

Engagement and information structure in interaction:
The intersubjective meaning of two discourse
markers in Motu

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I hereby declare that, except where it is otherwise acknowledged in the text, this thesis represents my own original work.

All versions of the submitted thesis (regardless of submission type) are identical.

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Abstract

One of the fundamental functions of language is the coordination of attention and/or knowledge between speech participants to facilitate the constructive exchange of information. The ways in which speakers attain intersubjective alignment in interaction have been examined by studies of engagement and information structure, both typological categories that are concerned with common ground management and how communicative goals influence the lexicogrammatical form of an utterance.

In Motu, an Oceanic language of New Guinea, two discourse markers, *na* and *be*, provide speakers with a grammatical strategy for negotiating the intersubjective relations between speech participants. *Na* and *be* optionally mark clausal nominal arguments and formally encode engagement meanings pertaining to (i) the speaker's assumptions about their addressee's mental access to a given referent or proposition, and (ii) the subjective anchoring of the content of the marked nominal referent within the epistemic perspective of either the speaker or addressee.

However, the use of these markers in wider discourse settings appear to have interpretive effects similar to those discussed for notions related to information structure, such as topicalisation and referent-tracking. Thus, the pragmatic inferences triggered by these engagement markers are utilised by speakers for common ground management beyond simply encoding the relative mental accessibility of a given entity. This thesis presents a preliminary analysis of the intersubjective meaning and function of Motu *na* and *be* based on an investigation of their distribution in conversational speech settings.

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Glossing conventions and abbreviations

Examples

The glossed Motu examples in this thesis will be presented as follows:

badakadia, um, peroveta anedia e abimu

badaka-dia peroveta ane-dia e abi=mu

older.generation-3PL peroveta song-3PL 3.R sing=PROG

‘the older people are singing peroveta songs’

(SY1-CONV001-20190825, 01:26-01:30)

The Motu examples consist of five lines. The first line represents the utterance in Motu orthography in italics. In the citation of conversational examples, the speaker’s initials precede the first line of the utterance. The second line shows the segmentation of the text line into morphemes. The third line provides the glosses following the conventions described below. The fourth line is a free translation to English. The orthographic and free translation line may contain punctuation marks and includes false starts (marked with a hyphen ‘-’) as well as *um*’s and *ah*’s which are not included in the morpheme parsing and glossing lines. The fifth line is the source reference of the example consisting of the collection that the primary Motu data comes from, the genre and date of the recording, as well as a timestamp for spontaneous speech or indication that the example is elicited data. See Appendix A for an overview of recordings with reference codes.

Abbreviations

Where possible, glosses follow the Leipzig glossing rules (Bickel et al., 2008). The following abbreviations and symbols are used in glosses in this study:

1	first person	MED	medial
2	second person	N-	non-
3	third person	NEG	negator

ADDR	addressee	OBJ	object
AGR	agreement	OBL	oblique
AL	alienable	P	previous (evidence)
AND	anditive	PERS	personal
AOR	aorist	PFV	perfective
APPL	applicative	PL	plural
ART	article	POSS	possessive
ASYM	asymmetric access	POSS.DOM	domestic possession
AUTH	authority	POT.OBS	potential observation
CAUS	causative	PROG	progressive
COM	comestible	PROX	proximal
COP	copula	PST	past
DEL	delimitative aktionsart	PTV	partitive
DEM	demonstrative	PURP	purposive
DEO	deontic	PV	perfective
DEP	dependent (verb)	Q	question particle
DES	desiderative	QUOT	quotative
DETR	de-transitive	R	realis
DIST	distal	RDP	reduplication
DL	dual	REL	relativiser
EMP	emphatic	RR	reflexive/reciprocal
ENGAG	engagement	SBJ	subject
ERG	ergative	SG	singular
EXCL	exclusive	SIM	simultaneous
HAB	habitual	SPKR	speaker
HUM	human	STAT	stative
IMP	imperative	SUBJ	subjective
INAN	inanimate	SW	switch
INCL	inclusive	SYM	symmetric access
INSTR	instrument	TR	transitive
IRR	irrealis	VEN	venitive
JUS	jussive	VIS	visual (evidence)
LOC	locative		

The following abbreviations are used as subscripts to constituents in the parse line:

- A transitive subject
- O transitive object
- S intransitive subject
- OBL oblique argument

Chapter 1

Introduction

One of the fundamental functions of language is the coordination of attention and/or knowledge between speech participants to facilitate the constructive exchange of information. Verhagen (2008, pp. 307-308) identifies two distinctive features of human communication that are “intimately tied up” with this linguistic function:

- (i) The mutual sharing of experiential-conceptual content between subjects of experience (intersubjectivity), and;
- (ii) The systematic use of a signal to make another individual pay attention to a specific phenomenon in the world (referentiality).

The effects of viewpoint and reference on the meaning and use of grammatical constructions has been examined within studies of engagement and information structure, two typological categories that are concerned with common ground management and how communicative goals influence the lexicogrammatical form of an utterance.

1.1 The intersubjective meaning of Motu *na* and *be*

The Oceanic language Motu, spoken in Papua New Guinea (PNG), has two discourse markers, *na* and *be*, that speakers use to manage intersubjective relations. These particles frequently occur in Motu speech and are exemplified in (1.1) where *na* and *be* mark the S argument of an intransitive verb in different clauses.

- (1.1) a. *moale na e varamu*
 moale **na** e vara=mu
 happy SPKR.ASYM 3.R happen=PROG
 ‘the celebration is happening’
 (SY1-CONV001-20190825, 02:20-02:22)
- b. *hahine be e duhiduhimu*
 hahine **be** e duhi~duhi=mu
 woman ADDR.(A)SYM 3.R RDP~peel=PROG
 ‘the woman is peeling’
 (SY1-VIDNR004-20191211, 14:40-14:45)

The use of *na* and *be* in the sentences represented in (1.1) is not grammatically obligatory and does not change the propositional content of either utterance. In examples which are presented without contextual information, such as (1.1), the difference in meaning between these two particles is not obvious at first glance. This thesis is an exploratory study of the intersubjective meaning of *na* and *be* in discourse contexts which relates to both engagement and information structural functions.

Engagement and information structure are generally regarded as distinct typological categories which deal with differential linguistic phenomena. Engagement is concerned with the morphological encoding of epistemic asymmetries between a speaker and their addressee(s) (Evans et al., 2018a, 2018b). In contrast, information structure deals with the structural arrangement of various types of information based on the mental or communicative state of interlocutors. However, from a broader perspective, the expression of both engagement and information structural meaning crucially involve the intersubjective, triadic relationship between speaker, addressee, and discourse object. A relationship between engagement and information structure has not yet been explicitly discussed even though, in interaction, the two grammatical domains perform similar functions in shaping and being shaped by the common ground between interlocutors.

This thesis analyses the function and distribution of the Motu *na* and *be* based on a small corpus of spontaneous language use which is supported by some elicited data.

This Motu language data is used to answer three key questions:

- (i) What semanto-pragmatic meanings are formally encoded by *na* and *be*?
- (ii) How do these meanings play out in interactional and discursive speech settings?
- (iii) What is the relationship between the meaning of these markers and their discourse functions?

The present study adds to the empirical base of the recently proposed grammatical category of engagement with evidence of a grammaticalised system in an Oceanic language. Additionally, I argue that the interactional meaning and pragmatic function of *na* and *be* in Motu discourse provide a formal link between the role of engagement and information structure in managing the distribution of information to facilitate intersubjective alignment between interlocutors.

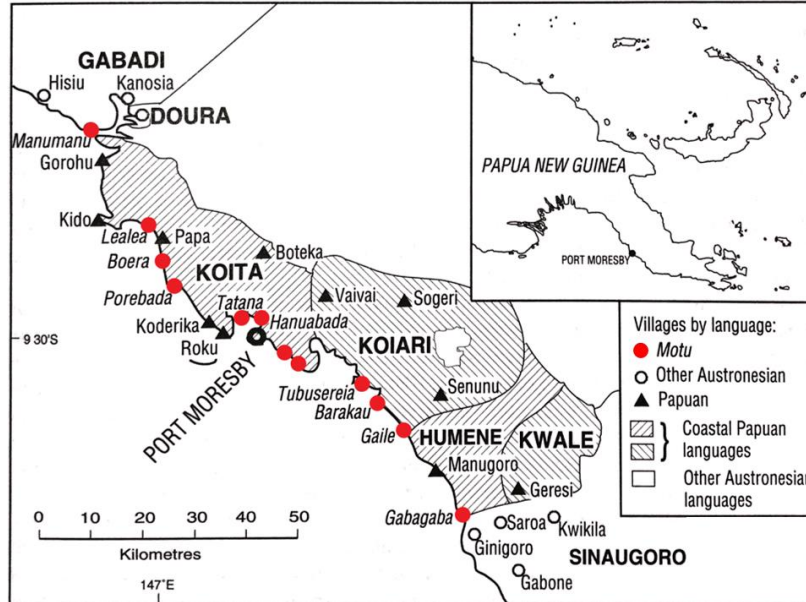
This chapter provides some background information on the Motu language and its speakers (§1.2) as well as the data and methods used in this study (§1.3), and an outline of the structure of the thesis (§1.4).

1.2 Language background

Motu (Glottocode: motu1246) is a Western Oceanic language spoken in Central Province, PNG. Motu-Koitabu people are the traditional landholders of what is now the capital city of Port Moresby (Goddard, 2011). Figure 1.1 shows a map of the coastal areas in which Motu speakers live. As can be seen, Motu is spoken discontinuously along the coast with several non-Austronesian or Papuan languages belonging to the Koiarian and Kwalean subgroups of the Trans New-Guinea language

family (Dutton, 1975, 2010), with neighbouring Oceanic languages further along the coast.

Figure 1.1. Motu language area (Lynch et al., 2002, p. 31)



Genealogically, Motu belongs to the West Central Papuan linkage of the Periphery Papuan Tip Cluster (Ross, 1988, p. 192). There are two dialects – Eastern and Western Motu – which are lexically and grammatically similar, and differ only on some phonological points. Historically, together with the contact variety based on Motu, Hiri or Police Motu, the language was a regional lingua franca in PNG in the twentieth century (see Dutton, 1985). Over time, Motu's position as an inter-group language was displaced by colonial contact languages, such as Tok Pisin and English. Given its historical importance in the linguistic landscape of PNG, it is rather surprising how little material is available on Motu. An early description by the missionary W.G. Lawes was published in 1885 and later republished in slightly revised form by Lister-Turner and Clark in 1931. Taylor (1970) wrote a transformational grammar on some aspects of the language, however many features of Motu language use still lack adequate description.

This is the case for *na* and *be* which are not discussed by Lawes (1885)¹, and classified as copulas by Lister-Turner and Clark (1931, p. 23) and Taylor (1970, p. 73) seemingly based solely on their distribution in non-verbal predicates, as in (1.2).

- (1.2) Motu (Taylor, 1970, p. 76)
- | | | | | |
|-------------------------|-----|-----------|-----|-----------|
| una | tau | na | lau | tama-gu |
| that | man | COP | I | father-my |
| 'that man is my father' | | | | |

However, non-verbal predicates do not require the use of *na* and *be* (see 1.3), and as shown in (1.1), *na* and *be* also mark nominal arguments in verbal predicates. Thus, rather than functioning as a copula connecting *una tau* 'that man' and *lau tamagu* 'my father' in (1.2), *na* is marking the nominal S argument *una tau* of the non-verbal predicate *lau tamagu*.

- (1.3) *ina ma tau ta*
- | | | | |
|-----------------------|-------|-----|-----|
| ina | ma | tau | ta |
| DEM.PROX.SG | other | man | one |
| 'this is another man' | | | |

(SY1-VIDNR003-20191013, 10:04-10:07)

Interestingly, in his comparative sketch of Police Motu and Pure Motu, Dutton (1985, p. 8) notes that, "in Motu, three particles, *ese*, *be*, and *na* are used in a complex way (that has not yet been fully described by linguists) to mark subjects or bring them into focus."

¹ Lawes (1885, p. 80) does include a *be* form in his vocabulary list, defined as "a connective particle, also used alone with the meaning of 'Why?' 'What's up?'" without any examples to illustrate its use in context. While it is the case that the discourse marker *be* does commonly in questions within our corpus (see §4.4.1), the label of 'connective particle' is rather ambiguous, as it may refer to (i) either the copula-like use noted by Lister-Turner & Clarke (1931) and Taylor (1970) or, (ii) to a reduced form of the clausal conjunction *bena*, which notably does not appear in Lawes' wordlist.

