. But it may also select a  $\sqrt{\text{P}}$  complement that is headed by a root like  $\sqrt{\text{SESEB}}$  “burn” even though it is [ $\underline{\quad}$ INITIATOR], because it allows an initiator but does not require one. On the other hand, passive *me-* cannot select a  $\sqrt{\text{P}}$  complement that is headed by roots like  $\sqrt{\text{OAD}}$  “die” (which is incompatible with initiators) or roots like  $\sqrt{\text{SAUL}}$  “tired” (which is stative, i.e., [−DYNAMIC]).

The same goes for unaccusative and stative *me-*: each can only select  $\sqrt{\text{P}}$ s with compatible features. Importantly, the features are already in the hierarchical syntactic structure: Vocabulary Insertion simply inserts compatible Vocabulary Items. Different Vocabulary Items can be inserted into different structures, depending on feature specifications. For instance, it is predicted that the root  $\sqrt{\text{BOK}}$  “open” should be compatible with passive, unaccusative, and stative *me-* (unless there are additional

relevant features that could cause a clash). This is because  $\sqrt{\text{BOK}}$  has no value for any of the features. As a consequence, we should expect to find both *me-* verbs and *me-* adjectives formed from  $\sqrt{\text{BOK}}$  that have the syntactic behavior of passives, unaccusatives, and statives. Diagnostics for differences in syntactic behavior and distribution like the ones examined in this chapter (e.g., co-occurrence with *er*-phrase PPs, *di ngii*-predication, etc.) should ideally motivate differences in feature specification. If an approach like the one outlined here is on the right track, then it may prove useful for future research at the syntax–lexical semantics interface, like Levin’s (1993) extensive investigation of the syntax and lexical semantics of English verb classes. Such research is crucial to our understanding of the composition of lexical and functional morphemes and morphosyntax in general.

Furthermore, the system is powerful enough to explain the productivity and behavior of new verbs. If the lexical semantics of any novel verb root can be understood from context, then the analysis here predicts that the new verb should have different variants resulting from its combination with any number of compatible functional *v* heads taken from a known, closed set. I noticed one example on an episode of the television series “Gossip Girl” on the CW Network, in which a new transitive verb was coined, based on the title of “An Affair to Remember,” the 1957 film starring Cary Grant and Deborah Kerr in which one character proposes to meet the other in six months on the top of the Empire State Building in New York City. On the episode of “Gossip Girl,” an exchange between two principal characters is given in (296) below.

(296) TRANSITIVE VERB BASED ON THE MOVIE TITLE *An Affair to Remember*:

- a. CHUCK BASS: “I’ll be waiting at the top of the Empire State Building.”
- b. BLAIR WALDORF: “You can’t *Affair-to-Remember* me!”

[*Gossip Girl*, Episode 64, aired 10 May 2010]

Many internet sites write recaps of episodes of popular TV shows, and the recap of this particular “Gossip Girl” episode on <http://gawker.com> remarked on the exchange given in (296), using a passive of the newly coined transitive verb *Affair-to-Remember*, as shown in (297).

(297) [Blair] can’t be *Affair-to-Remember*-ed. [URL:  
<http://gawker.com/5536274/gossip-girl-scheming-is-free>; retrieved 17 May 2010]

If viewers of Gossip Girl episode 64 like Brian Moylan, the author of the Gawker recap, lexicalized *Affair-to-Remember* as a verb root with the features [+DYNAMIC] and [+INITIATOR], and meaning something like “try to get somebody to meet one at the top of the Empire State Building,” then this verb root should be compatible with passive *v*, and the passive form in (297) is predicted. Furthermore, the verb *Affair-to-Remember* should have no unaccusative form, a prediction that would have

to be tested empirically, as in (298) which strikes me as quite bad with *I* interpreted as the theme argument of the unaccusative verb *Affair-to-Remember-ed*.

(298) \*When I visited New York, I *Affair-to-Remember-ed* on my own.

In summary, this chapter examined a morphological class of Palauan intransitive predicates formed from the prefix *me-*, whose syntactic properties are puzzling if they are treated as a homogeneous class. I have shown that differences in the lexical semantics and argument structures of particular roots partially determine which *v* or *a* morphemes they may combine with, which restricts the class of possible predicates in a language. The result in Palauan is that predicates that are formed with the prefix *me-* can be derived using three different functional heads— $v_{[PASSIVE]}$ ,  $v_{[UNACCUSATIVE]}$ , and  $a_{[STATIVE]}$ —but the choice has syntactic consequences. For example, diagnostics for implicit arguments in passives were shown to be incompatible with the *di ngii*-predication diagnostic for unaccusatives. This incompatibility can be explained if implicit agents are licensed by passive voice (treated formally as a feature [PASSIVE], which might decompose further into features like [+DYNAMIC], [+INITIATOR], etc.), while *di ngii*-predication is only compatible with verbs bearing the feature [UNACCUSATIVE]. And since multiple *v* heads may be spelled out as *me-*, ambiguities between passive and unaccusative interpretations of certain verbs are predicted for certain predicates—specifically those predicates formed from roots which do not require an agent (i.e., [\_\_INITIATOR]).

To close the chapter, it is worth noting that from a cross-linguistic standpoint, the fact that *me-* marks passives, unaccusatives, and statives in Palauan is not entirely surprising. Haspelmath (1990: 36) identifies a range of typologically unrelated languages displaying syncretism between passive and unaccusative morphology (at least Danish, Modern Greek, Kanuri, Margi, Motu, Nimbora, O'dham, Tigre, and Udmurt, and possibly also Uyghur), as well as (some type of) stative and unaccusative morphology (at least Latin, Mwera, and Nimbora, and possibly also Tahitian and Uyghur). Investigations of the syntactic properties of intransitive verbs in additional languages will most certainly help to shed more light on how differences among classes of predicates can be argued to result from differences in how speakers of those languages model knowledge linguistically.

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## Chapter 6

# Changing Categories

Evidence that the morphophonological words that correspond to Palauan predicates might be constructed (at least partially) in the syntax has by now been examined in the context of several different domains: the morphologically distinct aspectual forms of transitive verbs in Chap. 3, valence and category alternations in phrasal idioms in Chap. 4, and the relationships between morphologically similar but syntactically distinct passive, unaccusative, and stative intransitive verbs in Chap. 5. Verbs, for example, are built from (i) a  $v$  that hosts verbalizer prefixes/infixes and (ii) a root that encodes the semantics of the event or state. On this view, the divide between words and phrases is blurred. If the feature unification analysis of predicate formation presented in Chap. 5 is correct, and the relation between a category-defining head and its complement is not one of selection in the traditional sense, then we might expect category-defining heads to combine not only with roots or  $\sqrt{P}$ s but rather with any complement with compatible features.

This chapter explores this idea that category-defining heads can merge with constituents larger than  $\sqrt{P}$ , examining data involving Palauan resultatives. The distinction that some languages exhibit between so-called verbal passives (also known as eventive passives) and adjectival passives (also known as stative passives or resultatives) is exemplified in the English examples (299) and (300), respectively. Roughly, a verbal passive describes an event, and an adjectival passive (resultative) describes a state that obtains as a result of some event having occurred.

(299) PASSIVE (VERBAL PASSIVE):

- a. During my visit, that door was quickly *taken off* by the tenant.
- b. John's requests are getting *satisfied*. [Emonds 2006: 18, ex. 2a]

(300) RESULTATIVE (ADJECTIVAL PASSIVE):

- a. At my arrival, that door was already completely *taken off*.
- b. John now seems very (*un*)*satisfied*. [Emonds 2006: 18, ex. 2b]



Wasow (1977) analyzes the difference in interpretation as the result of a difference in how the verb participles are derived. On Wasow's view, verbal passives like those in (299) are derived syntactically, whereas adjectival passives (resultatives) like those in (300) are formed in the lexicon (i.e., Siegel 1973; Anderson 1977; Wasow 1980; Bresnan 1982; Levin and Rappaport 1986; Dubinsky and Simango 1996). Embick (2004), following the proposals of Kratzer (2000, 2005), challenged this view and proposed a syntactic analysis of resultatives using the technology of Distributed Morphology. In this context, an investigation of the properties of resultatives in Palauan might also help shed light on the proper analysis of English resultatives.

Palauan resultatives are described in the literature as *resulting state verbs* (Josephs 1975, 1990, 1997), which are "derived by taking the verb stem ... and inserting the infix *-l-* or *-el-* after the stem-initial consonant" (Josephs 1997: 273); this is exemplified in (301b).<sup>1</sup>

(301) a. TRANSITIVE:

A sensei a **meluches** er a babier.  
 D teacher TOP write.IMPf ACC D letter  
 "The teacher is writing the letter."

b. RESULTATIVE:

A babier a **luches**.  
 D letter TOP RES.write  
 "The letter is written."

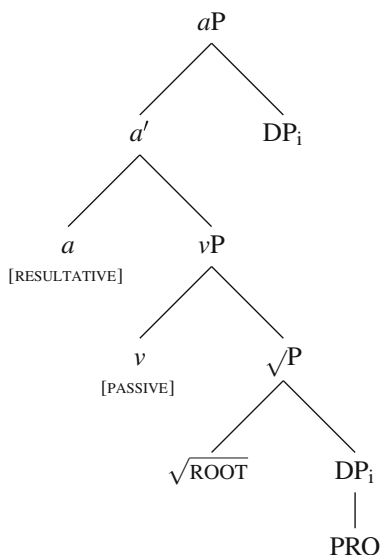
[Josephs 1997: 273, ex. 17]

The syntactic properties of Palauan resultatives suggest that they begin as roots that are first verbalized as passives (via merge of passive *v* with  $\sqrt{P}$ ) and then subsequently stativized, via a merge of an additional resultative *a* with the passive *vP*. The analysis treats Palauan resultatives as being derived syntactically rather than in the lexicon, with the structure given in Fig. 6.1. If correct, the result aligns with Embick's (2004) syntactic analysis of English resultatives.

The chapter is laid out as follows. Section 6.1 presents data suggesting that Palauan resultatives have a (non-stative) eventive component, drawing on evidence from some of the diagnostics explored in previous chapters, including the presence of oblique initiator arguments, agent-oriented manner adverbials, and aspectual modifiers that target telic endpoints, all of which are ordinarily incompatible with adjectives and stative verbs. Section 6.2 examines evidence that despite having an eventive component, resultatives have the external distribution of adjectives and stative verbs, drawing on evidence from aspectual auxiliary selection, interaction with tense morphology, and their truth-conditional semantics. Section 6.3 discusses the argument structure of resultatives, suggesting that the subject of a Palauan resultative predicate is base-generated in the specifier of a resultative *a* head. This DP binds an instance

<sup>1</sup>The *-(e)l-* infix can assimilate to *-(e)r-* when it precedes [r].