1.3 Data and methods

Most of the data presented in this study consists of naturalistic, spontaneous speech that was recorded and transcribed with four speakers of Motu (two male, two female) in Canberra between September 2019 and March 2020. This conversational corpus is supplemented by additional elicited data from a 2018 Field Methods class.

1.3.1 Corpus

The corpus on which this study is based consists of 105 minutes of video- and audio-recorded stimulus-based multi-party conversations and was collected with Huade Huang. As the main goal of the data collection was to address the research questions set out in §1.1 in relation to *na* and *be*, the use of ‘staged’ communicative settings (Himmelmann, 1998) allowed for more transparency in what contextual information was and was not shared between speech participants. The stimulus presented to consultants included interactive picture tasks such as the Jackal and Crow story task (Carroll et al., 2011), and videos of food preparation filmed elsewhere in the Pacific (e.g., Barth, 2010). Consultants were generally asked either to describe and/or construct a story based on stimuli that all speakers had access to, or consultants would be given different but corresponding stimuli (e.g. one speaker would have video stimuli and another would have a still from the video) and asked to match their stimuli sets. Some monologic texts, unprompted conversational language use, and elicited material were also collected and are included in this analysis².

Recordings were transcribed, translated, glossed and parsed in ELAN (<https://archive.mpi.nl/tla/elan>, Sloetjes & Wittenburg, 2008) and are being prepared for archiving in the Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC).

² See Appendix A for a full list of the recordings used in this study.

1.3.2 Research methodology

This study aims to provide a preliminary corpus-based account of the synchronic use and meaning of Motu discourse markers *na* and *be*. In viewing language from a functional-typological perspective as “a system adjusted for communication and information processing” (Kibrik, 2011, p. 17), the discussion of these markers is situated in the discourse contexts in which they occur. Thus, utterances exemplifying the use of *na* and *be* are presented in their interactional sequence which offers an insight into the communicative goals of the speaker and the interpretation of the addressee. This sequential analysis is additionally informed by monologic uses of *na* and *be*, elicited data, and discussions with speakers during transcription sessions.

1.4 Thesis structure

Following this introductory chapter, Chapter 2 provides the theoretical grounding for the description of *na* and *be*. In this chapter, the concepts of engagement and information structure are discussed and defined, and a typological context for the Motu data is outlined. Chapter 3 gives an overview of Motu grammar to assist the reader with the interpretation of the example sentences and position *na* and *be* within their grammatical context. The basic structure of noun phrases, verb phrases, and simple clauses is presented.

The engagement values of *na* and *be* are introduced in Chapter 4. This chapter describes the function of these markers in anchoring epistemic perspective and signalling the distribution of attention/knowledge between speech participants. Chapter 5 discusses the discourse uses of *na* and *be* that cannot be satisfactorily accounted for by the engagement analysis. Motu speakers appear to mobilise pragmatic extensions related to the attention coordination function of the engagement meanings to create interpretive effects related to information structure and referent-tracking. This thesis concludes in Chapter 6 with a review of its findings and a

discussion of the implications of this research for typological discussions of the role of engagement and information structure in the intersubjective process of common ground management.

Chapter 2

(Inter)subjectivity in grammar

The notion of intersubjectivity pertains to how attention towards and/or knowledge of an outside object is coordinated between humans through communication. Language can both reflect and manage the relation between the distinct, though partially shared, experiential-conceptual content held by different speech act participants in a given interactional setting. For Verhagen (2008, p. 307), intersubjectivity is built into the very structure of communication as linguistic signals are mutually shared conventions for solving coordination problems. One of the fundamental functions of language is the exchange of information which serves to create and negotiate a shared field of knowledge between speaker and addressee based on the subjective point of view of each interlocutor. The ways in which speech participants achieve intersubjective alignment in interaction has previously been individually examined in the study of (i) information structure (see van der Wal, 2015), and (ii) engagement (e.g. Evans et al., 2018a, 2018b), as distinct typological categories. However, the fact that both grammatical domains play a role in common ground management in interactive discourse contexts suggests that, at least for some languages, these two linguistic domains may have a formal relationship.

This chapter introduces and defines the relevant theoretical background and sketches a typological context for the analysis of Motu *na* ‘SPKR.ASYM’ and *be* ‘ADDR.(A)SYM’ in Chapters 4-5. It begins with a brief contextualisation of the key topics of engagement (§2.1) and information structure (§2.2.1-§2.2.2) and discusses some of the core challenges related to information structural research (§2.2.3). §2.3 presents a case

study examining the ways in which engagement and information structural lines of inquiry intersect. The discussion of demonstratives in Vera'a (based on Schnell, 2018) concretely illustrates the overlapping functions associated with these two grammatical domains.

2.1 Engagement

The notion of epistemic (a)symmetry is central to the analysis of intersubjective constructions, which require calculation by the speaker regarding the attention and psychological state of their addressee(s) and the configuration of epistemic access between speech act participants (SAPs) (Bergqvist, 2018). In their seminal papers establishing engagement as a typological category, Evans et al. (2018a, p. 113) state that engagement is concerned with “grammaticalised systems for monitoring and adjusting intersubjective settings”. §2.1.1 motivates and defines the notion of engagement and §2.1.2 provides a typological overview of some of the forms and functions associated with engagement constructions cross-linguistically.

2.1.1 Engagement as a grammatical domain

The intersubjective settings that are encoded and managed by grammatical systems of engagement pertain to the “relative accessibility of an entity or state of affairs to the speaker and addressee” (Evans et al., 2018a, p. 118). Within this definition, mental access is broadly understood in terms of attention (i.e. referents are perceptually or cognitively accessible and activated for SAPs) and/or knowledge (i.e. referents are known by one or more of the SAPs). The main functions of engagement markers are to:

- (i) Encode interpersonal epistemic relations to propositional content by signalling whether or not a speaker expects the content of an utterance to reflect a mutually shared field of knowledge with their addressee(s), and/or;
- (ii) Establish or maintain joint attention.

Evans et al. (2018a) discuss a canonical engagement system found in Andoke, an Amazonian language isolate, to exemplify the phenomenon. The contrast between the sentences in (2.1) comes from the differential distribution of knowledge encoded by the preverbal auxiliary bases *b-* and *kẽ-*. Whereas (2.1a) signals shared perceptual access between speaker and addressee, (2.1b) indicates non-shared access where the speaker is attending to the situation conveyed by the predicate and the addressee is not.

(2.1) Andoke, Andoque (Landaburu, 2007, as cited in Evans et al., 2018a, p. 114)

- a. *paá* *b-ɔ* *ɔ-po 'kẽ-i*
already +**SPKR+ADDR.ENGAG**-3SG.INAN 3SG.INAN-light-AGR
‘The day is dawning (as we can both witness)’
- b. *paá* *kẽ-ɔ* *ɔ-po 'kẽ-i*
already +**SPKR-ADDR.ENGAG**-3SG.INAN 3SG.INAN-light-AGR
‘The day is dawning (as I witness, but which you are not aware of)’

These two prefixes form part of a contrastive set with four distinct values that obligatorily occur in all verbal predicates. The Andoke system (see Table 2.1) expresses the maximal configurations of intersubjective distribution based on the logical possibilities afforded by a binary distinction between access/non-access between speaker and addressee.

Table 2.1. Andoke engagement paradigm (Landaburu, 2007, p. 30, as cited in Evans et al., 2018a, p. 117)

	SPEAKER-KNOWN	SPEAKER-UNKNOWN
ADDRESSEE-KNOWN	<i>b-</i>	<i>k-/d-</i>
ADDRESSEE-UNKNOWN	<i>kẽ-</i>	<i>bẽ-</i>

The distribution of speaker-addressee mental access represents one of the two semantic axes that Evans et al. (2018a, 2018b) propose are central for investigating the grammatical expression of engagement, with the other being scope. Evans et al. (2018a, p. 118) note that engagement markers may display various syntactic and semantic scope properties. Engagement meaning is encoded by various grammatical forms, including dedicated verbal inflections (2.2), clausal particles (2.3), and nominal modifiers (2.4). Moreover, there is a tendency for a marker's syntactic scope to reflect its semantic scope (Bergqvist and Knuchel, 2019, p. 651).

For example, the Yurakaré (Bolivian isolate) verbal enclitic =*laba* in (2.2) and the clause-final particle *ra* in Urama (Kiwaian) (2.3) morphosyntactically target the clause which corresponds with the propositional semantic range of the engagement value. Similar to the Andoke example (2.1), the subjective marker =*laba* occurs in the VP in Yurakaré (2.2), and encodes non-shared mental accessibility ('+SPKR-ADDR') between SAPs to the event of the predicate rather than a referential entity.

- (2.2) Yurakaré, isolate of central Bolivia (Gipper, 2015, p. 218)
iuypintalaba an chajmu [hehe ((laughs))]
 i-uypi-nta-ø=**laba** an chajmu
 PV-honey-DES-3SG.SBJ=**SUBJ** DEM dog
 'Maybe that dog wants to get honey'

Likewise, the Urama particle *ra* (2.3) has syntactic and semantic propositional scope and indicates that the speaker does not have knowledge regarding the content of the utterance but believes the addressee does ('-SPKR+ADDR').

(2.3) Urama, Kiwaian (Brown et al., 2016, p. 435)

na orioi emahibai ra
 this game try RA
 ‘You should try out this game’

Unlike (2.1)-(2.3), the Jahai (Aslian) demonstrative *tãʔ* in (2.4) has referential scope and signals speaker-anchored accessibility in relation to the nominal referent.

(2.4) Jahai, Aslian (Burenhult, 2018, p. 366)

ʔoʔ deʔ hayẽʔ tãʔ
 3SG to.make hut DEM
 ‘S/he built this hut’

Burenhult (2003, 2018) discusses how the speaker’s monitoring and management of their addressee’s attention and expectation conditions the use of accessibility-related demonstratives which form a subset of the demonstrative system in Jahai. In interactional contexts, speaker-anchored forms are used to introduce referents and once joint attention is established between speaker and addressee(s), the addressee-anchored accessible form *ton* is used, as in the sequence in (2.5).

(2.5) Jahai, Aslian (Burenhult, 2003, p. 372)

ʔɲkal blaw tãʔ, tãʔ, tãʔ
 mouthpiece blowpipe DEM DEM DEM
 ...
haʔih ton lɛh
 correct DEM EMP
 ‘This mouthpiece of a blowpipe. This one, this one... Yes, that one.’

Similarly, Knuchel (2019) describes a subset of demonstrative forms in Kogi (Chibchan) whose use is conditioned by visual or cognitive accessibility as well as a spatial contrast regarding the referential entity (see Table 2.2). When joint attention has not yet been established (‘- shared attention’), there are two distance values which are neutralised in ‘+ shared attention’ contexts.

Table 2.2. *Kogi (Columbia, Chibchan) exophoric demonstratives*
(Knuchel, 2019, p. 626)

	PROXIMAL	DISTAL
- SHARED ATTENTION	<i>hēhié, hě, halde</i>	<i>kwěhié, kwě</i>
+ SHARED ATTENTION	<i>twěhie, twě, twalde</i> ³	

Evans et al. (2018a, 2018b) highlight the intersubjective function of demonstratives to invoke shared knowledge between speaker and addressee and/or establish discourse importance in face-to-face interaction⁴ and link this function with more grammaticalised means for expressing engagement. For example, demonstratives in Abui (Timor-Alor-Pantar) have grammaticalised to become clause-final pragmatic markers with sentential scope that may be used to coerce engagement-type interpretations (Evans et al., 2018b, pp. 159-160; Kratochvíl, 2011).

2.1.2 Engagement constructions cross-linguistically

Whereas the morphological and obligatory form of engagement found in Andoke represents a canonical system, further research has demonstrated the diversity of forms associated with grammaticalised intersubjectivity in particular languages and the unique ways in which the function of engagement cross-cuts other grammatical domains. The engagement markers discussed within this section do not occur in symmetrical paradigmatic contrasts like the system in Andoke, and offer important insights into the multidimensional ways in which speakers encode attention and knowledge in language use.

³ Knuchel (2019, pp. 624) suggests that the choice of *twe*-demonstrative form is based on speaker preferences and all forms encode the same semantic meaning. The alternation between the different ‘-shared attention’ forms is not discussed.