**Fig. 6.1** Proposed structure for Palauan resultatives



of PRO, which is the internal argument of an embedded verbal predicate, aligning with the conclusions reached about passives in Chap. 5.

The result is that the event structure of each Palauan resultative is complex and has two semantic components: an embedded passive  $vP$  which corresponds to the denotation of an event with a target state component (in the sense of Parsons 1990: 234–235), and a resultative (stative) eventuality introduced by the resultative  $a$  head, which introduces the external argument that binds the PRO in the passive  $vP$ . The predicate's root merges with its internal argument DP (PRO) along the lines of the proposal in Chap. 5, Sect. 5.5. The resulting  $\sqrt{P}$  merges with passive  $v$ , which licenses the oblique arguments, manner adverbials, and aspectual modifiers (see Chap. 5 for details). At that point in the derivation, the passive  $vP$  merges with a resultative  $a$  head that transforms the eventive passive  $vP$  into a stative passive  $aP$  by existentially quantifying the neo-Davidsonian event argument, as proposed by Kratzer (2000: 391, ex. 14; cf. Kratzer 2005) for German resultatives, and introduces the external argument in Spec  $aP$  which binds the PRO in the embedded  $vP$ .<sup>2</sup> Finally, Sect. 6.4 discusses some of the implications and consequences of the analysis for category-neutral root theory and the nature of word formation, and Sect. 6.5 concludes.

Essentially, I argue that Palauan resultatives have a complex semantics with both eventive and stative components, where the culmination of the event induces a resultative state. The syntax in Fig. 6.1 provides the appropriate structure to compute the semantics using standard compositional operations (e.g., those in Heim and Kratzer 1998). If correct, this analysis of Palauan resultatives supports the idea that there

<sup>2</sup>Cf. Embick (2004: 383, ex. 64) for English resultatives, Travis 2005b: 403–404 for Malagasy resultatives, and Anagnostopoulou (2003) and Alexiadou and Anagnostopoulou (2008: 39, ex. 34) for a similar type of resultative in Greek.

is syntactic structure beneath the word level, as suggested by Roeper (1987: 306) in examples like (302), containing English resultatives that co-occur both with *by*-phrases, which are characteristic of verbal passives, and *un*- prefixation, which can only target adjectives.

- (302) a. The code was *un*-[broken by the Russians].  
 b. The problem was *un*-[detected by anyone].  
 c. The case was *un*-[contested by the lawyers].  
 d. The man was *un*-[seen by police observers]. [Roeper 1987: 306, ex. 141a–d]

If it's true that *un*- prefixation is restricted to adjectives and oblique *by*-phrases are only licensed by verbal passives, then Roeper's examples suggest that English resultatives may also be formed from passive *v*Ps—indicated by the brackets in (302)—which then change category from verb to adjective. This is precisely the analysis I propose for Palauan resultatives.

The result takes the conclusions from Chaps. 3–5 a step further. Morphophonological words not only do not necessarily correspond to syntactic constituents, but they also may not have a clear-cut category, instead transitioning through one or more categories at different hierarchical levels of the syntax. Palauan resultatives seem to have two categories: they are verbal with respect to their predicate-internal syntax, but adjectival with respect to their external distribution and predicate-external syntax. This is something that we might expect if category is determined syntactically and hierarchically rather than pre-syntactically, in the lexicon.

## 6.1 The Internal Verbal Structure of Resultatives

In this section, I present and discuss three types of evidence that resultative predicates are formed from full passive *v*Ps. Like verbal passives, resultatives allow internalized (oblique or implicit) external arguments, manner adverbials, and aspectual modifiers targeting telic endpoints, none of which may co-occur with adjectives or stative verbs. These three strands of evidence together suggest that resultatives, like verbal passives, must have a bounded, non-stative event structure component.

### 6.1.1 Internalized External Arguments

As was illustrated in Chap. 5, Sect. 5.2, the external argument of a transitive active sentence may be expressed obliquely or implicitly in passives, as shown in (303) through (305). The “internalized external argument” can be an agent as in (303b), but it need not be, as in (304b) and (305b).

- (303) a. A dachelbai el chad er a chei a **mi/urech** a bdel-ul a lluich  
 D skillful L man P D sea TOP PAST.spear.PF D head-3PLP D 20  
 el ngikel.

L fish

“The skillful fisherman speared 20 fish in the head.”

EVENTIVE TRANSITIVE

- b. A lluich el ngikel a **ule-burech** a bdel-ul (er a dachelbai  
 D 20 L fish TOP PAST.PASS-spear D head-3PLP (P D skillful  
 el chad er a chei).

L man P D sea)

“20 fish were speared in the head (by the skillful fisherman).”

VERBAL PASSIVE

- (304) a. A bli-l a kelebus a **merers** er a re-dart el  
 D building-3SGP D prison TOP hold.inside.IMPF ACC D PL-100 L  
 kelebus.

prisoners

“The prison is holding 100 prisoners.”

STATIVE TRANSITIVE

- b. A re-dart el kelebus a **me-sers** (er a bli-l  
 D PL-100 L prisoners TOP PASS-hold.inside (P D building-3SGP  
 a kelebus).

D prison)

“100 prisoners are being held (by the prison).”

VERBAL PASSIVE

- (305) a. Ke **ulle-siich** er a reng-uk.  
 2SG= PAST.CAU-tight ACC D heart-1SGP

“You made me proud.” (lit. “You tightened my heart.”)

CAUSATIVE  $\psi$ -IDIOM

- b. Ng **m/o-siich** a reng-uk (er kau).  
 3SG= PAST.PASS.CAU-tight D heart-1SGP (P you)

“I was made proud (by/of you).” (lit. “My heart was tightened (by you).”)

VERBAL PASSIVE

*Er*-phrase PPs that contain internalized external arguments can also appear in resultatives, and just as in passives, they may contain agents as in (306a) and (307a), or non-agents as in (306b–c) and (307b–c). The examples in (306) were elicited from native speakers, but examples of resultatives co-occurring with *er*-phrase PPs also occur in texts, as in (307). The grammaticality of the examples in (306) and the occurrence of printed examples like those in (307) together suggest that resultatives

are formed from passives of transitive verbs, as there do not appear to be thematic restrictions on the types of external arguments that can appear in *er*-phrase PPs, just as is the case in verbal passives.

(306) RESULTATIVES WITH *er*-PHRASES:

- a. A lluich el ngikel a mle **b/urech** a bdel-ul (er a  
 D 20 L fish TOP AUX.PAST RES.spear D head-3PLP (P D  
 dachelbai el chad er a chei).  
 skillful L man P D sea)  
 “20 fish were speared in the head (by the skillful fisherman).”
- b. A re-dart el kelebus a **selers** (er a bli-l a kelebus).  
 D PL-100 L prisoners TOP RES.enclose (P D building-3SGP D prison)  
 “100 prisoners are held (by the prison).”
- c. Ng mle **ul-siich** a reng-uk (er kau).  
 3SG= AUX.PAST RES.CAU-tight D heart-my (P you)  
 “I was made proud (by/of you).” (lit. “My heart was tightened (by you).”)

(307) RESULTATIVES WITH *er*-PHRASES:

- a. Ng di Kot el Ngar er Bab el Dios a diak le-kiei a blai  
 3SG= but most L be P top L god TOP NEG 3S.IRR-live D houses  
 el **rruul** er a re-chad.  
 L RES.make P D PL-human  
 “But the Most High God does not live in houses built by human hands.”  
 (approx. “But the (one who does) not live in houses made by humans is  
 the Most High God.”) [Chedaol Biblia, Acts 7:48]
- b. A bdel-um a **b/iull** er a cheltechat.  
 D head-2SGP TOP RES.cover P D wounds  
 “Your head is already covered with wounds.” [Chedaol Biblia, Isaiah 1:5]
- c. Tirkai a re-chad el meruul a orars er a delongel-ir  
 these TOP PL-person L make.IMPF D partitions P D relationships-3PLP  
 a re-chad, el **te/uchel** er a di so-al a klechad.  
 D PL-person L RES.influence P D just desires-3PL.—HUMP D lives  
 “These are the people who cause divisions, who are controlled by their  
 natural desires.” [Chedaol Biblia, Jude 1:19]

In order to highlight an important contrast, recall that simple stative adjectives formed from *me*- (see Chap. 5, Sect. 5.4 for further details) do not permit internalized

external arguments in oblique *er*-phrase PPs because there are no external arguments to internalize, as shown in (308a) for the adjective *mesaul* “tired.” However, the resultative *uleksaul* formed from the passive of the causativized verb *omeksaul* “exhaust” is perfectly acceptable with an *er*-phrase, as in (308b).

- (308) a. \*Ak mle **me-saul** er a re-ngelek-ek.  
 ISG= AUX.PAST INTR-tired P D RE-child-1SGP  
 (“I was tired by my children.”) STATIVE ADJECTIVE
- b. Ak mle **ulek-saul** (er a re-ngelek-ek).  
 ISG= AUX.PAST RES.CAU-tired (P D RE-child-1SGP)  
 “I was exhausted (by my children).” RESULTATIVE

The fact that resultatives allow oblique external arguments in *er*-phrases while ordinary stative adjectives do not suggests that part of the denotation of a resultative will make reference to a non-stative eventuality. The data in the following sections strengthens the plausibility of that view: it is shown below that resultatives, unlike simple statives, permit agent-oriented manner adverbials and modifiers of telic endpoints with *er a chesel a*-PPs (recall the discussions in Chap. 5, Sect. 5.2.2 and Chap. 2, Sect. 2.2.3.3, respectively).

## 6.1.2 The Complex Event Structure of Resultatives

In this section, data involving the interaction of resultatives with agent-oriented manner adverbials and aspectual modifiers is examined, revealing that there is likely a complex event structure in resultative predicate phrases.

### 6.1.2.1 Manner Adverbials

The evidence for implicit arguments in resultatives—i.e., of the events that induce resulting states—suggests that they can be derived from passives of transitive verbs denoting events. If this logic is correct, then we might expect manner adverbials to be able to modify the non-stative event denoted by the passive *v*P before it becomes a resultative, for instance in the examples in (309), which contain verbal passives that co-occur with the manner adverbials *omekedelad* “carefully” and *terrekakl* “sloppily.” Interestingly, the same manner adverbials can co-occur with resultatives, as shown in (310).

## (309) PASSIVES:

- a. A blai a **omekedelad** el **muk-beches**.  
 D house TOP careful L PASS.CAU-new  
 “The house is being renovated carefully.”
- b. A siasing a **terrekakl** el **me-luches**.  
 D picture TOP sloppy L PASS-draw  
 “The picture is being drawn sloppily.”

## (310) RESULTATIVES:

- a. A blai a mera el **omekedelad** el **ulek-beches**.  
 D house TOP really L careful L RES.CAU-new  
 “The house is really carefully renovated.”
- b. A siasing a mera el **terrekakl** el **l/luches**.  
 D picture TOP really L sloppy L RES.draw  
 “The picture is really sloppily drawn.”

That the acceptability of manner adverbials in the resultative predicates in (310) patterns with the corresponding verbal passives in (309) would be surprising if resultatives simply denoted resulting states with no (non-stative) event component. Simple stative adjectives, like *beches* “new” or *mengelengalek* “ugly,” are incompatible with these types of manner adverbials, as shown in (311).

## (311) STATIVES:

- a. \*A blai a **omekedelad** el **beches**.  
 D house TOP careful L new  
 (“The house is carefully new.”)
- b. \*A siasing a **terrekakl** el **mengelengalek**.  
 D picture TOP sloppy L ugly  
 (“The picture is sloppily ugly.”)

In short, the distribution of manner adverbials offers evidence that resultatives have event structures that are more complex than those of simple statives. If manner adverbials can only describe the actions undertaken by an initiator of some sort (often an agent), then in principle they should be incompatible with statives, which do not permit initiators. And yet they are compatible with resultatives. It would thus appear





## (312) PASSIVES:

- a. A blai a **m/uk-beches** er a chels-el a ta  
 D house TOP PAST.PASS.CAU-new P D space.inside-3SGP D one  
 el buil.  
 L month  
 “The house was renovated in a month.”
- b. A siasing a **mil-luches** er a chels-el a eim  
 D picture TOP PAST.PASS-draw P D space.inside-3PLP D five  
 el bung.  
 L minutes  
 “The picture was drawn in five minutes.”

## (313) RESULTATIVES:

- a. A blai a mle **ulek-beches** er a chels-el a ta  
 D house TOP AUX.PAST RES.CAU-new P D space.inside-3SGP D one  
 el buil.  
 L month  
 “The house was renovated in a month.”
- b. A siasing a mle **luches** er a chels-el a eim  
 D picture TOP AUX.PAST RES.draw P D space.inside-3PLP D five  
 el bung.  
 L minutes  
 “The picture was drawn in five minutes.”

The acceptability of *er a chelsel a-PP* modifiers in resultative predicate phrases again contrasts with examples containing adjectives, like *beches* “new” and *klebokel* “pretty,” which as statives are inherently unbounded; compare (313) with (314).

## (314) STATIVES:

- a. \*A blai a mle **beches** er a chels-el a ta  
 D house TOP AUX.PAST new P D space.inside-3SGP D one  
 el buil.  
 L month  
 (“The house was new in a month.”)
- b. \*A siasing a mle **klebokel** er a chels-el a eim  
 D picture TOP AUX.PAST pretty P D space.inside-3PLP D five  
 el bung.  
 L minutes  
 (“The picture was pretty in five minutes.”)

The contrast between (313) and (314) provides further evidence that resultatives have more complex event structures than (simple) statives, and that they pattern in many ways like verbal passives. The distribution of telic aspectual modifier PPs receives a natural explanation if resultatives are themselves derived syntactically from verbal passive vPs.

## 6.2 Resultatives as Resulting State Predicates

Despite the conclusions of the previous section, resultatives still seem to be treated like stative adjectives in some sense, both syntactically and semantically. Data showing that resultatives are selected by the same auxiliaries as statives and have the truth conditions of statives suggest that their event structure contains both an eventive and a stative component, as is also suggested by Kratzer (2000) for German resultatives.

### 6.2.1 Aspectual Auxiliary Selection

The distribution of the aspectual auxiliary *mła* provides evidence that resultatives are treated on some level like other stative predicates. *Mła* appears to have the properties in (315).

(315) INFORMAL SYNTAX AND SEMANTICS OF *mła*:

- a. *Mła* is an aspectual auxiliary of category  $Asp_V$  (see Fig. 3.1 in Chap. 3) which selects a predicate XP denoting a non-stative eventuality. That is, *mła* is introduced externally to the predicate.
- b. *Mła* asserts that the eventuality it describes is either complete or at least indefinitely terminated (if incomplete).

In some sense, *mła* appears to behave similarly to the English perfect auxiliary *have* in a great number of cases. *Mła* only co-occurs with non-stative predicates (i.e., processes, accomplishments, and achievements).<sup>3</sup> As such, *mła* may precede predicates like *merael* “walk” (process), *omekoad* “kill” (accomplishment), and *remenges* “hear” (achievement), as shown in (316), but not with stative predicates, such as *mesisiich* “strong” or *beches* “new,” as in (317).

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<sup>3</sup>In English, *mła* also occasionally translates as “already”.

## (316) a. PROCESS:

Ke ko el **mla merael** er a ulol-el a ngoaol?  
 2SG= just L AUX walk P D floor-3SGP D deep.sea

“Have you walked on the floor of the ocean?” [*Chedaol Biblia*, Job 38:16]

## b. ACCOMPLISHMENT:

A re-chad er a Benjamin a **mla mek-od-eterir** a  
 D PL-person P D Benjamin TOP AUX CAU.PF-die-3PL.+HUMO D  
 re-30 el chad er a Israel.  
 PL-30 L person P D Israel

“The Benjaminites had already killed the thirty Israelites.”

[*Chedaol Biblia*, Judges 20:39]

## c. ACHIEVEMENT:

Tirka el chad a **mla remenges** el kmo kau, e Rubak, a  
 these L people TOP AUX PF.hear L C you VOC Lord TOP  
 obeng-kemam.  
 companion-1PL.EXCL

“These people have already heard that you, Lord, are with us.”

[*Chedaol Biblia*, Numbers 14:14]

## (317) STATIVE:

## a. \*Ak mla mesisiich.

1SG= AUX strong

(“I have (already) been strong.”)

## b. \*Ng mla beches a mlai.

3SG= AUX new D car

(“The car has (already) been new.”)

Because *mla* cannot combine with statives but can combine with predicates of any non-stative aspectual class (Vendler 1957, 1967; Verkuyl 1972, 1989, 1993; Comrie 1976; Dowty 1979; Chung and Timberlake 1985; Smith 1991; Jackendoff 1996; Hay et al. 1999; Kearns 2000; Travis 2005a; Beavers 2006), co-occurrence with *mla* can be used as a diagnostic for (non-)stativity.

But there is one potential complication for the characterization of *mla* in (315). It might be argued that *mla* does not place any restrictions on temporality or boundedness, and so it should be able to combine with statives because even states can cease to hold after some duration of time. If *mla* may combine with statives, then it could possibly not actually serve as a reliable diagnostic for (non-)stativity.

But I think there is reason to believe that the view of *mla* in (315) is on the right track, particularly if we consider sentences that have been translated from English

into Palauan. Whenever an English sentence containing a sequence of [*already* + STATE] is translated into Palauan, the verb *mo* “become” or a different verb is usually inserted, as in (318). Crucially, the state is transformed into an event describing a change of state (see Koontz-Garboden and Levin 2007, as well as Koontz-Garboden 2007 for details and extensive references).

- (318) a. Kom **mla mo** meteet?  
 2PL= AUX become rich  
 “Are you already rich?” (lit. “Have you become rich?”)  
 [Chedaol Biblia, 1 Corinthians 4:8]
- b. A re-cherrou-ed a **mla me** er a Dan.  
 D PL-enemy-1PL.INCLP TOP AUX arrive P D Dan  
 “Our enemies are already in the city of Dan.” (lit. “Our enemies have already arrived at Dan.”)  
 [Chedaol Biblia, Jeremiah 8:16]
- c. Ke di mo mereched el obes aike el **le-bla bo**  
 2SG= just AUX.FUT fast L forget those L 3S.IRR-AUX IRR.become  
 mo-dengei.  
 2S.IRR-know  
 “You will soon neglect what you already know.” (lit. “You will be fast to forget those (things) which have become what you know.”)  
 [Chedaol Biblia, Proverbs 19:27]
- d. Ng **mla mo** kebesengei.  
 3SG= AUX become evening  
 “It is already very late.” (lit. “It has become evening.”)  
 [Chedaol Biblia, Matthew 14:15]
- e. Ngak a **mla mo** 80 a rek-ik.  
 I TOP AUX become 80 D age-1SGP  
 “I am already eighty years old.” (lit. “My age has become 80.”)  
 [Chedaol Biblia, 1 Samuel 19:35]

Some of the examples above in (318) illustrate that *mla* can combine with statives, but only if they undergo some sort of conversion into an event describing a change-of-state, usually involving the verb *mo* “become”.<sup>4</sup> If this were always the case, which seems entirely possible to me, then a predicate’s co-occurrence with *mla* could indeed be used as a diagnostic for (non-)stativity.

In spite of the evidence in Sect. 6.1 that resultatives have an internal structural similar to verbal passives, (319) through (321) show us that *mla* can select passive

<sup>4</sup>Cf. Embick’s (2004: 366) “fientivization” process; see also Wunderlich (1997).

*v*Ps, as in the (a) examples. However, *m̄la* cannot select resultatives, as in the (b) examples, unless a verb occurs between *m̄la* and the resultative, like *mo* “become” in the (c) examples.

## (319) a. PASSIVE:

Ak *m̄la tmuk* a *klokl-el* a *kleblill-iu er aike*  
 1SG= AUX *PF.measure.off* D belongings-3SGP D tribes-2PLP P those  
 el *beluu el dirk medechel me aike* el *beluu el m̄la me-ngai*.  
 L lands L still left and those L lands L AUX PASS-take

“I have assigned as the possession of your tribes the land of the nations that are still left, as well as of all the nations that I have already conquered.” (lit. “the nations that have been conquered.”)

[*Chedaol Biblia*, Joshua 23:4]

## b. RESULTATIVE:

\*...*aike el beluu el m̄la ng/ai*.  
 ...those L lands L AUX *RES.take*  
 (“...the nations that have been conquered.”)

c. *mo* + RESULTATIVE:

...*aike el beluu el m̄la mo ng/ai*.  
 ...those L lands L AUX become *RES.take*  
 “...the nations that have become conquered.”

## (320) a. PASSIVE:

A Moses a *ule-ker* el *kir-el* a *kaming el tenget er*  
 D Moses TOP PAST.IMPF-ask L status-3SGP D goat L offering P  
 a *klengit, e m̄lo medengei el kmo ng m̄la me-dul*.  
 D sin and PAST.become know L C 3SG= AUX PASS-burn  
 “Moses asked about the goat for the sin offering and learned that it had already been burned.” [Chedaol Biblia, Leviticus 10:16]

## b. RESULTATIVE:

\*...*ng m̄la delul*.  
 ...3SG= AUX *RES.burn*  
 (“...it had been burned.”)

c. *mo* + RESULTATIVE:

...*ng m̄la mo delul*.  
 ...3SG= AUX become *RES.burn*  
 “...it had become burned (i.e., was visibly roasted).”