⁴ This function is related to Himmelmann’s (1996, p. 230-234) ‘recognitional demonstrative use’.

Rumsey (2019) discusses the relationship between engagement, information source and definiteness in Ku Waru (Trans-New Guinea) to illustrate the complex interplay between linguistic and corporeal aspects of interaction that collectively facilitate joint attention and express engagement functions. One of the engagement strategies available to speakers of Ku Waru is shown in (2.6). This example comes at the end of an interactional sequence which represents a “classic case of joint attention” (p. 63) in which three SAPs are focused on the action of the child speaker, who is looking for a coin in his father’s pocket. The use of the definite marker *=yl* in (2.6c) signals the moment of transition from shared uncertainty (indicated by the occurrence of *ja* ‘maybe’ in preceding turns) to shared certainty. This verbal expression is tightly integrated with additional linguistic and metalinguistic elements of the interaction, including gaze direction, intonation, and dialogic syntax (see Du Bois, 2014; Rumsey, 2019, p. 64). This alternation of different forms depending on the shared/non-shared status of attention is similar to that discussed for demonstratives in Jahai and Kogi.

(2.6) Ku Waru, Trans-New Guinea (Rumsey, 2019, p. 63)

- a. Child: *ti pe-lym= jaaaa*
 one be/lie-HAB:3SG **maybe**
 ‘Maaaybe one is there’
- b. Uncle: *ti pe-lym= ja kan- ui*
 one be/lie-HAB:3SG **maybe** see/look JUS
 ‘Maybe one is there. Look.’
- c. Child: *ti pelym =iyl*
 one be/lie-HAB-3SG **DEF**
 ‘One is indeed there’

Whereas the Ku Waru optional definite marker can have either referential (when attached to nominals) or clausal scope (when attached to verbs, as shown in 2.6), the Ungarinyin (Worrorran) verbal definite subject marker *irra₂-* can only apply to a referential entity to signal symmetric epistemic authority in the immediate discourse

context (Spronck, 2020, p. 20). Spronck (2020, p. 21) suggests that *-irra*₂ does not specifically index whether the knowledge holder is the speaker or addressee but simply signals that the epistemic authority variable is filled, thus collapsing a key binary opposition in the canonical engagement paradigm.

Both Olsson (2019) and Mansfield (2019) describe an optional verbal marker of engagement with clausal scope in Coastal Marind (Trans-New Guinea) and Murrinhpatha (Southern Daly), respectively, both of which mark speaker-asymmetric ('+SPKR-ADDR') access. The main function of the absconditive⁵ verbal prefix series in Coastal Marind is to update the common ground by redirecting the attention or cognitive state of the addressee in the immediate here-and-now to an entity or state of affairs that they were not attending to before the occurrence of the absconditive-marked utterance. Olsson (2019) reports that the usage of the absconditive is restricted to present tense, only occurs in face-to-face interactional contexts, and is not used by speakers in subsequent clauses once joint attention has been established. Thus, the functions of the optional absconditive prefix seem principally to involve attentional parameters. Additionally, these verbal markers of engagement appear to be derived from pre-posed demonstratives that have been incorporated into the prefixal complex (pp. 139-140).

Mansfield (2019) demonstrates the interconnectedness between engagement, sociolinguistic stance and preferred modes of interaction in the use of verbal prefix *k-* 'AUTH' to mark epistemic authority in Murrinhpatha (see 2.7).

⁵ Olsson's (2019, p. 137) innovative label of 'absconditive' is based on the Latin participle *absconditus* 'hidden, concealed' and intended to reflect the idea that a verb marked with this prefix describes a state of affairs that is in some sense hidden from the addressee and that they can only gain access to by redirecting their attention.

(2.7) Murrinhpatha, Southern Daly (Mansfield, 2019, p. 26)

(a) *dem-wirntut*

pierce.RR.3SG.NFUT-get.up

‘S/he gets up’

(b) *kem-wirntut*

pierce.RR.3SG.AUTH-get.up

‘S/he gets up’ (*speaker authority*)

Mansfield suggests that to claim epistemic authority is a pragmatically marked act in Murrinhpatha, a language for which “consensual interaction and rights to knowledge have been well documented” (p. 25) and the use of *k-* intersects with socio-demographic considerations. Although attentional coordination does account for some occurrences of *k-*, there are other instances where the speaker’s claim to epistemic primacy is formulated on socially normative grounds rather than superior perceptual access. For example, results from a quantitative analysis demonstrate that senior Murrinhpatha speakers provided the vast majority of *k-* tokens in a video stimulus narrative (pp. 40-42). Mansfield thus relates the use of *k-* with the linguistic construction of a senior, authoritative sociolinguistic stance which is indexed by a recognised speech style, *murrinh yitthit* ‘heavy speech’, and associated with age, place and clan heritage. This study highlights the cultural contingency in ways of knowing and communicating that determine the kinds of engagement perspectives that can be routinised and systematised by speakers of particular languages.

Engagement values can combine with other qualities of epistemic modality and perspective that speakers attend to and encode in language use. Example (2.8) illustrates this interplay between engagement and another epistemic category, evidentiality, from Duna (San Roque, 2008). The ‘potential observation’ verbal inflection in Duna, *-noko~naoko*, encodes the speaker’s assumption of the addressee’s access via visual experience. In (2.8), *-naoko* is used to describe an event that the speaker knows has happened and thinks the addressee could have seen.

(2.8) Duna, Trans-New Guinea (San Roque, 2008, p. 358)

A: *no ke-ya-roko ko ngutia*

1SG see-DEP-SW.SIM 2SG go.PFV.VIS.P

‘I was looking and you went {I saw}’

B: *ẽ, no ngo-naoko*

yes 1SG go-POT.OBS

‘Yes, I went {it’s quite possible that you saw me}’

All of the studies discussed here take segments of natural discourse as the basis for their analyses. Such an approach demonstrates how considerations of interactional, situated language use (including preceding and subsequent turns, communicative repair, and the physical context of the speech act) may provide crucial evidence for investigating the expression of interpersonal meaning.

A grammaticalised engagement system has not yet been explicitly described for an Oceanic language, although the applicability of this typological category has been observed in several languages spoken in the New Guinea area (see Brown et al., 2016; Evans et al., 2018b, pp. 151-154; Olsson, 2019; Rumsey, 2019). There have been some studies of epistemic stance in non-Oceanic Austronesian languages, including Singaporean Malay (Kratochvíl et al., 2018), and Atayal (Yeh and Huang, 2013), following Du Bois’ (2007, p. 144) notion of stance alignment which “clearly relates” to engagement meaning (Evans et al., 2018a, p. 118). However, these studies are often couched within information structural considerations and investigate stance in a more broadly functional way by examining semiotic mechanisms of epistemic management rather than focusing necessarily on tightly integrated systems.

2.2 Information Structure

Like engagement and intersubjectivity, information structural research seeks to understand the relevant field of knowledge, or common ground, within which accessibility to informational content is distributed and the ways that it influences

linguistic expression. For van der Wal (2015, p. 431), the function of information structure in adjusting the packaging of a given proposition according to (the speaker's assumption of) the addressee's mental state is a prototypical instantiation of intersubjectivity.

Generally, two orthogonal dimensions of information structure are distinguished: information status (§2.2.1) and, information structural categories (§2.2.2). While the former is concerned with the relation between linguistic expression and interlocutors' mental representations of discourse referents (Gundel & Fretheim, 2004; Lambrecht 1994), the latter involves a partition of the propositional content of a sentence into pragmatic presupposition (topic) and assertion (focus) (Erteschik-Shir, 1997; Vallduví 1992).

The definitions associated with “informational primitives” (Vallduví, 1992, p. 61) such as topic, focus, and contrast are “notoriously variable” (Evans et al., 2018a, p. 117) and recent studies have challenged the cross-linguistic applicability of these supposedly universal notions for describing language-specific facts of information management. §2.2.3 summarises the theoretical and empirical issues relating to information structural research raised by Matić and Wedgwood (2013), Ozerov (2015, 2018), and Gómez-González (1997). These papers discuss how an approach that treats information structure categories as ‘comparative concepts’ (Haspelmath, 2010) rather than stable and unitary form-meaning correspondences allows for a more methodologically robust approach to the investigation of information packaging in particular languages.

2.2.1 Information status

The linguistic representation of discourse referents is typically described in terms of two key cognitive statuses: identifiability, which relates to knowledge, and activation, which deals with consciousness (Lambrecht, 1994, p. 105). Identifiability is concerned

with whether the speaker can assume that their addressee has an existing referential entry for a particular entity at the time of the utterance (Lambrecht, 1994, p. 77). Unidentifiable referents are those for which a representation exists exclusively in the mind of the speaker and has to be created in the mind of the addressee by the speaker's utterance.

Activation, on the other hand, distinguishes the status of an identifiable referent in the consciousness of interlocutors and is generally partitioned into three possible states: active, accessible, and inactive (Chafe, 1994, p. 73; Lambrecht, 1994, 109; Prince, 1981). Within this study, consciousness is understood in terms of Kibrik's (1999) "working memory" which is a small quickly updated storage of information and activation is interpreted as "gradual closeness to the centre of working memory" (p. 31). Thus, when a referent is active, it is assumed to be in the addressee's focus of consciousness at the time of the utterance. Accessible referents are in the addressee's periphery of consciousness (denotable from earlier discourse, the physical setting of the speech act, or inferable from an active referent) and not currently salient in the discourse. Inactive referents are assumed to be registered in the long-term memory of the addressee and identifiable, but not currently active in the discourse.

Kibrik (2011) also identifies attention as a crucial concept for studying reference in discourse as the speaker's focus of attention determines whether a referent is mentioned at all, and absence of attention results in absence of mention. It is only once a referent receives attention that it may be activated in working memory (Kibrik, 2011, p. 452).

A number of studies have proposed that the choice of referential expression in discourse reflects the activation status of the relevant referent (e.g., Ariel, 1988; Chafe, 1976, 1994; Givón, 1983; Gundel et al., 1993; Lambrecht, 1994). Based on the results of these studies and others, it is widely held that referents which are more

active at the moment of reference require less explicit coding material. Thus, less active referents (inactive or accessible) are usually introduced into discourse by more informative forms such as lexical noun phrases which are rich in descriptive content and allow for unique referential identification (Jasinskaja et al., 2015). On the other hand, reduced forms, like zero anaphora, pronouns, or demonstratives, are limited to referencing active referents (although they can also be referred to using more explicit referential devices).

In situating engagement within other areas of linguistic study, Evans et al. (2018a, p. 117) acknowledge that information status is “closer to many of the phenomena discussed” in relation to engagement. Both are concerned with the relation between a linguistic form and the knowledge and/or attention state of interlocutors regarding the expressed entity at a given point in the discourse. However, Evans et al. also note “the lack of precision with regard to whose mind is involved, or the nature of the intersubjective relationship between them,” in discussions of information status, which are fundamental to the notion of engagement.

2.2.2 Information structural categories

In the study of information packaging, properties and roles that an informational unit has in a proposition are primarily categorised into the relational dichotomy of topic-focus. These basic notions are typically described as sentence-level features directly associated with the interpretation of information and/or operate as instructions that guide the management of common ground (Ozerov, 2015, p. 387). Although definitions of topic and focus differ between approaches, these categories are often treated as absolute features of information with a stable and unitary form-meaning correspondence realised through language-specific constructions.

The concept of topic is broadly understood as informational anchoring, either constituting the referent that a proposition is about (Reinhart, 1981; Lambrecht, 1994)

or in a frame-setting sense where a topic is the “spatial, temporal, or individual framework within which the main predication holds” (Chafe, 1976, p. 50). Topic is also often defined in terms of givenness (Halliday, 1967) since topics pertain to the pragmatically presupposed portion of a sentence about which the speaker intends to increase the addressee’s knowledge or get the addressee to act with respect to (Gundel, 1988). Lambrecht’s (1994, pp. 165-171) topic accessibility hierarchy illustrates the interplay between the two dimensions of information structure in relation to topichood, as topics require a degree of pragmatic accessibility. Thus, inaccessible or discourse-new referents cannot be topics and topics are typically active or accessible referents that are currently relevant in the discourse.

Focus is often characterised in terms of newness and informational update of the common ground. Within this conceptualisation of focus, there is ongoing discussion about how it relates to the rest of the proposition. Lambrecht (1994, p. 213) delimits focus as the relational property that distinguishes assertion from presupposition, while Vallduví (1992) equates focus with the segment of the sentence where the new and/or unexpected information is asserted (p. 57). Contrastively, Rooth’s (1992) classification of focus is based on the context-dependent evocation of relevant alternatives which, in turn, “play a decisive role in common ground management and information update” (Zimmermann and Onea, 2011, p. 1658).

Diagnostic contexts are a common tool for identifying which linguistic strategies a language employs to express information structure categories. This overcomes the difficulty in directly observing and operationalising speakers’ intuitions about the informational relation between two discourse referents in particular contexts (Skopeteas, 2012). Tests for topichood depend on the theory-dependent properties of information assigned to topic constituents. If one adopts the relatively uncontroversial (though rather imprecise, see Polinsky 1999) definition of topic in terms of aboutness,

the standard test for determining the topic status of an expression is the *as-for* test in English (Lambrecht, 1994, p. 152) or the felicity of left-dislocated elements preceding the main clause of the proposition cross-linguistically (Erteschik-Shir, 2007, p. 19). In these diagnostic contexts, the sentential element that can occur in the left-periphery construction is in topic relation.

A primary diagnostic for focus is question-answer pairs, whereby a particular element is a focus constituent iff it is a felicitous response to a content question (Lambrecht, 1994, p. 329). Additional structures which have been suggested for determining language-specific devices associated with focus, include explicit contrast, exhaustive particles (e.g. *only*, *also*, and *even*), and elaboration (van der Wal, 2016).

2.2.3 Information structure as an interpretation-based category

Despite the lack of consensus regarding the relational properties of the “information structural primitives” (Vallduví, 1992, p. 61) topic and focus, typological studies of information structure are often based on the assumption that these categories are universal and directly encoded by language-specific devices. However, this has been challenged by Matic and Wedgwood (2013) who outline empirical issues raised by treating focus as a cross-linguistically relevant notion. In their paper, they argue that the terminological confusion surrounding focus reflects “inappropriate conceptions of categorisation and scientific generalisation” (p. 129) which have obscured the diversity of linguistic expressions associated with focus. Similarly, Gómez-González (1997) challenges the theoretical assumptions regarding a universal notion of topic by demonstrating the variance in how terms such as givenness and aboutness are applied in analyses of topic which “makes a unitary treatment of such structures hard to justify” (p. 137).

Gómez-González (1997), Maticć and Wedgwood (2013), Maticć (2014), and Ozerov (2015, 2018) discuss theoretical and typological studies within information structure research to illustrate that:

- (i) Diverse grammatical devices related to evidentiality, modality, and discourse management have been misidentified as topic or focus constructions due to an information structural bias towards formally determined categories, and;
- (ii) Languages partition information in idiosyncratic ways which do not easily correspond to the communicative devices and pragmatic effects that are often subsumed as characteristics of a single information structural category.

These authors discuss phenomena that have been identified as topic and focus constructions in previous descriptive work due to their occurrence in construed contexts designed to elicit information structural readings, such as question-answer pairs. However, their realisations in natural speech and longer texts indicate distinct underlying semantics. An example is Ozerov's (2018) discussion of the discursive usage of *wh*-cleft sentences in English (e.g., 2.9), based on the conversational analysis by Hopper and Thompson (2008). In the literature, *wh*-clefts have frequently been described as an information-structural device where the entity expressed in the cleft construction represents an accessible or highly contextually relevant topic (in italics in 2.9) that is separated from the nominal focal predicate (underlined) introduced by the copula 'be' (Hedberg & Fadden, 2007; Lambrecht, 2001).

(2.9) English (Hedberg & Fadden, 2007, p. 61)

What these warnings have achieved is political coverage for officials.

An information structural analysis may explain the local function of this construction such that the *wh*-cleft is understood along the lines of the presupposed, background, or

given information and the focal predicate as new, assertion or foreground. However, this analysis cannot be satisfactorily applied to its broader discourse usage. (2.10) represents natural conversational data in which the verb ‘do’ in the italicised *wh*-cleft introduces a complex set of occurrences that qualify as a single event. This set of utterances, which are expressed in an indeterminately long stretch of discourse, constitute the “focal predicate” of the *wh*-cleft constructions and cannot be accounted for within the proposition-level information structural category of focus (Ozerov, 2018, p. 86). Moreover, the *wh*-cleft in (2.10) appears to have a wider interactional function as Phil employs this rhetorical formula to hold the floor and spread his proposal out over multiple clauses to suggest that he has more arguments than he actually does (Hopper and Thompson, 2008, p. 107). Rather than encoding the relational properties of informational content, *wh*-clefts are “best understood as formulaic pieces deployed by speakers for the purpose of managing interactive discourse” by foreshadowing upcoming talk by the same speaker (Hopper and Thompson, 2008, p. 118).

- (2.10) English (Hopper & Thompson, 2008, p. 106)
- PHIL: (H) 2]... *And what we will do* (Hx),
is I think,
... *what we're gonna probably wanna do*,
or what I would like to do,
is I would like to take a day.
- BRAD: M[hm].
- PHIL: [(H)]=... %d=- during the week,
and we'll just take a whole day.
... That day.
An=d myself,
(H) uh,
If we have a uh=facilitator,
- BRAD: ... Mhm.
- PHIL: (H) = U=m,
that that person,
you and !Patricia and ... %!D=!Donna,
- BRAD: ... Mhm,
- PHIL: and maybe one other,
or two other board members would,
... actually spend that day and just say okay,
this is what went on at that retreat.

Examples, such as (2.10), which situate putative information packaging constructions within their discourse context demonstrate that the cross-linguistic comparability of phenomena commonly associated with ‘topic’ and ‘focus’ is due to the similarity of interpretive effect they evoke in limited speech contexts, rather than an indication that they are language-specific realisations of a single underlying entity. For the constructions discussed, an analysis based on a direct link between linguistic expression and information structural meaning would fail to address the full range of factors that determine their distribution and function. Instead, Matic and Wedgwood (2013) suggest a re-conceptualisation of information structure categories as “comparative concepts” (Haspelmath, 2010) for identifying the structural patterns

languages use to generate a variety of related pragmatic effects. Within this framework, informational properties such as frame-setting, newness, and attention-drawing are treated as communicatively heterogeneous devices that play specific roles in the interactional management of the common ground in particular languages (Ozerov, 2018).

2.3 Case study: Demonstratives

Demonstratives have been characterised as linguistic devices that coordinate the joint focus of attention between speech participants (Diessel, 2006, p. 481) and play an important role in construing reference and the perspective of speech act participants (Gipper, 2017, p. 126). Demonstrative forms often serve to orient interlocutors, both spatially (exophoric) and text-internally (endophoric) during discourse production and comprehension. In §2.1.1, the intersubjective function of demonstratives which encode engagement meaning was discussed. Additionally, several studies based on interactional and spontaneous demonstrative usage (including Cutfield, 2012; Enfield, 2003; Gipper, 2017) have shown that the deictic parameters signalled by the conventionally encoded semantic value of demonstrative forms can map onto additional aspects of meaning in certain contexts to create pragmatic effects related to discourse management on a more global level.

As demonstratives play a major role in both engagement and information structural fields of study, they may serve as a starting point for looking at the link between the two typological categories. In order to investigate how a relationship between engagement meaning and information packaging plays out in the grammar of a particular language, an engagement analysis is applied to Schnell's (2018) study of attention focus and information structural effects in Vera'a demonstratives. Like a number of demonstrative systems in Oceanic languages (see Hooper, 2010; Lynch et al., 2002; Margetts, 2018; Senft, 2004), Vera'a marks a three-way contrast between

speaker-oriented, addressee-oriented and distal demonstrative forms (p. 86). Schnell illustrates that the usage of these forms is based on considerations of whether the speaker or addressee can be regarded as attending to the referent at the time of the speech act (expressed using speaker- or addressee-oriented forms) or whether the referent is outside of the addressee's attentional sphere and is not expected to become the focus of attention (marked by the distal demonstrative). In (2.11), the first two demonstratives are speaker-oriented forms and indicate that the speaker is drawing their interlocutor's attention to something the addressee is not attending to at the time of the utterance. However, once joint attention has been established, the speaker then uses the addressee-oriented form in the following clause, which further elaborates on the referent.

- (2.11) Vera'a, Oceanic (Schnell, 2018, p. 93, clause marking and emphasis my own)
- ruwa =n nō-k [ēn bē agēnē]*
HUM:DL =ART POSS.DOM-1SG ART water **DEM.SPKR.A**
- [n= bē nō-k anē] ga [mana nē]*
ART= water POSS.DOM-1SG **DEM.SPKR.A** STAT power **DEM.ADDR**
- 'Hey you two, I have some water here. This water of mine has magic powers.'

Moreover, Schnell discusses the interpretive effects associated with the discourse-deictic function of addressee-oriented and distal demonstrative forms in Vera'a to show that their use is connected to considerations of information packaging. In (2.12), the distal form marking the first mention of *e ruwa malmala* 'the girls' functions to (re-)activate the referents in the hearer's mind whereas the addressee-oriented form in the second clause could be analysed as having a topicalising function, signalling that the clause is about the two girls, who are now given referents within the discourse.

- (2.12) Vera'a (Schnell, 2018, p. 108, clause marking and emphasis my own)
- | | | | | | | | | |
|-----------|-------------|----------------|-------------|----------------|----------|------------|------------|-----------|
| <i>ne</i> | <i>'ēn</i> | <i>[e</i> | <i>ruwa</i> | <i>mālmāla</i> | <i>ē</i> | <i>=s]</i> | <i>sag</i> | <i>'i</i> |
| AOR:3SG | see | PERS | HUM:DL | girl | DEM.DIST | SIM | sit | DEL |
| <i>[e</i> | <i>ruwa</i> | <i>mālmāla</i> | <i>anē]</i> | <i>so</i> | | | | |
| PERS | HUM:DL | girl | DEM.ADDR.A | QUOT | | | | |
- '...and then he spotted those two girls sitting there, and the two girls said...'

However, Schnell stresses that the addressee-oriented form *does not* have a topicalising function, as DEM.ADDR also marks left-dislocated pronominal referents that are clearly in a 'focus' relation⁶. Rather, following Matic' and Wedgwood (2013) and Ozerov (2014, 2015), Schnell suggests that the addressee-oriented meaning signalling 'keep attention focused on this' encoded by addressee-oriented demonstratives brings about an *effect* that is compatible with both traditional conceptions of 'topic' and 'focus' in different speech contexts and syntactic environments by holding a proposition as the focus of attention.

Schnell's intersubjective account of demonstratives in Vera'a strongly resembles the engagement-based analysis described for interlocutor-oriented demonstratives in Turkish (Özyürek, 1998), Kogi, and Jahai (see §2.1), and the Vera'a data easily map onto engagement values (Table 2.3). However, unlike Jahai and Kogi demonstratives, where there are separate forms used for endophoric reference, the forms are shared in Vera'a. Thus, Schnell (p. 94) describes the "omnipresent potential ambiguity between exophoric-situational and endophoric-tracking use" which makes it difficult to apply a strict delineation between the information packaging and engagement-like functions described here for Vera'a.

⁶ It is important to note that the topic- and focus-related pragmatic effects associated with the use of demonstratives in particular speech contexts in Vera'a exist within a much broader system of information packaging which includes other structural properties, such as the emphatic-assertive marker *sa* and left-dislocation (Schnell, 2014).

Table 2.3. Engagement values of Vera’a demonstratives based on Schnell (2018)

	SPEAKER-KNOWN	SPEAKER-UNKNOWN
ADDRESSEE-KNOWN	(a)nē DEM.ADDR(.A) ⁷	
ADDRESSEE-UNKNOWN	(a)gēn(ē) DEM.SPKR(.A)	ē DEM.DIST

2.4 Conclusion

While engagement is primarily concerned with the morphological encoding of relative accessibility between SAPs (§2.1), and information structure generally deals with the mental representation (§2.2.1) and relational properties (§2.2.2) of information, both have similar communicative functions. The two typological domains relate to the cognitive and attentional states of interlocutors and how speakers organise propositional content to manage and achieve intersubjective coordination in discourse. Evans et al. (2018b) acknowledge the difficulty in defining engagement as a discrete morphological category and the examples discussed in §2.1.2 illustrate the cross-cutting nature of engagement markers in particular languages. The Vera’a case study (§2.3) demonstrates that markers of engagement can and do play a role in expressing the interpretive effects related to putative topic and focus categories, and thus provides a formal link between engagement and information structure. However, such an analysis rests on a conceptualisation of information structural categories as arbitrary clusters of heterogeneous communicative devices with divergent language-specific

⁷ Following Schnell (2018, p. 87), “forms of DEM.SPKR and DEM.ADDR alter between a ‘plain’ form and a form prefixed by *a*-. The latter is quite likely to represent a crystallised combination of the specific locative article *a* and a demonstrative. The formal distinction is relevant insofar as they correlate with constraints on syntactic distribution: for instance only the prefixed forms of basic demonstratives can occur adnominally. When a form is prefixed, this is indicated by .A in the gloss, for instance DEM.SPKR.A for the prefixed speaker-oriented form.”

sources that induce similar cross-linguistically comparable pragmatic interpretations (§2.2.3).