## (321) a. PASSIVE:

A re-bebil er a re-ngelek-ed el redil a **mla mo-terau** el  
 D PL-some P D PL-child-1PL.INCLP L female TOP AUX PASS-sell L  
 mo sibai.  
 become slave

“Some of our daughters have already been sold as slaves.”

[*Chedaol Biblia*, Nehemiah 5:5]

## b. RESULTATIVE:

\*A re-bebil er a re-ngelek-ed el redil a **mla ul-terau**.  
 D PL-some P D PL-child-1PL.INCLP L female TOP AUX RES-sell  
 (“Some of our daughters have been sold.”)

c. *mo* + RESULTATIVE:

A re-bebil er a re-ngelek-ed el redil a **mla mo**  
 D PL-some P D PL-child-1PL.INCLP L female TOP AUX become  
 ul-terau.  
 RES-sell

“Some of our daughters have become sold.”

It would appear that *mla* cannot select bare resultatives, as shown in (319b), (320b), and (321b), just as it cannot select simple stative adjectives. If part of the denotation of a resultative predicate involves reference to an ongoing (resulting) state, then this fact receives a natural explanation: *mla* simply cannot select stative predicates of any type, simple or complex.

### 6.2.2 Resultatives Have Stative Past Tense Morphology

This section shows that resultatives share the external distribution of simple statives with respect to the morphology of past tense marking. Past tense morphology takes different forms depending on whether the predicate is stative or dynamic/eventive. Past tense forms of (non-stative) eventive verbs are formed with an infix *-il-*, as in (322).<sup>5</sup> Past tense is expressed on stative predicates via insertion of an auxiliary verb

<sup>5</sup>Passives formed with different passive verbalizer prefixes interact morphophonologically with past tense *-il-* in different ways. *Me-* passives treat *-il-* as a true infix, resulting in passives with a complex prefix *mil(e)-*. *O-* passives coalesce with *-il-*, resulting in passives with a complex prefix *ul(e)-*. Passives of *omek-* causatives, with the prefix *muk-*, result in past tense forms with *mluk-*. And so forth.

*mle*, as in (323).<sup>6</sup> It does not matter whether the predicate is adjectival, as in (323a–b), or verbal, as in (323c); the auxiliary *mle* is used whenever the predicate is stative.

(322) PAST TENSE WITH *-il-* INFIX (NON-STATIVES):

- a. A Osilek a ta er a **mi/rael** a chis-el.  
 D Osilek TOP one P D PAST.travel D news-3SGP  
 “Osilek was very well-known.” (lit. “Osilek was one of the (ones who)se news traveled.”) [OO 11]
- b. A Ignacio Anastacio a **kiltmekl-ii** e oders-ii el  
 D Ignacio Anastacio TOP PAST.prepare.PF-3SGO and offer.PF-3SGO L  
 mo er a Court.  
 go P D Court  
 “Ignacio Anastacio prepared it and is offering it to the Court.”  
 [Tia Belau, 12 October 2009]
- c. Ke **di/lu** el kmo ng mo omek-oad er a ngelek-el  
 2SG= PAST.say L C 3SG= AUX.FUT CAU-die ACC D child-3SGP  
 a babii?  
 D pig  
 “Did you say he is going to kill the baby pig?” [CB 3]

(323) PAST TENSE WITH *mle* AUXILIARY (STATIVES):

- a. A bech-ik a **mle** smecher.  
 D wife-1SGP TOP AUX.PAST INTR-sick  
 “My wife was sick.” [Josephs 1990: 204]
- b. Ng kmal **mle** me-rau.  
 3SG= very AUX.PAST INTR-rich  
 “He was very rich.” [Chedaol Biblia, Matthew 19:22]
- c. A Toki a **mle** medenge a tekoi er a Siabal.  
 D Toki TOP AUX.PAST know D language P D Japan  
 “Toki used to know Japanese.” [Josephs 1990: 146]

It has already been shown in several examples, repeated below, that the *mle* auxiliary is used to express past tense with resultative predicates, rather than the *-il-* infix.

<sup>6</sup>The auxiliary *mle* also forms the past tense of some eventive verbs borrowed from other languages, such as *harau* “pay” (cf. Japanese *harau*).

(306a) A lluich el ngikel a **mle** **b/urech** a bdel-ul (er a dachelbai  
 D 20 L fish TOP AUX.PAST RES.spear D head-3PLP (P D skillful  
 el chad er a chei).  
 L man P D sea)

“20 fish were speared in the head (by the skillful fisherman).”

(306c) Ng **mle** **ul-siich** a reng-uk (er kau).  
 3SG= AUX.PAST RES.CAU-tight D heart-my (P you)

“I was proud (of you).” (lit. “My heart was tightened (by you).”)

(313a) A blai a **mle** **ulek-beches** er a chels-el a ta  
 D house TOP AUX.PAST RES.CAU-new P D space.inside-3SGP D one  
 el buil.  
 L month

“The house was renovated in a month.”

(313b) A siasing a **mle** **l/uches** er a chels-el a eim  
 D picture TOP AUX.PAST RES.draw P D space.inside-3PLP D five  
 el bung.  
 L minutes

“The picture was drawn in five minutes.”

Whatever the relevant property is that drives the differing past tense morphology on eventive and stative verbs, resultatives pattern with stative verbs and adjectives rather than eventive verbs. This result aligns with the *mle* auxiliary selection facts presented above in Sect. 6.2.1.

### 6.2.3 Truth Conditions of Resultatives

The syntactic similarities between verbal passives and resultatives highlighted in Sect. 6.1.2 suggest that they are in some sense related. Nevertheless, resultatives differ from passives in their truth-conditional semantics. Basically, passives describe the same types of events or states that their corresponding transitive variants describe, whereas resultatives describe stative eventualities that arise as the result of a particular event’s completion. The contrast comes out very clearly under negation; consider (324). The sentences in (324a) and (324b) have different truth conditions. The passive sentence in (324a) is compatible with a scenario in which no house exists because the building of the house has not yet begun. The resultative sentence in (324b), by



contrast, is not compatible with this scenario—it describes an unfinished house. The difference is represented pictorially in (325).

- (324) a. A blai a dirkak **le-me-ruul**.  
 D house TOP not.yet 3S.IRR-PASS-make  
 “The house is not built yet.” PASSIVE
- b. A blai a dirkak **le-rruul**.  
 D house TOP not.yet 3S.IRR-RES.make  
 “The house is not built yet.” RESULTATIVE

(325) TWO CONTRASTING SCENARIOS INVOLVING HOUSE BUILDING:

- a. *No building has begun.* ⇒ describes (324a), not (324b)



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b. *The building is unfinished.* ⇒ can describe (324b)



Photo *Unfinished Houses* (<http://flic.kr/p/dKwZVG>) by Susie Cagle is licensed under CC BY 2.0 (<http://creativecommons.org/licenses/by/2.0>). Cropped/desaturated from the original.

I take the differences in the pattern of (324b)’s compatibility with the two scenarios in (325) to arise from the semantics of *rruul* “made.” If resultatives like *rruul* describe target states that obtain as a result of the completion of an event, then it makes sense that (324b) is incompatible with scenario (325a), since the event has not yet begun.<sup>7</sup> An anonymous reviewer expected slightly different truth-conditional judgments here, and asks the following question. While (324a) might not be compatible with the scenario in (325b), why isn’t (324b) compatible with the scenario in (325a), since the house is clearly not yet in a built state if it hasn’t even been begun? The reviewer suggests that perhaps the topicalized DP *a blai* “the house” comes with

<sup>7</sup>Cf. Dubinsky and Simango 1996: 750 for a similar contrast in Chichewa, shown below in (i).

- (i) CHICHEWA: [Dubinsky and Simango 1996: 750, ex. 2a–b]
- a. Nyemba si-zi-na-phik-**idwe**.  
 beans NEG-AGR-PAST-cook-PASS  
 “The beans were not cooked (at all).” PASSIVE
  - b. Nyemba si-zi-na-phik-**ike**.  
 beans NEG-AGR-PAST-cook-STAT  
 “The beans were not cooked.” STATIVE (RESULTATIVE)

a presupposition of existence, so that speakers disfavor a reading of (324b) where no part of the house has come into being yet. I have rechecked and confirmed the judgments with native Palauan speakers, and it indeed seems like this is plausible.

This has interesting implications for where the resumptive pronoun bound by the topicalized DP *a blai* in (324a–b) is introduced in the structure. If the resumptive pronoun is introduced inside the passive  $\nu$ P in (324a), then this is compatible with a reading where the DP is interpreted inside the scope of negation, meaning something roughly like “There does not yet exist a house which is being built.” In (324b), however, if the resumptive pronoun must be interpreted outside the scope of negation (as seems to be the case), that might suggest that it is introduced outside of the  $\nu$ P, meaning something roughly like “There exists a house such that it is not yet in a built state.” The reviewer suggests that the  $\nu$ P-external position in which the resumptive pronoun is introduced is the specifier of the resultative *a*P; binding a PRO inside  $\nu$ P. Put differently, Palauan resultatives involve a control structure. I explore this possibility in more detail below in Sect. 6.3, where I lay the groundwork for a semantics associated with this structure.<sup>8</sup>

The contrast in the truth conditions of (324a) and (324b) suggests that in addition to a (non-stative) eventive component, the denotation of a resultative predicate includes a stative component that must have some duration, possibly persisting to the present. This fact aligns with the morphosyntactic evidence of stativity presented above, i.e., the auxiliary selection and past tense formation facts.

### 6.3 Argument Structure of Resultatives

A possibly controversial aspect of the syntactic analysis in Fig. 6.1 is the fact that the surface DP subject of resultative predicates is argued to be in a control structure: the DP in the specifier of *a*P binds a co-referent PRO in the complement to the  $\sqrt{\text{ROOT}}$ . This structure in some sense treats the subject simultaneously as an external argument and an internal argument (and resultatives as simultaneously unergative and unaccusative). I argue that this structure is motivated empirically, both syntactically and semantically, and that it falls out from the conclusions about the empirical properties of resultatives that emerged from the discussion in Sects. 6.1–6.2. The data suggests that resultatives have a complex event structure with two eventualities involved, in which a completed event brings about an ongoing resulting state. The argument structure I propose for resultatives takes this seriously: each of the two DPs in the structure proposed in Fig. 6.1 at the beginning of this chapter receives a single  $\theta$ -role and is a participant in only one of the two eventualities, but the two DPs must be co-referent. Below, I outline the rationale behind this proposal.

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<sup>8</sup>I thank the reviewer wholeheartedly for this astute and very interesting observation, as well as for suggesting the control analysis.