Chapter 3

Typological overview of Motu

Before turning to the morphosyntactic constructions at the core of the present study, this chapter aims to provide the reader with the necessary grammatical background to interpret the Motu examples and situate the engagement and information packaging constructions discussed in Chapters 4-5 within the broader system of Motu grammar. The features discussed in this grammar sketch are modelled on those described in Lynch et al. (2002) and the sketches therein, which also serve as the typological context for this grammatical overview of Motu. The structural patterns discussed in this chapter are based on strong tendencies observed in our corpus in pragmatically unmarked contexts. The ways in which these grammatical features may vary depending on discourse-pragmatic considerations is subject to further investigation.

Historically, Motu, like other Papuan Tip languages, has been spoken in a contact area with non-Austronesian languages. Thus, although Motu exhibits some morphosyntactic features that are typical of an Oceanic language (see Lynch et al., 2002, pp. 34-53), there are other grammatical structures, such as AOV word order and postpositions, which differ from those found in Oceanic languages spoken outside the New Guinea area, and that are taken to reflect contact-induced change.

The language as presented here deviates at some points from previous descriptions by Lawes (1885), Lister-Turner & Clark (1931), and Taylor (1970).

3.1 Phonology

The phoneme inventory of Motu comprises five vowels, with a contrastive length distinction (Table 3.1), and nineteen consonants (Table 3.2). Syllables are exclusively open and have the structure (C)V(glide).

Table 3.1. Motu vowel inventory

	Front	Central	Back
Close	i		u
Close-mid	e		o
Near-open		ɐ	

Table 3.2. Distinctive consonants in Motu and their orthographic representation

		Bilabial	Labiodental	Alveolar	Retroflex	Velar	Glottal
Stop	voiced	b 		d <d>		g <g>	
	aspirated	p ^h <p>		t ^h <t>		k ^h <k>	
	labialised					g ^w <gw> k ^w <kw>	
Nasal		m <m>		n <n>			
Fricative			v <v>	s <s>		ɣ <g>	h <h>
Lateral				l <l>			
Approximant					ɻ <r>		

3.2 The noun phrase

Nouns form an open class in Motu and may function as the head of a NP (§3.2.7), as subject and complement in a non-verbal predicate (§3.4.1), as a core or peripheral argument of a verbal predicate (§3.4.2-§3.4.3), and as a modifier in a multi-noun NP (§3.2.6). Nouns can be distributionally distinguished from verbs as they do not take preverbal subject markers or bound TAM marking. In addition, nouns cannot take an adverbial modifier of degree, thus distinguishing them from adjectives. There is no nominal case and nouns in Motu cannot be classified as personal, local and common, as is found in many Oceanic languages.

3.2.1 Pronominal system

As can be seen in Table 3.3, the pronominal system in Motu involves a three-way person contrast between first, second and third person with no gender distinctions, and includes a clusivity distinction in first person plural forms⁸.

Table 3.3. Motu pronoun paradigm

	SG	PL
<i>Independent</i>		
1.INCL	lau	ita
1.EXCL		ai
2	oi	umui
3	ia	idia
<i>Bound ‘possessor’/object marker</i>		
1.INCL	-gu	-da
1.EXCL		-mai
2	-mu	-mui
3.POSS	-na	-dia
3.OBJ	-a	

As in other Papuan Tip languages, the forms of the nominal ‘possessor’ and verbal object suffixes in Motu are syncretic, although 3SG forms differ. The ‘possessor’ suffixes also occur on post-nominal modifiers and pre-modified nouns, and their distribution in nominal modification constructions are discussed further in §3.2.5 and §3.2.6.

⁸ Despite earlier sources, namely Lawes (1896) and its subsequent revised editions (Lister-Turner and Clark 1931), reporting a distinct dual series, these forms are clearly synchronically related to the numeral *rua* ‘two’, suffixed by the partitive *-osi* and are generally not employed to refer to dual participants in the naturalistic speech of our Motu consultants. Therefore, only a binary number distinction between singular and plural is presented here.

3.2.2 Nouns

Most nouns consist of a single nominal root morpheme and there is no evidence of morphological derivation of nouns from verbs, with formally identical roots functioning in both verbal (3.1) and nominal (3.2) contexts:

(3.1) *lau ia na badu heniamu*

lau ia **na** **badu** **heni-a=mu**
 1SG 3SG 1SG.R angry APPL-3SG=PROG
 ‘I am angry with him’

(MEU1-Transitivity-T4_20180705_019)

(3.2) *lau mai egu badu ia enai*

lau mai **e-gu** **badu** ia e-na=ai
 1SG with AL.POSS.NCOM-1SG anger 3SG AL.POSS.NCOM-3SG=LOC
 ‘I am angry with him’ [lit. ‘My anger is at him’]

(MEU1-Transitivity-T4_20180705_020)

3.2.3 Articles and demonstratives

As in other Papuan Tip languages (see Lynch et al., 2002, p. 104), Motu has not retained the Proto-Oceanic common articles and there are no articles in the language. Specificity can be expressed using demonstratives, which exhibit a three-way distance contrast based on the orientation of the speaker (see Table 3.4).

Table 3.4. Demonstratives in Motu

	SG	PL
PROXIMAL	ina	ini
MEDIAL	ena	ene
DISTAL	una	unu

Demonstratives can both head a NP and modify a lexical noun, in which case they precede the noun:

(3.3) *ina sisia na paroparo e itaiava*

ina sisia na paroparo e ita-i-a=va
 DEM.PROX.SG dog SPKR.ASYM frog 3.R see-TR-3SG=PST/HAB
 ‘this dog saw the frog’

(SY1-STORY002-20190901_1, 01:40-01:45)

A reduced form of *tamona* ‘one’, *ta*, can be used to mark a singular participant as indefinite and, like numerals, it follows the head noun:

(3.4) *ela hanua hahinena ta eitaia*

e la [hanua hahine-na **ta**] e ita-i-a
 3.R go village woman-3SG one 3.R see-TR-3SG
 ‘he went and saw a woman of the village’

(MEU1-C_20180625-01_007)

3.2.4 Numerals and number marking

Nouns in Motu are mostly unmarked for number, which is generally indicated by modifying elements in the noun phrase. However, four nouns referring to human referents have partially reduplicated plural forms:

Table 3.5. Nouns that carry morphological number marking

	SG	PL
‘woman’	<i>hahine</i>	<i>ha:hine</i>
‘man’	<i>tau</i>	<i>ta~tau</i>
‘girl’	<i>kekeni</i>	<i>ke:keni</i>
‘boy’	<i>mero</i>	<i>me~mero</i>

Motu has a base-five counting system and cardinal numbers follow the noun they modify. When counting human referents, partial reduplication of the first consonant of the numeral + /a/ occurs, as in (3.5). Also note the use of the partitive suffix *-osi* on the numeral.

- (3.5) *idia tatoiosi mo e kara daika be kwalimumu*
 idia **ta~toi-osi** mo e kara daika be kwalimu=mu
 3PL RDP~three-PTV only 3.R do who 3.IRR win=PROG
 ‘only three of them are competing to see who is going to win’
 (SY1-VIDNR001-20190922, 02:53-02:56)

Quantifiers include *haida* ‘some’, *momo* ‘many/much’, and *ibou* ‘all/every’ and all three follow the noun they quantify. *Haida* and *momo* are morphologically invariant for the number of the modified noun, whereas *ibou* inflects for the number of the quantified noun using the object/‘possessor’ suffixes (as shown in Table 3.3) and is always followed by the locative clitic:

- (3.6) *mahuta gabuna ibounai*
 mahuta gabu-na **ibou-na=ai**
 sleep place-3SG all-3SG=LOC
 ‘all of the bedroom/the entire bedroom’
 (SY1-STORY002-20190901_2, 01:41-01:45)

3.2.5 Possession

Like most Oceanic languages, there is a structural distinction between directly and indirectly possessed nouns in Motu. In direct possessive constructions, an object/‘possessor’ suffix (see Table 3.3) is attached directly to the nominal stem denoting the possessum, as in (3.7). Nouns that are directly possessed in Motu are linked to a semantic class of inalienable possession and associated with terms relating to kinship, body parts, part-whole relations, and spatial relations.

- (3.7) a. *lau sinagu tamagu dano unuseniai*
 (lau) **sina-gu** **tama-gu** dano unuseni=ai
 1SG mother-1SG father-1SG also there=LOC
 ‘my mother and father were also there’
 (MEU1-T3_20180704-03 - Erue's life story 004)

- b. *mero darana e doko*
 (mero) dara-na e doko
 boy strength-3SG3.R stop
 ‘the boy lost his strength’ [lit. ‘the boy’s strength stopped’]
 (MEU1-Adjective_T1_20180629_057)

All other nouns are indirectly possessed. With indirect possession, a pronominal suffix which agrees in person and number with the possessor is attached to a possessive classifier which directly precedes the possessed noun and marks whether the possessum is comestible (3.8a) or not (3.8b). In both (3.7) and (3.8), the overt possessor NP which precedes the possessum is optional in both direct and indirect possessive constructions.

- (3.8) a. *umui amui rabia o nadua*
 (umui) a-mui rabia o nadu-a
 2PL AL.POSS.COM-2PL sago 2.R cook-3SG
 ‘you (pl.) cooked your sago’
 (MEU1-Past_Future_Cooking_13)
- b. *meromero bona meromero ena sisia ida ela*
 mero~mero bona (mero~mero) e-na sisia ida e la
 RDP~boy and RDP~boy AL.POSS.NCOM-3SG dog with 3.R go
 ‘the boy went with his dog’
 (SY1-STORY002-20190901_2, 00:59-01:02)

3.2.6 Adjectives and nominal modifiers

The pronominal suffixes are also attached to adnominal property words in modification constructions, indicating that these suffixes encode a relationship of close association which is not necessarily limited to one nominal argument “having”, “owning”, or “controlling” another argument. In such contexts, the semantic relationship represented by these constructions could be better characterised as relational rather than possessive.

Motu has two classes of words that function as adnominal property words – an adjective class proper which does not share the predicate syntax of nouns or verbs, and adjectival nouns. The adjective class is closed and expresses ‘core’ semantic attributes of dimension, value, colour and age (Dixon, 2004, p. 3). In predicative constructions, these adjectives follow the head noun which can be marked by one of the particles *na* or *be*⁹ (3.9a) and in attributive constructions, they follow the head noun and take the pronominal suffix which agrees with the number of the head noun (3.9b).

(3.9) a. *tau na lata herea*

tau na lata herea
man SPKR.ASYM tall very
‘(the) man is very tall’

(MEU1-Adjective_T1_20180629_009)

b. *tatau latadia*

ta~tau lata-dia
RDP~man tall-3PL
‘(the) tall men’

(MEU1-Adjective_T1_20180629_003)

Additionally, words belonging to the adjective class proper can reduplicate partially to mark plurality and fully for augmentative meaning. Adjectival nouns do not reduplicate. Adjectival nouns also follow the head noun in predicative modification constructions – however, unlike adjectives, they are linked to the head noun by the adposition *mai* ‘with’ and take the pronominal suffix (3.10a). In attributive constructions, adjectival nouns occur before the head noun and the pronominal suffix occurs on the head noun rather than the modifier (3.10b)¹⁰.

⁹ See Chapters 4-5 for a discussion of the function and use of these markers.

¹⁰ There is a suffix *-ka* which can be attached to some adjectival nouns and may be related to Proto-Oceanic **-ka* which “seems to have derived adjectival nouns from other roots, usually nouns” (Lynch et al., 2002, p. 75). In Motu, *-ka* can be attached to some adjectival nouns and bare nouns, in which case their morphosyntax reflects that of the adjective class. However *-ka* cannot be attached to all adjectival nouns and its occurrence is relatively rare in our corpus – its exact function and distribution require further investigation.

- (3.10) a. *tano mai mirona*
 tano mai miro-na
 ground with dirty-3SG
 ‘the ground is dirty’

(MEU1-modifier_20180713_038)

- b. *miro maragina*
 miro maragi-na
 dirty child-3SG
 ‘the/a dirty child’

(MEU1-reflexive_and_passive_20180705_009)

The distribution of (3.10b) mirrors the structure found when a lexical noun modifies the head noun, as in (3.11).

- (3.11) a. *pea auna ai e dae*
pea au-na =ai e dae
 pear tree-3SG LOC 3.R climb
 ‘he climbed a pear tree’

(MEU1-T1_20180706_ext1H4n-03 002)

3.2.7 Basic noun phrase structure

The elements of a basic NP occur in the following order in pragmatically unmarked utterances:

(DEMONSTRATIVE) (POSSESSOR) (PRE-MODIFIER) **NOUN** (POST-MODIFIER)

(NUMERAL) (RELATIVE CLAUSE)

Minimally, an NP consists of just a bare noun; all modifiers are optional. The head of a NP is generally a noun but can also be an independent pronoun or demonstrative.

Only NPs that have a lexical noun as head have the full range of modifiers available to them. A NP headed by a free pronoun can be modified by a partitive numeral, as in (3.3), and can take a relative clause (see §3.2.8), while a NP headed by a demonstrative does not take any modifiers.

3.2.8 Relative clauses

Relative clauses are dependent clauses which function as a modifier to a NP. Such constructions have an argument that is co-referential between the main clause and the dependent clause. In Motu, the relative clause can either be internally-headed or directly follow the external NP being modified. The right-edge of the relative clause is marked by the relativiser *na* (which is distinct from the discourse particle *na* glossed as ‘SPKR.ASYM’, and described in Chapters 4-5). This marker appears to be related to the relational use of the third person singular suffix *-na* (see §3.2.6).

When the head nominal (i.e., the overt nominal expression of the common argument) occurs within the relative clause (see 3.12a), the NP being modified follows the verb phrase, which is a divergence from the default verb-final word order¹¹. Where the head nominal occurs outside of the dependent clause (see 3.12b), the relative clause immediately follows it and a semantically empty anaphoric element, *gau* ‘thing’, which agrees in number with the external head nominal, occurs in the same position as the head nominal in internally-headed relative clauses.

¹¹ SV for intransitive clauses and AOV for transitive clauses (see §3.4.2).

- (3.12) a. *eha utu **audia** na e laohai hahine ta*
 [e=ha utu au-dia¹² na] e laohai hahine ta
 3.R=HA cut tree-3PL REL 3.R carry woman one
 ‘he carried the sticks that he had cut to the woman’
 (SY1-VIDNR003-20191013, 00:58-01:05)
- b. ***niu** e kohi gaudia na lalodia e kokimu*
 niu [e kohi gau-dia na] lalo-dia e koki=mu
 coconut 3.R break thing-3PL REL in-3PL 3.R scrape=PROG
 ‘they are scraping out the insides of the coconuts that they had broken’
 (SY1-VIDNR001-20190922, 01:24-01:26)

3.3 The verb phrase

Verbs are typically the head of a predicate and are the only word class that occur with preverbal subject markers, TAM marking, and object suffixes (§3.3.2). Like nouns, verbs form an open word class in Motu. There do not appear to be verbs with a root valency of more than two and there are very few ditransitive verbs. Oblique constituents are not indexed on the verb. Verbs can be subcategorised into stative verbs, active intransitive verbs, transitive verbs, and directional verbs based on the verbal morphology they take (§3.3.1) and their behaviour in serial verb constructions (SVCs) (§3.3.3). There is no copula, existential verb or passive construction in Motu.

3.3.1 Verbal derivation and inflection

As discussed in §3.2.2, there is often no overt morphological marking to derive nouns from verbs or vice versa. Roots in Motu, as in other Oceanic languages, appear to be multifunctional¹³, and nominal, verbal and adjectival roots can directly take verbal morphology (summarised in Table 3.6) when functioning as verbal predicates.

¹² Although nouns in main clauses are not marked for number, it seems to be the case that noun which occur in relative clauses can and do take number marking. Thus, *au* ‘tree/stick’ is marked as plural by the third person plural possessor suffix *-dia*.

¹³ Here, I follow the terminology established by van Lier (2017, p. 243) wherein multifunctional roots are members in language-specific lexical classes and can fulfil more than

Table 3.6. Verbal morphology

Form	Meaning
<i>ha-</i>	Causative
<i>he-</i>	Detransitiviser; reciprocal/reflexive prefix
<i>-lai</i>	Applicative
<i>-heni</i>	Applicative
<i>-i</i>	Transitive marker ¹⁴
<i>Initial CV-reduplication</i>	Plurality of an intransitive subject on stative verbs

Transitive verbs can be derived from monovalent roots with the causative prefix *ha-*.

In the resultant causative construction, the subject of the intransitive verb becomes the object of the transitive verb and the introduced participant is the A argument, as in (3.13).¹⁵

(3.13) *mereki e hamorua*

mereki e ha-moru-a
plate 3.R CAUS-fall-3SG
'she dropped the plate'

(SY1-PICMAT001-20191013, 08:14-08:17)

There are two additional valency-increasing morphological devices which introduce an applied object argument with an intransitive verb. The applicative suffixes, *-heni* and *-lai*, introduce participants with different thematic roles¹⁶. Whereas transitive

one syntactic function without derivation. These are distinct from precategorial roots which are unspecified for membership in a lexical class.

¹⁴ The transitive marker *-i* only appears in environment /a/_/a/, i.e. most typically following verbs ending in /a/ and before the 3SG object suffix *-a*, as can be seen in *ita-i-a* in (3.3) and (3.4).

¹⁵ The prefix *ha-* can also be attached to transitive roots for non-causative meaning.

¹⁶ *Heni* also has a full-verb counterpart meaning 'give' which is formally identical to the applicative suffix and can function by itself as a predicate. Orthographically, speakers generally write *heni* as a separate word from the verb. Additionally, in some reciprocal constructions where *heni* occurs following the head verb, the reciprocal/detransitive marker is attached to *heni* as well as to the verb (e.g. *idia e hepata hehenimu* 'they hit each other'). Hence, the exact wordhood status of *heni* in its applicative function cannot be easily established and requires further investigation. However, here I simply follow the analysis of Lister-Turner and Clark (1931, p. 12) and treat applicative *heni* as a suffix as it is the only previous analysis available. Both lexical and applicative uses appear to be retained from POC

verbs derived with *-heni* promote a peripheral goal argument to direct object (3.14a), applicative constructions marked with *-lai* indicate that the action of the predicate is about (3.14b) or occurring with (3.14c) the introduced object.

- (3.14) a. *apolo na hari mero iharuana e taho henia*
 apolo na hari mero iharua-na e taho-heni-a
 apple SPKR.ASYM HARI boy second-3SG 3.R throw-APPL-3SG.OBJ
 ‘he threw the apple to the second boy’
 (SY1-PICMAT001-20191013, 09:18-09:21)
- b. *ia na oi e herevalaimumu*
 ia na oi e hereva-lai-mu=mu
 3SG SPKR.ASYM 2SG 3.R talk-APPL-2SG=PROG
 ‘he is talking of/about you’
 (MEU1-Transitivity-T4_20180711-005)
- c. *una sisia na una ubama e gadaralaimu*
 una sisia na una ubama na
 DEM.DIST.SG dog SPKR.ASYM DEM.DIST.SG bee SPKR.ASYM
 e gadara-lai=va
 3.R play-APPL-PROG
 ‘the dog played with the bee’
 (SY1-STORY002-20190901_1, 05:49-05:52)

Bivalent roots can become intransitive using the verbal prefix *he-*, as with *koki* ‘remove’ in (3.15a) which is a bivalent verb that adopts the meaning ‘to come off’ when de-transitivised. As illustrated in (3.15b), this prefix can also be used to encode reflexive and reciprocal functions which indicate the co-referentiality of the O and A participant(s) and form an intransitive verb which takes a single syntactic argument.

**pani* which functioned as both the verb ‘to give’ and as the benefactive verbal preposition (Lynch et al., 2002, p. 88). This is not the case for *-lai*, which is clearly a suffix as it exclusively appears following lexical verbs, seems to form a single phonological word with the verb and speakers generally write it together with the verb (see example 3.15a).

- (3.15) a. *galasi nada e hekokioho*
galasi na da e he-koki oho
glass SPKR.ASYM VADA 3.R DETR-remove away
‘the glass came off [from the dog’s head]’
(SY1-STORY002-20190901_1, 04:43-04:44)
- b. *tau (sibona) e hepidi*
tau sibo-na e he-pidi
man self-3SG 3.R DETR-shoot
‘the man shot himself’
(MEU1-C_20180710_Reflexives_Reciprocals_014)

In addition to the morphology illustrated in Table 3.6, transitive verbs generally carry pronominal object suffixes which index the person and number of the direct object (see Table 3.3).

3.3.2 Basic verb phrase structure

The positional slots of the Motu verb phrase are as follows:

SUBJECT MARKER	VERB	(VERB)	(MODIFIER)	(=TENSE/ASPECT)
(Table 3.7)		(§3.3.3)		= <i>mu</i> PROG
				= <i>va</i> PST/HAB

The head element of the VP is the verb root, including any derivational morphology (see Table 3.6). The head is obligatorily preceded by a set of pronominal portmanteau markers which encode mood categories as well as indexing the person and number of the subject, regardless of whether or not there is an overt subject noun phrase in the clause (see Table 3.7). However, this is not the case for stative verbs, in which the preverbal subject marker appears to be optional. In (3.16), the stative verb *helai* ‘to sit’ occurs with (3.16b) and without (3.16a) the preverbal subject marker.

(3.16) a. *sibona seai helai*

sibona sea=ai **helai**

self chair=LOC sit

‘he is sitting on a chair by himself’

(SY1-PICMAT001-20191013, 10:39-10:41)

b. *au riginai e helai kau*

au rigi-na=ai **e helai** kau

tree branch-3SG=LOC 3.R sit on

‘he is sitting on a branch’

(SY1-STORY001-20190901_2, 04:02-04:05)

Table 3.7. *Motu* preverbal subject markers

	SG	PL
<i>Realis</i> ¹⁷		
1.INCL	na	ta
1.EXCL		a
2	o	o
3	e	e
<i>Irrealis</i> ¹⁸		
1.INCL	b(ain)a	baita
1.EXCL		baia
2	bo/ba	ba
3	b(ain)e	b(a)e
<i>Deontic</i>		
1.INCL	(bai)nama	(bai)tama
1.EXCL		b(ai)ama
2	boma	boma
3	b(ain)ema	b(ai)ema
<i>Imperative</i>		
1.INCL	-	aita
1.EXCL		-
2	a	o
3	-	-
<i>Prohibitive</i>		
1.INCL	-	basita
1.EXCL		-
2	(b)asia	basio
3	-	-

¹⁷ Realis is formally unmarked and used to “portray situations as actualised, as having occurred or actually occurring, knowable through direct perception” (Mithun, 1999, p. 173). In *Motu*, this modality is used to refer to actions that have taken place or are taking place at the moment of the speech act.

¹⁸ Irrealis is formally marked by the prefix *b(ai)-* on the preverbal subject marker and “portrays situations as purely within the realm of thought, knowable only to imagination” (Mithun, 1999, p. 173). In *Motu*, irrealis is mainly used to encode non-real events which have not yet taken place. The imperative has been found to be marked for irrealis mood in a number of Oceanic languages (Lynch et al., 2002, p. 89). Although the imperative in *Motu* does not take the irrealis prefix, it appears that *b(ai)-* has been retained on the deontic and prohibitive subject markers.

Some adverbial constructions can function as post-head modifiers within the VP, e.g. (3.17a). However, this slot in the VP is only available to a small subset of adverbial words and the majority of verbal modifiers occur directly preceding or following the VP, as in (3.17b).

- Alongside the preverbal subject markers which primarily encode tense and/or modal information, there are two enclitics, *=mu* ‘PROG’ and *=va* ‘PST/HAB’ (see 3.17a and 3.3, respectively), which attach to the final element of the VP and establish temporal and aspectual reference. The progressive clitic *=mu* locates the event described by the verb in the here-and-now of the speech act and indicates the continuative state of the

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action. Conversely, =*va* is used to signal past or habitual action. Whereas =*mu* ‘PROG’ can occur in a VP with either the realis or irrealis preverbal subject markers, =*va* ‘PST/HAB’ only appears to occur with the realis set.