Different researchers have proposed that adjectives are characteristically ergative (i.e., they have internal arguments; see Abraham 1983; Toman 1986; Koster 1987: 264), can only be unergative (i.e., they have external arguments; see Burzio 1986; Levin and Rappaport 1986; Stowell 1991), or fall into one or the other category, depending on the adjective (Cinque 1990). As was mentioned in footnote 16 on p. 74 and footnote 15 on p. 256, there is at present little clear evidence in Palauan for a category A(djective) to distinguish adjectives from stative verbs, but given the proposals that the category A is universal (i.a., Baker 2003; Dixon 2004), I tentatively assume that resultatives are adjectival, though not much is lost if it turns out that we should label the morpheme corresponding to *-(e)l-* as  $v_{[RESULTATIVE]}$  instead of  $a_{[RESULTATIVE]}$ .<sup>9</sup>

I begin by introducing a tentative semantics for the resultative *a* head—which will be revised below—based on the work of Kratzer (2000, 2005). Consider the denotations for the passive  $vP$ , the resultative *a* head, and the combined resultative *aP* in (326), based on example (301b), which is also repeated below.

(301b) A babier a **luches**.

D letter TOP RES.write

“The letter is written.”

[Josephs 1997: 273, ex. 17]

(326) KRATZERIAN SEMANTICS OF RESULTATIVE FORMATION (to be revised):

a.  $\llbracket vP_{[PASSIVE]} \rrbracket = \lambda s \lambda e$  [WRITE(*e*) & EVENT(*e*) & WRITTEN(letter)(*s*) & CAUSE(*s*)(*e*)]

b.  $\llbracket a_{[RESULTATIVE]} \rrbracket = \lambda \mathfrak{R} \lambda s \exists e . \mathfrak{R}(s)(e)$

c.  $\llbracket aP_{[RESULTATIVE]} \rrbracket = \lambda s \exists e$  [WRITE(*e*) & EVENT(*e*) & WRITTEN(letter)(*s*) & CAUSE(*s*)(*e*)]

[cf. Kratzer 2000: 391, ex. 14]

Following Kratzer (2000, 2005), I propose that the resultative *a* head (as defined in (326b)) functions to existentially quantify the event argument of a passive  $vP$  that also contains a target state component (Parsons 1990: 234–235). That Palauan resultatives formed from the infix *-(e)l-* denote (or at least *can* denote) what Parsons calls target states is indicated by their ability to co-occur with *dirk* “still,” as shown in (327).

<sup>9</sup>Regardless of whether Palauan resultatives are verbal or adjectival, I suggest that the DP subjects of resultatives merge as external arguments introduced by the outermost category-defining head that gives the resultative its form, i.e., the morpheme that is spelled out with the resultative infix *-(e)l-*. cf. Sabbagh 2011 for an analysis of adjectival passives in the closely related language Tagalog which has interesting similarities to (and differences from) the present approach.

(327) TARGET STATE RESULTATIVES CO-OCCUR WITH *dirk* “still”

- a. A teki-ngel a Rubak a m/lo er a Jeremia er se er  
 D words-3SGP D Lord TOP PAST.go P D Jeremiah P that.(time) P  
 a **dirk le-che/simer** er a mekesekes-ir a re-mengkar.  
 D still 3S.IRR-RES.imprison P D yard-3PLP D PL-guard

“The words of the Lord came to Jeremiah while he was still imprisoned in the palace courtyard.” [Chedaol Biblia, Jeremiah 39:15]

- b. Kemi a **dirk rrengodel** er a kngt-miu.  
 you.PL TOP still RES.bind P D sins-2PLP

“You are still lost in your sins.” [Chedaol Biblia, 1 Corinthians 15:17]

The ability to co-occur with *dirk* “still” suggests that the resulting state is not permanent (i.e., not a *resultant* state, in Parsons’s terminology).<sup>10</sup>

It is interesting to note that the semantics proposed in (326) does not ban resultatives from being formed from transitive *v*Ps. And yet, resultatives simply cannot have transitive argument structure in the active voice. This is a natural fact of German and English resultatives, (possibly) the Malagasy *tafa-* resultative, and the Greek *-tos* resultative (none of which exhibit agentivity effects; see Kratzer 2000 for German, Emonds 2006 for English, Travis 2005b for Malagasy, and Anagnostopoulou 2003 and Alexiadou and Anagnostopoulou 2008 for Greek). But Palauan clearly allows external arguments to appear in oblique *er*-phrase PPs even in resultatives (with associated agentivity effects if the DP in the *er*-phrase is an agent), as do the Malagasy *voa-* resultative and the Greek *-menos* resultative.

The fact that external arguments of resultatives must be oblique or implicit is stipulated on the present analysis via selection: the resultative *a* head may only select passive *v*Ps, not transitive *v*Ps. But this is more of a descriptive generalization than an analysis. There is no semantic restriction banning resultatives formed from two-place predicates; even derived two-place predicates. For instance, resultatives can be formed from canonically intransitive predicates that have been causativized, as long as their arguments are realized in the right way. The internal argument must serve as the subject, and the causer must be oblique, as in (308b), repeated below. Trying to force a transitive argument structure in which the internal argument is realized as a direct object is ungrammatical, as in (328).<sup>11</sup>

<sup>10</sup>Though note the following forms which warrant further investigation as it seems like they could possibly be construed as permanent with the proper context: *ulchis* “emptied,” *ulekngiis* “dried in the sun,” *ulekdirt* “dried out,” and *chelerrumet* “washed out”.

<sup>11</sup>Note that due to the homophony of the accusative case marker *er* and the preposition *er* that introduces the equivalent of a passive *by*-phrase, (328) is grammatical on the (irrelevant) nonsensical interpretation *My job was exhausted by me*.

(308b) Ak mle **ulek-saul** (er a re-ngelek-ek).  
 1SG= AUX.PAST RES.CAU-tired (P D RE-child-1SGP)  
 “I was exhausted (by my children).”

(328) \*A urur-ek a mle **ulek-saul** er ngak.  
 D job-1SGP TOP AUX.PAST RES.CAU-tired ACC me  
 (“My job (was) exhausted me.”)

Since there is no problem with having both a theme argument and an initiator argument represented in the semantics of resultatives, as in (308b) above, the fact that we do not see sentences with transitive resultatives like those in (328) is likely due to a syntactic restriction of some sort. What is at issue is that there is no inherent incompatibility between resultatives and initiators (and external arguments more generally), but it seems to be the case that initiators (and other external arguments) cannot be subjects, but rather must be implicit or realized in an oblique *er*-phrase. If the syntactic stipulation that resultative *a* selects a *passive* vP were removed, then a structure in which resultative *a* selects a transitive vP should be well-formed according to the Kratzerian semantics in (326), yielding transitive resultative predicates that are fully grammatical, contrary to what we see in (328).

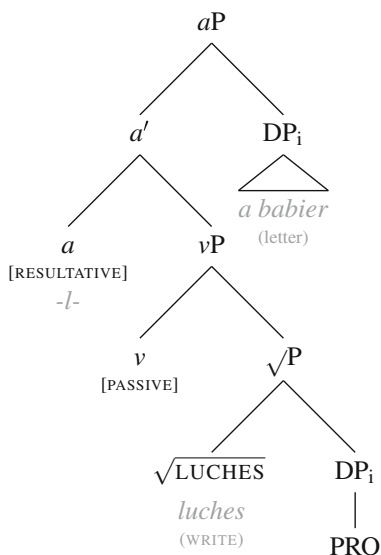
So what is the source of the selection relationship between resultative *a* and a passive vP? The answer may lie at the syntax–semantics interface. If resultative *a* functions to transform an eventive predicate into a complex stative predicate, this complex predicate could require a new argument (of which the state holds). This view amounts to eliminating the target state component from the semantics of the base predicate and locating it instead in the semantics of resultative *a* itself, treating the resultative *a* head as a predicate as well. Consider the revised semantics in (329) for the structure shown in Fig. 6.2 for (301b) (approx. “The letter is written”).

(329) A DIFFERENT EVENT SEMANTICS FOR RESULTATIVE FORMATION:

- a.  $\llbracket \sqrt{\text{LUCHE}} \rrbracket = \lambda x \lambda e [\text{WRITE}(x)(e) \ \& \ \text{EVENT}(e)]$
- b.  $\llbracket \text{DP} \rrbracket = \text{PRO}$
- c.  $\llbracket \text{vP}_{[\text{PASSIVE}]} \rrbracket = \lambda x \lambda e \exists y [\text{WRITE}(x)(e) \ \& \ \text{EVENT}(e) \ \& \ \text{INITIATOR}(y)(e)]$   
 . PRO
- d.  $\llbracket a_{[\text{RESULTATIVE}]} \rrbracket = \lambda \mathfrak{R} \lambda z \lambda s \exists e [\mathfrak{R}(s)(e) \ \& \ \text{CAUSE}(s)(e) \ \& \ \text{STATE}(z)(s) \ \& \ z = x]$
- e.  $\llbracket a\text{P}_{[\text{RESULTATIVE}]} \rrbracket = \lambda x \lambda z \lambda s \exists y \exists e [\text{WRITE}(x)(e) \ \& \ \text{EVENT}(e) \ \& \ \text{INITIATOR}(y)(e) \ \& \ \text{CAUSE}(s)(e) \ \& \ \text{STATE}(z)(s) \ \& \ z = x] . \text{PRO} . \text{letter}$

Each of the two DPs in the structure in Fig. 6.2 is an argument in one of the predicates in the complex predicate in (329e), from which they get their  $\theta$ -roles. PRO is an

**Fig. 6.2** Resultative predicate argument structure (for *lluches* “written”)



argument of the embedded verb (formed from passive  $v$  and the root  $\sqrt{LUCHES}$  “write”), corresponding to the variable  $x$  in (329). The resultative  $a$  selects a DP argument of type  $e$  in its specifier, which saturates the argument represented by the variable  $z$  in the complex resultative predicate. After functional application, the denotation of the resultative predicate  $aP$  is shown in (330).

(330) DENOTATION OF THE RESULTATIVE  $aP$  in Fig. 6.2:

$$\llbracket aP_{[RESULTATIVE]} \rrbracket = \lambda s \exists y \exists e [\text{WRITE}(\text{PRO})(e) \ \& \ \text{EVENT}(e) \ \& \ \text{INITIATOR}(y)(e) \ \& \ \text{CAUSE}(s)(e) \ \& \ \text{STATE}(\text{letter})(s) \ \& \ \text{letter} = \text{PRO}]$$

The issue that remains is how we ensure that the DP of which the resulting state predicate holds is co-referent with the DP that is affected by the event expressed by the passive verb (see Levin and Rappaport 1986 for discussion). The solution might be a consequence of the Case Filter. It is generally assumed that *PRO* does not need Case (though see Sigurðsson 1991; Chomsky and Lasnik 1993; Martin 2001), allowing it to appear in configurations like that in Fig. 6.2 which does not contain a Case-licensing head (finite T or transitive  $v$ ) anywhere. However, if the complement of the root  $\sqrt{LUCHES}$  were any other DP besides *PRO*, it would need Case, and we would be left with a Case Filter violation.