3.3.3 Verb serialisation

A second verb may follow the head verb to form either a directional or lexical SVC. In both constructions, the two verbs form a single monoclausal predicate which has just one tense, aspect, and polarity value, and there is no marking of subordination or coordination. The serial verb predicate shares arguments which are indexed on the first verb and the aspect/mood enclitic which occurs at the right-edge of the VP and is therefore attached to the second verb (see 3.18).

(3.18) *kaia amo e kadoa daemu*

kaia amo e kado-a dae=mu

knife INSTR 3.R scoop-3SG up=PROG

‘he is using the knife to scoop it up’

(SY1-VIDNR004-20191211, 09:26-09:29)

In (3.18), the first verb *kado* ‘scoop’ expresses an action and the following directional verb *dae* ‘up’ indicates the direction of the action denoted by the first verb in relation to the speaker or a particular point of reference. The second verb in these directional SVCs is drawn from a set presented in Table 3.8. These directionals can also occur as the head of a verbal predicate and form SVCs with other directional verbs, although some require additional morphology to function as the predicate head.

Table 3.8. Some directional verbs²⁰

Form	Meaning
<i>ma(i)</i>	‘come/VEN’
<i>la(o)</i>	‘go/AND’
<i>lou</i>	‘return/again’
<i>oho</i>	‘away’
<i>isi</i>	‘up’
<i>dae</i>	‘up’
<i>diho</i>	‘down’
<i>dobi</i>	‘down’
<i>lasi</i>	‘movement outwards’
<i>kau</i>	‘on/in contact with’

Lexical SVCs are structurally similar and are typically used for completive (3.19a) or resultative (3.19b) meanings.

- (3.19) a. *sisia se gwarume ona eania ore*

sisia ese gwarume ona **e ani-a ore**
 dog ERG fish until 3.R eat-3SG finish
 ‘the dog ate the fish until he finished it’

(SY1-STORY001-20190901_3, 1:30-1:33)

- b. *bema lau bia bainumu neganai bainu masemu*

bema lau bia ba inu=mu
 if 1SG beer 1SG.IRR drink=PROG
 nega-na=ai **ba inu mase=mu**
 time-3SG=LOC 1SG.IRR drink dead=PROG
 ‘if I drink beer, then I will be drunk [lit. drink to death]’

(MEU1-T5_20180628-01_002)

Motu SVCs are asymmetrical as only a restricted set of lexical verbs can occur as the second verb whereas the choice of the first verb is fairly unrestricted. These SVCs fit into the structural type of same-subject serialisation (Crowley, 2002) as the second verb takes as its implicit subject a sub-event expressed by the first verb to make a

²⁰ This list is not exhaustive and only represents the directional verbs attested in our 2018-2020 Motu corpus.

qualification about the manner in which the predication is performed. Motu does not appear to have SVCs of more than two verbs and lexical SVCs do not frequently occur. Semantically complex predicates are generally expressed either using bi-clausal constructions or verbal morphology.

3.4 Clause structure

A simple clause in Motu consists of one or more phrases containing a single predicate and can include additional adjuncts. The basic structure of a pragmatically unmarked main clause (excluding non-core arguments) is (SUBJECT) (+ OBJECT) + PREDICATE. The head of a predicate is most often a verb or verb phrase but a clause can also be headed by a nominal, adjectival, or adpositional word or phrase. Information about speech act distinctions²¹ and polarity is unmarked in affirmative declarative clauses (§3.4.1-§3.4.3), indicated by markers of negation in negative clauses (§3.4.4), and marked by intonation or a question word in interrogative clauses (§3.4.5).

3.4.1 Non-verbal clauses

The basic verbless clause structure in Motu is one NP followed by a non-verbal predicate which can be headed by a pronoun, noun, adjective, numeral or demonstrative, as well as some adpositional phrases. In contrast with verbal predicates, members of other word classes cannot take argument indexation or TAM marking when functioning as the head of a predicate²². The two main types of non-verbal clauses found in our Motu corpus are equational and existential clauses.

²¹ Imperative/hortative mood is not discussed here but these utterances follow the same clausal organisation as declarative sentences and take the imperative (or prohibitive, depending on the polarity of the utterance) preverbal subject markers presented in Table 3.7.

²² Although, as seen in (3.2), nouns (and adjectives) can directly take verbal morphology to function as the head of verbal predicates, they do not when functioning as head of a non-verbal predicate.

Equational clauses can be expressed by simple juxtaposition of noun phrases with no intervening verb or copula (3.20a), however they are usually expressed with *na* or *be* marking the non-predicative argument (3.20b-c).

(3.20) a. *lau ladagu Steph*

lau lada-gu Steph
1SG name-1SG Steph

b. *lau ladagu na Steph*

lau lada-gu **na** Steph
1SG name-1SG SPKR.ASYM Steph

c. *lau ladagu be Steph*

lau lada-gu **be** Steph
1SG name-1SG ADDR.(A)SYM Steph

‘my name is Steph’

(SY1-FieldNotes-Questions-20200111, elicited)

There is no existential verb in Motu and existential clauses are not formally distinct from other non-verbal predicates, as in (3.21).

(3.21) *manu na tamona*

manu na tamona
bird SPKR.ASYM one
‘there is one bird’

(SY1-STORY001-20190901_1, 02:47-02:48)

3.4.2 Verbal clauses: core arguments

A verbal clause consists of a VP predicate (see §3.3) and, optionally, noun phrases which function as core or peripheral arguments of the predicate. Core arguments are expressed by indexing on the verb, and in pragmatically unmarked constructions, the word order is AOV in transitive clauses (e.g., 3.17) and SV in intransitive clauses (e.g., 3.15). As the S/A is obligatorily indexed on the verb for all pronominal categories (see Table 3.7), there is often no overt nominal argument occupying the

Although the order of core constituents in transitive clauses is fairly fixed in Motu, non-A arguments may occur in clause-initial position when marked by *be* or *na*²⁴, which are postposed to the arguments they mark (3.22).

- As shown in (3.22b), when the non-A argument of a verbal clause is fronted, *ese* optionally marks the A argument, especially when the referent is animate to indicate its agentivity despite occurring in a non-canonical position. In such constructions, the A argument follows the O argument and directly precedes the verb²⁵. In previous work

²⁵ An understanding of the exact meaning and function of these left-dislocation constructions and the role of *na* and *be* in licensing the fronting of non-A arguments requires further detailed investigation of a number of phenomena. These include the conditions of (non-)use and meaning of the optional ergative *ese*, a more thorough analysis of extra-clausal slots, and the role of prosodic features in marking boundaries in Motu, all of which are beyond the scope of this thesis.

and in the present study, *ese* is analysed as an optional ergative marker (Lister-Turner & Clark, 1930, pp. 27-28; Lynch et al., 2002, p. 50; Taylor, 1970, p. 71), as it is predominantly the transitive A that is marked with *ese*.

In ditransitive clauses, the recipient-like argument, rather than the theme argument, is indexed on the verb by the object suffix. The order of object NPs is not fixed and neither theme nor recipient is marked for its syntactic role, although A retains its default clause-initial position if expressed by a NP.

(3.23) a. *Erue na sisia ta bamona e henia*

[Erue na]_A [sisia ta]_{DO} [bamona]_{IO} [e henia-a]_{VP}
 Erue SPKR.ASYM dog one friend 3.R give-3SG

b. *Erue na bamona sisia ta e henia*

[Erue na]_A [bamona]_{IO} [sisia ta]_{DO} [e henia-a]_{VP}
 Erue SPKR.ASYM friend dog one 3.R give-3SG
 ‘Erue gave a dog to her friend’

(SY1-VIDNR003-20191013, 09:23-09:27, elicited)

Additionally, as both subject NPs, and object NPs and suffixes are not required to be overtly expressed, the distinction between argument types is often syntactically underspecified and the interpretation of these constructions depends primarily on the context of the speech act in which they appear, as shown in (3.24).

(3.24) *sisia ana e henia*

[sisia]_{IO} [a-na]_{DO} [e henia]_{VP}
 dog AL.POSS.COM-3SG 3.R give
 ‘he gave his (food) to the dog’

(SY-STORY001-20190901_1, 03:44-03:47)

3.4.3 Verbal clauses: peripheral arguments

In addition to core arguments, a predicate may have arguments which are not obligatory and are not indexed on the verb. Such arguments in Motu generally refer to

time, location, instrument, source, or reason. Cross-linguistically, peripheral arguments are often marked by means of adpositions. However, like many Oceanic languages (see Lynch et al., 2002, p. 51), Motu has very few genuine adpositions and oblique meaning can also be expressed using applicative morphology (§3.3.1) or complex constructions.

There are two postpositions which mark peripheral arguments, =*ai* ‘LOCATIVE, GENERAL’ (3.25a) and *amo* ‘SOURCE, INSTRUMENT’ (3.25b). Whereas arguments marked by *amo* generally directly precede the verb and do not occur post-verbally, arguments marked by =*ai*, particularly those relating to temporal orientation, can follow the verb.

- (3.25) a. *una meromero na nadi amo emoru*
 [una mero~mero na]_S [nadi amo]_{OBL} [e moru]_{VP}
 DEM.DIST.SG RDP~boy SPKR.ASYM rock from 3.R fall
 ‘that little boy fell from the rock’
 (SY1-STORY002-20190901_2, 05:55-05:59)
- b. *aena amo e abia isi*
 [ae-na amo]_{OBL} [e abi-a isi]_{VP}
 foot-3SG INSTR 3.R take-3SG up
 ‘he took it up with his foot’
 (SY1-PICMAT001-20191013, 02:04-02:06)

Arguments marked by =*ai* ‘LOC’ situate the predicative action within its spatio-temporal context. Spatial meaning can be expressed simply with =*ai* attached to the head noun (3.26a) or using a locational noun which occurs in a part-whole construction where the ground is marked as possessor and =*ai* occurs on the locational noun which functions like a possessum (3.26b).

- (3.26) a. *kone ai eme darodae*
 [kone=ai]_{OBL} [e=me daro dae]_{VP}
 beach=LOC 3.R=ME sweep upwards

‘They landed on the beach’

(SY1-QUIS003-20190901_1, 00:29-00:33)

b. *bosea na patapata latanai heato*

[bosea na]_s [pata~pata lata-na=ai]_{OBL} [he-ato]_{VP}

basket SPKR.ASYM RDP~table top-3SG=LOC DETR-put

‘the basket is sitting on the little table’

(SY1-VIDNR003-20191013, 12:32-12:35)

Likewise, a temporal meaning can also be expressed using a part-whole construction with the postposition =*ai* marking the right edge of the noun phrase (3.27)²⁶.

(3.27) *lau ese boroma ta na henia lagani gunadiai*

[lau ese]_A [boroma ta]_{DO} [na henia-a]_{VP} [lagani guna-dia=ai]_{OBL}

1SG ERG pig one 1SG.R give-3SG year before-3PL=LOC

‘I gave him a pig in the years before’

(MEU1-ditransitive_verb_and_tense_20180627_033)

The clitic =*ai* also functions as a general marker of peripheral arguments, see (3.28), which forms a spontaneously produced minimal pair with (3.25b), illustrating that an oblique instrumental meaning can be expressed by both =*ai* or *amo* marking *aena* ‘his foot’²⁷.

(3.28) *aena ai e abia isi*

ae-na=ai e abi-a isi

foot-3SG=LOC 3.R take-3SG upwards

‘he took it up with his foot’

(SY1-PICMAT001-20191013, 02:02-02:04)

²⁶ While temporal meaning can be expressed without the locative clitic =*ai* attached, the clitic must occur in spatial expressions. In addition, modifiers can, but do not necessarily follow, the pattern of nominal modification described in §3.2.6 for adjectival nouns and lexical nouns. For example, *vaira dinana* ‘the day after tomorrow’ follows the pattern described for regular attributive modification. However, constructions like *hua vaira* ‘next month’ also occur where the noun being modified precedes the modifier and neither noun is marked by a ‘possessor’ suffix. This irregularity may be the result of lexicalisation of these temporal constructions, however further investigation is warranted.

²⁷ The converse is not possible, i.e., *amo* cannot mark a locative or temporal oblique argument felicitously.