The pieces are now in place to explain why transitive resultatives are unattested. The only way that the binding relation between the specifier of the resultative  $aP$  and the internal argument of the embedded  $vP$  can be established is through passivization: by demoting the external argument, there is no intervening DP (in the Relativized Minimality sense of Rizzi 1990, 2001) in a position that can disrupt the

binding relation between the two. Even setting Relativized Minimality aside, if we follow the now standard assumption that transitive  $v$  is a phase head, then the Phase Impenetrability Condition, repeated below from Chap. 1, would make the internal argument of a transitive  $vP$  inaccessible to the argument of resultative  $a$ .

- (2) PHASE IMPENETRABILITY CONDITION: In phase  $\alpha$  with head H, the domain of H is not accessible to operations outside  $\alpha$ ; only H and its edge (the residue outside of H': either specifiers or elements adjoined to HP) are accessible to such operations. [Chomsky 2000: 108, ex. 21; Chomsky 2001: 13, ex. 7]

The only DP that could be bound by the DP in the specifier of resultative  $a$  would be the external argument DP in the transitive predicate, causing a clash in the semantics. Because there would be no way for the DP affected by the event denoted by the  $vP$  to be co-referent with the DP on which the resultative  $a$  predicates, the  $z = x$  component in (329) would be false.

It is worth touching on one final point. In Sect. 6.2.3, it was mentioned that the truth conditions of (324) with respect to the two scenarios in (325) suggest that resultatives, or at least those in topicalization structures, carry a presupposition of existence for their arguments. The truth conditions suggest that in negative sentences, the DP argument of the resultative is base-generated outside the scope of negation. The control structure in Fig. 6.1 satisfies this condition: the resumptive pronoun that is co-referent with the topic is base-generated in the specifier of the resultative  $aP$ , receives Nominative Case from finite T, and raises to Spec TP to serve as the subject of the clause. This resumptive pronoun in turn binds the PRO in the embedded passive  $vP$ . In canonical verbal passives, by contrast, there is no control structure. There is just the passive  $vP$  predicate. The resumptive pronoun that is co-referent with the topic is base-generated directly within the passive  $vP$ , as the complement to the  $\sqrt{\text{ROOT}}$ , and can receive narrow scope with respect to negation.

## 6.4 Consequences of the Analysis

In this section, I explore several consequences of the analysis of Palauan resultatives proposed in this chapter. The first involves  $\psi$ -idioms of the variety encountered in Chap. 4. We saw evidence that the idiomatic interpretation of  $\psi$ -idioms is available whenever the  $\psi$ -predicate and its  $\psi$ -argument are string adjacent, regardless of their structural relationship. If the structural analysis of resultatives depicted in Fig. 6.1 is correct, then it provides an excellent testing ground for the string adjacency hypothesis. In a resultative, the  $\psi$ -argument DP must be base-generated in the specifier of resultative  $a$ , much higher than the  $\psi$ -predicate root. However, since the complement of the  $\psi$ -predicate root must be an unpronounced instance of PRO (and not a root itself), it is possible for the  $\psi$ -argument to appear string adjacent to the  $\psi$ -predicate. In such a structure, the  $\psi$ -predicate neither selects the  $\psi$ -argument (but



rather it selects the PRO that the  $\psi$ -argument binds), and arguably never forms a constituent with the  $\psi$ -argument at any stage of the derivation. However, the string locality constraint in (187) predicts that idiomatic interpretations should nevertheless be available whenever string adjacency is obtained.

This is exactly what we find in (331) below, which contains the  $\psi$ -idiom *olsebek er a rengul* “worry sb.” (lit. “make sb.’s heart fly”). Compare the resultative form in (331c) to the causative form in (331b) and the intransitive form in (331a).

- (331) a. Ng **suebek** a reng-uk.  
 3SG= fly D heart-my  
 “I am worried.” (lit. “My heart was flying.”) INTRANSITIVE
- b. Ke **ol-sebek** er a reng-uk.  
 2SG= CAU-fly ACC D heart-my  
 “You are worrying me.” (approx. “You are making my heart fly.”)  
 CAUSATIVE
- c. Ng **ul-sebek** a reng-uk (er kau).  
 3SG= RES.CAU-fly D heart-my (P you)  
 “I am worried (by/about you).” (approx. “My heart is flown (by you).”)  
 RESULTATIVE

Resultative forms of a handful of additional transitive  $\psi$ -idioms are given in Table 6.1. In each of the transitive variants (in the left column), the  $\psi$ -argument is grammaticized as a direct object and is marked with the accusative case marker *er* (when singular; see (115) in Chap. 3 for details). In each of the resultative forms, the  $\psi$ -argument is grammaticized as a subject and is not marked with accusative case.

Another consequence of the analysis is that it in principle allows the resultative *a* head to merge freely with any passive  $v$ P in the syntax, even those that lack a target state component, like *know* or *own*.<sup>12</sup> I have never encountered a resultative form of *medengei* “know” in Palauan, and Palauan has no dedicated verb for *own*. But there is a small class of optionally transitive (but usually intransitive) denominal

<sup>12</sup>Note that in English, unlike in German, adjectival passives may be formed from certain verbs which lack target states, such as *know* and *own*, as in (ii) below (and indicated by *un-* prefixation and/or the presence of *remain*; see Emonds 2006 and references therein for further details).

- (ii) a. Ms. Kennedy is a paradox: a universally recognized person who **remains** largely **unknown** by the public, and has no obvious appetite for the glad-handing of the campaign trail.  
 [“As Privacy Ends for Kennedy, a Rough Path Awaits,” *The New York Times*, 16 December 2008]
- b. As Thomas Jefferson wrote [...], communications between elected officials and their constituents should be “free, full and **unowned** by any.”  
 [“Two Cents’ Worth for Nothing,” *The New York Times*, 29 September 1991]

**Table 6.1** Some resultatives formed from  $\psi$ -idioms

Transitive $\psi$ -Idiom	Resultative Form
<i>olsebek er a rengul</i> “worry sb.” (lit. “make sb.’s heart fly”)	<i>ulsebek a rengul</i> “worried” (lit. “one’s heart is made to fly”)
<i>omtebechel er a rengul</i> “(re)assure sb.” (lit. “hold sb.’s heart steady”)	<i>ultebechel a rengul</i> “confident” (lit. “one’s heart is held steady”)
<i>melamet er a rengul</i> “do as one pleases” (lit. “straighten one’s heart”)	<i>telematel a rengul</i> “pleased; happy” (lit. “one’s heart is straightened”)
<i>omosech er a rengul</i> “make sb. suspicious” (lit. “break open sb.’s heart”)	<i>blosech a rengul</i> “suspicious” (lit. “one’s heart is broken open”)
<i>olsarech er a rengul</i> “hold in one’s emotions” (lit. “pin down one’s heart”)	<i>ulsarech a rengul</i> “stoic” (lit. “one’s heart is pinned down”)

verbs formed from the prefix *ou-*, e.g., *oublai* “own a (particular type of) house” (cf. *blai* “house”), *oucharm* “own/keep a (particular type of) animal or pet” (cf. *charm* “animal”), *oubilas* “own a (particular type of) boat” (cf. *bilas* “boat”), etc., where the optional direct object DP specifies which type of house, animal, boat, etc. is owned. While the transitive variants of these verbs of the *ou*-NOUN type may occasionally form verbal passives, Josephs (1990) does not list any resultative forms of these verbs, and I have not encountered any in naturally occurring contexts.

It is important to note that due to the selectional restriction on resultative *a* that requires that it merge with a passive  $\nu$ P, this analysis of resultatives depends on my classification of intransitive verbs in Chap. 5, in which passive  $\nu$ P, unaccusative  $\nu$ P, and stative *a*P are distinguished featurally in the syntax. But the selectional restrictions of resultative *a* could have been formulated differently, perhaps permitting intransitive  $\nu$ P complements of any type (including unergatives and unaccusatives) or just intransitive  $\nu$ Ps with internal arguments (including unaccusatives, but barring

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(Footnote 12 continued)

Kratzer (2000) reports that comparable adjectival passives of *wissen* “know” and *besitzen* “own” are impossible in German, as shown in (iii).

- (iii) a. \*Die Antwort ist gewusst.  
“The answer is known.” [Kratzer 2000: 389, ex. 9b]
- b. \*Dieses Haus ist besessen.  
“This house is owned.” [Kratzer 2000: 389, ex. 9a]

unergatives). With simple modifications like these, the analysis still predicts that the derivation will crash at LF if the event denoted by the  $\nu$ P doesn't have a target state component. For instance, there are unaccusatives of achievement and existence which do not have resultative forms in English, e.g., *appear* in (332) and *flourish* in (333). They do not have target states, but might be argued to have resultant states, rendering the ungrammaticality of the (b) sentences (which contain adjectival predicates) and the (c) sentences (which contain attributive adjectives) potentially surprising.

(332) UNACCUSATIVE OF ACHIEVEMENT *appear*:

- a. The stars appeared.
- b. \*The stars are/remain (un)appeared.
- c. \*<sub>[DP</sub> the (un)appeared stars ]

(333) UNACCUSATIVE OF EXISTENCE *flourish*:

- a. My plants flourished.
- b. \*My plants are/remain (un)flourished.
- c. \*<sub>[DP</sub> the (un)flourished plants ]

If Palauan resultatives are compatible only with  $\nu$ Ps that denote a target state, then resultatives should not be able to be formed from a root corresponding in meaning to *appear* or *flourish*, since the Palauan verbs should lack target states as well. A natural empirical question to ask at this point is whether the class of roots that have resultative forms shares any semantic properties. A detailed study of the lexical semantics of verbs of different languages (such as Levin 1993 for English) is necessary to find answers to empirical questions like this one.

## 6.5 Category-(re)defining Heads

This chapter in particular highlights the idea that category-defining heads (instances of  $v$ ,  $a$ , and  $n$ ) can merge with constituents larger than  $\sqrt{P}$ . Specifically, the data involving Palauan resultatives provides empirical evidence for cases in which  $a$  can merge with a  $\nu$ P instead of a root or  $\sqrt{P}$ . This analysis of resultatives has implications for the theory of syntactic categories. If correct, it shows that the category of a predicate can change in the syntax after it has been specified. The idea that category-defining morphology can also be category-changing is certainly not new, but with the availability of a framework like Distributed Morphology, it becomes possible to show that when category-changing derivational morphology is introduced

syntactically rather than in the lexicon, a predicate can behave like a verb at one level of the hierarchical structure (and below), but like an adjective at another level of the hierarchical structure (and above). This type of behavior is exactly what we might predict in a theory that admits category-neutral roots, where category-defining heads are introduced structurally, in positions that bear a particular relation (i.e., head–complement) to the syntactic objects whose categories they define.

The empirical goal of the chapter was to find a unified explanation for the syntactic and semantic properties of resultatives, including:

- i. the agentivity effects associated with resultatives,
- ii. the co-occurrence of resultatives with aspectual PP modifiers,
- iii. the auxiliary selection patterns associated with resultatives, and
- iv. the truth-conditions of resultatives, which differ from those of passives.

The result is an analysis that echoes that of Lieber’s (1980) and Embick’s (2004) analyses of English resultatives. On Lieber’s analysis, English and German resultatives are adjectival, and a null suffix attaches to the (verbal) participle to change the category from V to A. The difference between languages like German and English on one hand and Palauan on the other, then, is that the category-changing morpheme is overt in Palauan (the *-(e)l-* infix). Furthermore, recent experimental research on verbal passives and “adjectival passives” (resultatives) suggests that, in some languages, resultatives require longer processing times than passives do. For instance, Stolterfoht et al. (2010) analyze the differences in processing time between passives and resultatives as a by-product of a syntactic category conversion from V to A.<sup>13</sup> On the present analysis, this redefinition of a resultative predicate’s category has visible effects in the syntax—the predicate’s initial category is clearly verbal, and its final category is clearly adjectival. In some sense, then, the term “adjectival passive” is quite suitable for the analysis of Palauan resultatives presented here.

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<sup>13</sup>However, it is unclear whether similar differences in processing time would obtain in languages whose passives and resultatives are morphologically distinct, like Palauan. It’s an empirical question, and one which must be left for future research.

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## Chapter 7

# Overall Conclusions

In this book, I have investigated various empirical phenomena and theoretical issues in Palauan syntax in order to shed light on how predicates and words more generally are built in the syntax. The results also bear on the nature and organization of the grammar, particularly with respect to the relationship between the lexicon and the narrow syntax. This last chapter reviews the ways in which the various empirical investigations have addressed the research questions posed in Chap. 1 concerning the formal status of words and predicates in Palauan and in linguistic theory, the distribution of features across different elements in a phrase marker, and how these features are realized as words. The aim is to integrate the results of the various chapters into a cohesive picture of how the individual investigations fit together to argue for a particular theory of word formation (for summaries of each individual chapter, see Chap. 1, Sect. 1.3).

The first three chapters serve to lay out the particulars of Palauan syntax—phrase structure, Case licensing, agreement, and so forth—and form the foundation for the analysis of the data in the later chapters. First, it was shown in Chap. 1 that Palauan has discourse-configurational properties (Kiss 1995: 6), with a dedicated syntactic position for topics. Empirical evidence drawn from the domain of demonstrative DPs and plural marking on nominalizations suggests that a refinement of Georgopoulos's (1991) analysis of topicalization structures is necessary. I proposed that the *a* morpheme that appears in topicalizations is not a determiner *a*, but instead is a topic marker, perhaps cognate with Tagalog *ay*, as suggested by DeWolf (1988). It is of category Top(ic) and heads the only projection in Palauan that allows a leftward-branching specifier, presumably for discourse-functional or information-structural reasons. The DP in its specifier binds a resumptive pronoun in an argument position, just as in Georgopoulos's (1985, 1991) original analysis.

Next, I demonstrated that one way of analyzing the possessor ascension construction is to assume that Palauan has multiple Agree (Hiraiwa 2001, 2005), where a Genitive possessor DP might raise to Spec TP to satisfy an [EPP] feature on finite T (rather than the Nominative DP). There are both morphological and syntactic reflexes of the process: subject agreement targets the possessor DP, and adjunct PPs can intervene between the possessor DP and the possessee DP from which it has extracted.



The possessor shares its  $\varphi$ -features with finite T and moves to Spec TP to satisfy the [EPP] feature. The natural question (and one which, since at least the 1980s, has puzzled syntacticians assuming some version of the Case Filter) is how the remnant DP from which the possessor is extracted is licensed with Case. I proposed that if Agree can be instantiated more than once, then the [NOM] feature on finite T can value the unvalued [\_\_CASE] feature on the possessee DP via a separate instantiation of Agree. The situation is reminiscent of the Icelandic quirky dative subject construction, but the crucial difference is that subject agreement morphology matches the DP situated in the Spec TP position in Palauan, while it prefers to match the lower DP that gets Nominative Case in Icelandic.

The (in)famous Western Austronesian “voice morphemes” have been reanalyzed in modern Palauan as category-defining morphemes like *v* and *a* that are bundled with various types of other features, including aspect, voice, information about valence, and probably others. Evidence for the bundling of aspect together with transitive *v* morphemes—either directly or via feature unification—arises from the aspectually-driven split in how accusative case morphology is realized, assuming that structural Accusative Case is licensed by some instance of transitive *v* via Agree. Treating these *v* affixes either as lexical items that are inserted as instances of a head *v* (in a theory like Minimalism) or as morphological exponents of feature bundles that are inserted into the *v* position post-syntactically (in a theory like Distributed Morphology), the result is that the morphophonological material that corresponds to “verbs” in Palauan is distributed over at least two syntactic heads. Given the morphological complexity of Palauan verbs, it is not inconceivable that the actual number is greater than two: tense and mood information is presumably encoded morphologically on additional heads higher up in the structure, e.g., T.

Another theme that received attention throughout much of the book is the relationship between *v* and its possible set of XP complements. We do not find unlimited combinations of *v* and roots in the inventory of Palauan verbs. To restrict the set of possible predicates to those that are actually attested, I concluded that category-selection is too strict a notion, whereas allowing *v* heads and XP complements to combine freely (and appealing to the semantics to rule out incompatible combinations) is too loose a notion. I proposed that something like feature unification seems to be more promising. The result is a theory that is effectively a hybrid of the Minimalist theory of Chomsky (2000, 2001, et seq.), the Extended Projection Theory of Grimshaw (2005), and the theory of Head-Driven Phrase Structure Grammar of Pollard and Sag (1994) and Sag et al. (2003). The combination of the feature unification mechanism and the Case Filter should suffice to constrain the possible combinations of *v* and their XP complements enough to ensure that the right combinations of predicates are constructed syntactically.

In this vein, the evidence from  $\psi$ -idioms and resultatives suggests that the category of not only words but entire XPs can change when they Merge with a category-defining head like *v*, *n*, or *a*. The striking cases are those in which a morpheme (i.e., a terminal node in the phrase structure) can merge with a phrasal XP but form a morphophonological word with just a proper subpart of that XP. One such case is the nominalizations of  $\psi$ -idioms created via Merge with *n*, resulting in the argument DP

being grammaticized as a possessor. Another is the case of resultative *a* combining with an entire passive *v*P, changing its category to form an *a*P. In both of these cases, the morpheme corresponding to *v*, *n*, or *a* forms a morphophonological word with a root but has syntactic and/or semantic effects on its entire complement: an instance of transitive *v* can license structural Accusative Case, the nominalizer *n* can form a DP from a phrasal idiom headed by an abstract noun which can itself be selected as an argument of another predicate, and resultative *a* transforms an event into a state, evidenced by its truth-conditional semantics and its interaction with tense and aspectual auxiliaries.

The sum of these various strains of analysis provide an answer to the questions about word formation posed in Chap. 1. The results presented in this book serve as strong evidence that words in Palauan do not enter the syntax fully formed and inflected. The numeration in Chomsky's (1995, 2000, etc.) Minimalism may instead contain bundles of abstract morphosyntactic features drawn from something like a pre-syntactic lexicon, and morphophonological material is inserted post-syntactically, as suggested first by Anderson (1982, 1992) in his theory of A-Morphous Morphology and elaborated in the theory of Distributed Morphology advanced by Halle (1990), Halle and Marantz (1993, 1994), Marantz (1997), Harley and Noyer (1999), and many others. Chapter 4, for instance, shows that nominal  $\psi$ -idioms can be constructed from bare nouns (which can then be turned into adjectives or verbs), and not just deverbal or deadjectival nouns, which lends particularly strong support to the theory of category-neutral roots and a syntactic theory of word formation. Furthermore, the constraint on locality of Palauan  $\psi$ -idiom chunks was argued to be impossible to formulate structurally, and I advocated an alternative post-syntactic constraint defined on precedence and adjacency which holds at the time of linearization.

Although much ground has already been covered in the previous descriptions and analyses of the structure of Palauan, this book represents a step forward in our understanding of various empirical phenomena that not only augments our knowledge of the structure of the language, but also how Palauan relates typologically to other languages in the Austronesian family and even unrelated languages spoken in Southeast Asia and the Pacific. The investigations themselves have led to new discoveries and generalizations about Palauan syntax and morphology that push beyond those in the existing descriptive literature, largely due to the increased use of naturally occurring data from written and other sources, like newspapers, books, and so forth. The structure of the language is now transparent enough to count Palauan among the class of well-studied languages which linguists can use to test predictions about different syntactic and morphological theories. Despite initially esoteric appearances, it seems that many empirical phenomena in Palauan can receive natural explanations using current theoretical mechanisms—including the operations Merge, Move, and Agree—which together enable us to generate basic clause structures that differ minimally from those of better-studied languages. The primary differences between languages then lie in the way different features are bundled and how they are later realized morphologically, i.e., in the outputs of various operations used to construct linguistic utterances and not in the set of operations themselves.

The conclusion is quite interesting from the biolinguistic perspective. If syntactic structures are built using universal operations like Merge, Move,<sup>1</sup> and Agree, then the fact that Palauan clause structure and the behaviors of different subclasses of the inventory of Palauan verbs are so similar to those of other languages is not surprising. If Universal Grammar provides a set of linguistic features and a set of operations we can use to manipulate them, then Palauan can be viewed as just another instance of one possible final state of the faculty of language, where these operations have manipulated the features into a particular pre-syntactic lexicon (containing a list of abstract feature bundles), and Palauan speakers acquire Vocabulary Items (part of which contain information about morphological exponents of particular bundles of features) that are stored in a post-syntactic Encyclopedia (to borrow the terminology from Distributed Morphology) or post-syntactic lexicon (adopting the term from A-Morphous Morphology).

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<sup>1</sup>Though see recent theories of syntax that eliminate Move as an operation distinct from Merge by relying on a relevant linearization algorithm to pronounce only particular copies of elements that Merge in more than one place. One such theory is that in Ramchand (2008).

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## Appendix

# Remarks on the Palauan Data

### Orthographic Standardization

In the interest of recognizing the efforts of those whose research on the Palauan language has made it possible to establish a standardized orthography, I present the Palauan data in the orthography found in Josephs (1997, 1999), the two-volume *Handbook of Palauan Grammar* that the Palauan *Olbiil er a Kelulau* (Senate) officially recognized as the written standard when they passed Bill No. 7–79 on 10 May 2007. The orthography in those volumes is that of Josephs’s earlier (1990) *New Palauan-English Dictionary*. This orthography has been taught in Palauan schools since the 1990s, and while most Palauans in their twenties or younger control it (as of 2009), those in their thirties or older are more likely to employ non-standard orthographies from the period before language standardization efforts began in the 1970s (see Yaoch et al. 1972; Anastacio et al. 1975; Blailes 1990, 2000). Much of the data in this book has been drawn from published Palauan materials that were not originally written in the standard orthography, but I have standardized it with the aid of native speaker consultants and Josephs (1990). The original sources are always cited for comparison (see below for a key to the citations).

Probably the first obstacle for any linguist interested in the morphological structure of Palauan is the system of complex morphophonological processes and alternations in the language. But Palauan morphophonology plays only the occasional minor role in this book. What is largely important for our purposes is the morphosyntactic correspondence between syntactic features and individual morphophonological forms; I have nothing new to say about the phonological derivations of surface morphemes that goes beyond the discoveries made in the pioneering dissertations of Wilson (1972a, b) and Flora (1974) on Palauan phonology and morphology. Before Wilson’s and Flora’s work, the relations between different words constructed from the same morphemes were often quite opaque. Even with the help of dictionaries like Josephs (1990), the aforementioned Palauan-English bilingual dictionary, and Ramarui and Temael (1999), a monolingual Palauan dictionary, non-native speakers of Palauan often find it difficult to parse complex words. For these reasons, I have opted to gloss as much of the morphology in the Palauan data as

possible, even if it is not immediately relevant to the discussion at hand. From a syntactic perspective, however, I have taken measures to present the data in a straightforward way (aiming for maximal faithfulness to its natural spoken or written form) and to restrict my own syntactic analysis to the prose and to phrase structure trees wherever possible. In other words, I have tried to avoid including null elements (viz., null pronouns, traces, operators, and gaps) and marking syntactic constituents with brackets directly in the Palauan data except where such marking is necessary—or at least helpful—to follow the discussion in the prose.

Most of the letters/graphemes in written Palauan correspond to phonemes that can be represented by the corresponding segments in the International Phonetic Alphabet, e.g., Palauan *b* is the phoneme /b/. Three notable exceptions are worth mentioning. The first is *ch*, which is invariably pronounced as a glottal stop [ʔ]. The *ch* digraph is a remnant of an earlier writing system developed during German occupation when the glottal stop was pronounced as a fricative [x]. Older Palauans that I have spoken with still remember their grandparents pronouncing *ch* this way. In modern Palauan usage the sound [x] has been completely replaced by [ʔ], but the *ch* spelling persists. The second is *e*, which represents either the full vowel [ɛ] in primary and secondary stressed syllables, or a schwa [ə] in unstressed syllables; the conditions are similar to those of English vowel reduction. Note that stress in Palauan is largely penultimate (with many semi-regular exceptions). The third is the digraph *ng*, which is a (phonemic) velar nasal /ŋ/ but can assimilate to be pronounced as [m] or [n]. There is no phonemic /n/ in Palauan.

## Glossing Conventions

When glossing Palauan language data, I use dashes (-) to separate morphemes and periods (.) to separate multiple glosses that are associated either with the same morpheme or with two distinct morphemes that are otherwise not easily separated from each other, such as those associated with non-concatenative morphology. As infixes present a problem for the linear arrangement of morphemes, I adopt *italics* to mark infixes within other morphemes, while corresponding glosses for infixes are also *italicized* and separated with a period, as in the case of (i) below, containing the infixes *-o-* in *soiseb* “enter” and *-m-* in *ngmasech* “climb.”

- (i) Ng mo-cha *soiseb* er a bl-il el mo *ngmasech* er aika el  
 3SG= go-ICP *INTR*.enter P D house-3SGP L go *INTR*.climb P these L  
 dech-il a kerebou el mo er a beb-ul e mo  
 manures-3PL.-HUMP D cows L go P D top.area-3SGP and go  
 dengchokl.  
 sit

“He (referring to a pig) got up to go indoors so he could climb to the top of the manure pile and sit down.”

[CB 21]

The verbalizer prefixes *meN-* and *oN-* trigger Austronesian nasal substitution (see Blust 2004 for a survey) whenever the following morpheme begins with a consonant. This nasal substitution is the only perceivable phonological distinction between these prefixes and *me-* and *o-*, which do not trigger nasal substitution. Thus, *meN-* and *oN-* are not separated with a dash from the following morpheme in the Palauan data, but they are glossed and separated from the following gloss with a period. An example of this convention can be seen below in (ii), where the verb *mengitakl* “sing” is formed from the root  $\sqrt{\text{CHITAKL}}$  and the imperfective verbalizer *meN-*.

- (ii) Ng mo-cha mengitakl ( $\approx meN-$  +  $\sqrt{\text{CHITAKL}}$ ).  
 3SG= go-ICP sing.IMPV VBLZ.IMPV sing  
 “She is about to start singing.”

[OO 12]

## Sources of Naturally Occurring Data

The Palauan data itself is taken from a variety of sources. Whenever possible, I have tried to augment data elicited from language consultants with data drawn from naturally occurring sources, which is not the easiest of tasks—very little written Palauan is available in any form. Data that is not cited is taken from my fieldnotes, based on fieldwork conducted in the greater San Francisco Bay Area between 2006 and 2010 and in Koror, Palau over the course of three fieldtrips: the first from August to September 2008, the second from February to April 2009, and the third from September to December 2009. Sentences that I have extracted from Palauan newspapers such as *Tia Belau* and *Roureor Belau* are cited in the format [ OF NEWSPAPER>, <DATE>]. Sentences from newspapers are usually taken from Palauan language advertisements, editorials, gossip columns, and official announcements. Many examples are taken from the Palauan language Bible, which was translated by missionaries and native Palauan speakers from the modern American English version of the *Good News Bible*. These examples are cited in the format [*Chedaol Biblia*, <ENGLISH BOOK NAME> <CHAPTER>:<VERSE>]. Much of the rest of the published data comes from Palauan language educational materials prepared by the Pacific Area Language Materials project at the University of Hawaii, the Palauan Ministry of Education in Koror, the Palau Society of Historians, and other sources, which I cite in the format [<CODE> <PAGE#>]; a key to the citation codes can be found below.

- AM Tmodrang, Masaharu. 1983. *Ak mileka er a ulengull er a skuul* (“What I did over summer vacation”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.

- BL Rehuher, Tina. n.d. *Beltik el reng* (“Love”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.
- BR Ais, Youlsau. 1983. *A beab me a rekung* (“The mouse and the land crab”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.
- CB Anastacio, Romana. 1980. *Charlotte el bubuu* (“Charlotte the spider”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa. Palauan translation of White (1952).
- CK Nabeyama, Rachel. n.d. *Charm me a klengar* (“Animals and life”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.
- CM Chiokai, Buik Redechor. 1971. *A cheldechedechal a Meluadeangel* (“The legend of Meluadeangel”). In Kesolei (1971: 7–9). Edited and revised as *Meluadcheangel* in Tmodrang (1997: 24–28.)
- CP Tkel-Sbal, Debbie. 1996. *Conversational Palauan*. Mangilao: Micronesia Language Institute, University of Guam.
- EI Otto, Maria. 1983. *Elilai me a ius me a uel* (“Elilai, and the crocodile and the turtle”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.
- IC Olsudong, Rita, Calvin T. Emesiochel, and Errolflyn T. Kloulechad. 1999. *Inventory of cultural and historical sites and collection of oral history in Kayangel and Ngarchelong states, Vol. 2*. Koror: Division of Cultural Affairs, Historic Preservation Office.
- IK Hezel, Francis X., and Sylvester Alonz. 1991. *Ikelesia Katolik er a chelsel Belau* (“The Catholic Church in Palau”). Koror: Catholic Media Center.
- KC Emesiochel, Margaret, Lorenza Chin, and Yorang Miner (eds.). 1981. *Kakerous el cheldecheduch* (“Various Stories”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.
- KK Marbou, Kalista. 1984. *A kot el klou el sils er a Rehina* (“Rehina’s biggest day”). Koror: Department of Education, Language Office.
- KM Faustino, Theodosia. n.d. *Keo me a Moku* (“Keo and Moku”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.
- KN Ruluked, Toyoko. 1983. *Kemril a ngikel* (“The fish’s tail”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.
- MI Ngirkiklang, Valentino. 1973. *Mongkii me a ius me a chedeng* (“Monkey, crocodile, and shark”). Koror: Micronesian Multilingual Materials Workshop.
- NB Ngiratecheboet, Rebes. 1971. *A cheldechedechal a Ngeleket Budel me a Ngeleket Chelsel* (“The legend of Ngeleket Budel and Ngeleket Chelsel”). In



- Kesolei (1971: 3–4). Edited and revised as *Ngeleketbudel me a Metechsel* (“Ngeleketbudel and Metechsel”) in Tmodrang (1997: 17–20).
- OO Ngodrii, Santos. 1971. *A cheldechedechal a Osilek me a Oreng* (“The legend of Osilek and Oreng”). In Kesolei (1971: 11–12). Edited and revised as *Osilek me a Oreng* “Osilek and Oreng” in Tmodrang (1997: 29–31).
- PC Tkel-Sbal, Debbie. 1992. *Ngalek er a Belau: Ngeso el mo er a sensei* (“The Palauan child: A teacher’s resource”). Mangilao: BEAM Center, University of Guam.
- RE Malsol, Ngiraibuuch, Johannes Ngirakesau, Yosko O. Ngiratumerang, Fritz Ngirusong, Baumert Babul, Ngiratereked Rdechok, Tulop Etumeleu, Ngirngeterang Iechad, Dirramei Kumangai, Paulus O. Sked, Edeluchel Eungel, Retechang Meduu, Chiokai Kloulubak, and Augustine Smau (Palau Society of Historians). 1995. *Rechuodel, Vol. 1* (“Traditional culture and lifeways long ago in Palau”). Koror: Ministry of Community and Cultural Affairs.
- SD Thomas, Mahensia. n.d. *Sechou me a Deroech* (“Sechou and Deroech”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.
- UB Umetaro, Steve. 1974. *Belau: Uchelel Belau er a Uab el me er a Miladeldil* (“Palau: The beginning of Palau from Uab to Miladeldil”). Koror: Department of Education.
- UR Rehuher, Maria. n.d. *Uldellomel el reng* (“Responsibility”). Honolulu: Pacific Area Language Materials (PALM) Project, Social Sciences Research Institute, University of Hawaii, Manoa.

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