3.4.4 Negative clauses

As in many other Oceanic languages (see Lynch et al. 2002, p. 51), the expression of negation is closely related to the expression of subject and TAM categories in Motu.

In verbal clauses, the negation marker *asi(n)-* is affixed to the preverbal subject marker and there is no change in word order from affirmative clauses.

- (3.29) a. *se*²⁸ *makohi e hamorua*
asin-e makohi e ha-moru-a
NEG-3.R break 3.R CAUS-fall-3SG
'it didn't break, she dropped it'
(SY1-PICMAT001-20191013, 06:15-06:17)
- b. *(b)asio hamakohia*²⁹
b-asi-o ha-makohi-a
IRR-NEG-2SG CAUS-break-3SG
'don't break it!'
(SY1-FieldNotes-Mood&Polarity-20200118, elicited)

Asi also occurs as an unbound word to negate non-verbal clauses headed by adjectival nouns (see §3.2.6) or other verbless clauses in which a nominal predicate in a corresponding affirmative clause would be preceded by *mai* 'with' to express some form of possessive or relational meaning. As seen in (3.30), *asi* occurs in the same grammatical slot as *mai* and the predicative element being negated takes person and number marking.

²⁸ The verbal negator *asi(n)-* and the third person realis preverbal subject marker *e* are often conflated in speech and realised as *se*.

²⁹ Note that the prohibitive (or negative imperative) is expressed in the same way as declarative verbal negation, i.e. with *asi(n)-* attached to the preverbal subject marker.

- (3.30) a. *vairagu tauna na asi goadana. muriguai tauna be mai goadana*
 vair-a-gu tau-na na **asi** **goada-na**
 front-1SG man-3SG SPKR.ASYM NEG strong-3SG
 muri-gu=ai tau-na be **mai** **goada-na**
 back-1SG=LOC man-3SG ADDR.(A)SYM with strong-3SG
 ‘the man in front of me is not strong, the man behind me is strong’
 (MEU1-Fieldnotes_Manu_T2_20180709_001)

There is another negator, *dia*, which is used in other non-verbal predicates, including those headed by words belonging to the adjective class proper and non-verbal clauses of the type described in §3.4.1.

- (3.31) *lasi ina dia buatau*
 lasi ina **dia** buatau
 no DEM.PROX.SG NEG betelnut
 ‘no, it isn’t betelnut’
 (SY1-VIDNR004-20191211, 07:00-07:03)

Existential clauses can also be negated by postposing *lasi*, which is also used as an interjection meaning ‘no’, to the predicate.

- (3.32) *ina na laulau lasi*
 ina na laulau lasi
 DEM.PROX.SG SPKR.ASYM picture no
 ‘there is no picture’
 (SY1-PICMAT001-20191013, 08:55-08:58)

3.4.5 Interrogatives

Polar interrogative clauses are often distinguished from declaratives simply by means of intonation and no other structural differences. The particle *ani* can optionally occur clause-finally in tag questions.

(3.33) *da hari ita be iniseni ai tame kau ani?*

da hari ita be iniseni=ai ta=me kau **ani**
 VADA HARI 1PL.INCL ADDR.(A)SYM here=LOC 1PL.INCL.R=ME arrive Q
 ‘and now we have arrived here, haven’t we?’

(SY1-STORY001-20190901_2, 04:35-04:40)

In non-verbal clauses, content interrogatives occur in predicate position following a nominal argument which is often marked by *be* (see 3.34a) but can also simply occur juxtaposed to the interrogative form with no intervening element (3.34b). While *na* and *be* can occupy the same grammatical slot in declarative clauses (see 3.20), *na* generally does not mark the nominal argument in interrogative clauses (see 3.34c)³⁰.

(3.34) a. *oi ladamu be dahaka?*

oi lada-mu be dahaka
 2SG name-2SG ADDR.(A)SYM what

b. *oi ladamu dahaka?*

oi lada-mu dahaka
 2SG name-2SG what

c. **oi ladamu na dahaka?*

oi lada-mu na dahaka
 2SG name-2SG SPKR.ASYM what

‘what is your name?’

(SY1-FieldNotes-VerblessInterrogatives-20200111)

With content interrogatives in verbal clauses, there are a number of clause order changes from declarative clauses. Regardless of which argument they refer to, interrogative constituents are generally preceded by noun or postpositional phrases which are fronted to clause-initial position and marked by *be*. (3.35a-b) show an object and peripheral argument, respectively, being fronted when the questioned

³⁰ See §4.4 for further discussion.

constituent is the A argument. The clause-initial demonstrative, *una*, in (3.35c) does not refer to an entity and functions as a semantically empty NP marked by *be*³¹.

(3.35) a. *buka be daika ese pata latanai e ha ato?*

buka be daika ese pata lata-na=ai e=ha ato
book ADDR.(A)SYM who ERG table top-3SG=LOC 3.R=HA put
‘who put the book on the table?’

(SY1-FieldNotes-VerbalInterrogatives-20200115)

b. *ranu ai be dahaka e ato?*

ranu=ai be dahaka e ato
water=LOC ADDR.(A)SYM what 3.R put
‘what was put in the water?’

(SY1-VIDNR003-20191013, 05:54-05:56)

c. *una be dahaka ranu lalonai e udaia?*

una be dahaka ranu lalo-na=ai e uda-i-a
DEM.DIST.SG ADDR.(A)SYM what water in-3SG=LOC 3.R PUT-TR-3SG
‘what was put in the water?’

(SY1-FieldNotes-VerbalInterrogatives-20200111)

3.5 Conclusion

This chapter has introduced the key areas of Motu grammar as a reference and to set the ground for the discussion in the following chapters of the two particles at the core of this present study. With these preliminaries in place, we will now turn to the engagement meaning (Chapter 4) and discourse functions (Chapter 5) of *na* and *be*.

³¹ See §4.4.1 for further discussion of the use of *be* in interrogative clauses.

Chapter 4

The engagement meaning of *na* and *be*

In Motu, the use of the two optional clausal argument markers *na* ‘SPKR.ASYM’ and *be* ‘ADDR.(A)SYM’ encodes grammatical meanings related to the speaker’s assumption about the addressee’s epistemic access to a given referent and anchors epistemic perspective between the speaker and/or addressee. As mentioned in §1.2, although previous literature has classified *na* and *be* as copulas, the present study argues that the function of these morphosyntactic particles can be more adequately described in terms of the intersubjective distribution of information. Of the roughly 16,000 words that comprise our corpus, there are 390 and 253 tokens of *na* and *be*, respectively. Although these two markers do not systematically mark nominal referents, the meaning, function and distribution of *na* and *be* in interaction provide crucial insights for understanding language use and social communication in Motu. This chapter will discuss the formal characteristics of *na* and *be* (§4.1) before discussing two issues central to the definition of engagement: the scope properties (§4.2) and intersubjective distribution of information (§4.3) signalled by *na* and *be*.

An investigation of the occurrence of these two markers in interactional speech provides evidence that the intersubjective meanings expressed by *na* (§4.3.1) and *be* (§4.3.2) relate to epistemic perspective and engagement considerations of relative mental accessibility. As discussed by Evans et al. (2018b), grammaticalised systems of engagement may interact in complex ways with various epistemic categories, such as evidentiality (see Gipper, 2014 on Yurakaré; San Roque, 2015 on Duna), epistemic authority (see Berqvist & Knuchel, 2019 on Swedish; Mansfield, 2019 on

Murrinhpatha), and complex perspective (see Bergqvist, 2016 on Kogi; Gipper, 2015 on Yurakaré). In Motu, the contrasts expressed by *na* and *be* involve two dimensions of meaning:

- (i) The speaker's assessment of what information their addressee has access to (i.e., engagement), and;
- (ii) The anchoring of this assumption of access (a)symmetry within the point-of-view of either the speaker or addressee(s) (i.e., epistemic perspective).

The distinction between symmetric and asymmetric distributions of information denotes whether speech participants have shared perceptual and/or cognitive access to an event (i.e. symmetric distribution of attention/knowledge) or whether access is exclusive to one party (i.e. asymmetric) from the speaker's subjective viewpoint (Evans et al., 2018b, p. 143). Following Bergqvist (2015, p. 124), 'perspective' relates in a theory-neutral way to "a subjectively anchored relation to the propositional content of a clause or utterance". This term is employed in this study as a coverall term for the distinct but related concepts of epistemic stance and authority (see Bergqvist, 2015, 2016; Heritage & Raymond, 2005; Kärkkäinen, 2003; Stivers et al., 2011). The use of *na* or *be* is motivated by a consideration of epistemic stance, which is conceived of as an interlocutor's highly situational estimation of the attentional and/or knowledge state of their addressee which is performed moment-to-moment during the sequential unfolding of interaction (Heritage, 2012, p. 6). Their use is also subject to Kamio's (1997) "territory of information" in which one SAP is perceived to be more entitled to knowledge of some entity or state of affairs than the other(s) based on conventionalised features of social relationships that dictate who has the right to know and what one can claim epistemic authority about.

Thus, *na* is glossed as speaker-asymmetric as its use is primarily oriented to the speaker’s perspective regarding a referent or situation that the speaker presumes their addressee does not have access to. In contrast, by using addressee-(a)symmetric *be*, the speaker orients some information in their utterance to the presumed perspective or ‘epistemic territory’ of their addressee and is non-specific with regard to access (a)symmetry (see Table 4.1).

Table 4.1. Knowledge distribution and perspective values of na and be

	Speaker-perspective	Addressee-perspective
Asymmetric	<i>na</i> SPKR.ASYM	<i>be</i> ADDR.(A)SYM
Symmetric	-	

As Evans et al. (2018a, p. 120) point out, the speaker’s very choice of sentence-type serves as an indication of their epistemic stance regarding a referent or proposition as the basic illocutionary function of a question is to request information (de Ruiter, 2012). The “epistemic gradient” of a question positions the speaker’s assumption of the addressee’s knowledge regarding the questioned constituent above the speaker’s own knowledge (Enfield et al., 2012), thus privileging the perspective of the addressee and the use of addressee-oriented epistemic forms in interrogative constructions has previously been examined (see San Roque et al., 2017 on evidentiality). §4.4 discusses the use of *na* and *be* in question-answer sequences which represent “the prototypes for adjacency pairs” (Enfield et al., 2010, p. 2615) and provide a particularly illuminating interactional setting for investigating intersubjectivity in discourse. Question-response sequences also play a major role in exploring presupposition and information structure and are often used as key diagnostic tests for investigating information structural categories in particular languages. By observing how questions are expressed, and how speakers respond to interrogative utterances, we can make inferences about

interlocutors' interpretations of these utterances and the meaning of the linguistic items used in them (Gipper, 2015, p. 230).

4.1 Morphosyntactic properties of *na* and *be*

In Motu, *na* and *be* mark NPs that function as clausal arguments to a predicate, so they do not occur with referential NPs that stand alone as a clause. Neither marker is restricted in terms of the specific value of the argument role or referent type it is attached to, so *na* and *be* can mark NPs which function as core or oblique arguments, and referents that are human, animate, inanimate, or non-referential. The two markers are mutually exclusive and occupy the same slot at the right-edge of the NP³², as illustrated by (4.1).

- (4.1) a. *ta be ehelai dihomu*
ta be e helai diho=mu
 one ADDR.(A)SYM 3.R sit down=PROG
 ‘one is sitting down’
 (SY1-VIDNR003-20191013, 01:43-01:46)
- b. *ta na ehelai dihomu*
ta na e helai diho=mu
 one SPKR.ASYM 3.R sit down=PROG
 ‘one is sitting down’
 (SY1-VIDNR003-20191013, elicited)
- c. *ta ehelai dihomu*
ta e helai diho=mu
 one 3.R sit down=PROG
 ‘one is sitting down’
 (SY1-VIDNR003-20191013, elicited)

³² Within this study, *na* and *be* are treated as phonologically independent words. However, the syntactic status and phonological boundedness of *na* and *be* warrant more detailed investigation.

As evident in (4.1), the two markers are optional and their use does not change the propositional content of an utterance. Instead, the contrast between the two markers arises from the engagement and epistemic perspective meanings expressed by their use in spontaneous speech contexts. In (4.1), although all three examples are grammatically felicitous, (4.1a) is the utterance that was spontaneously produced in the recording while (4.1b-c) were elicited during transcription as grammatically acceptable alternatives. The use of *be* in (4.1a) communicates a specific contextually-dependent meaning – namely the addressee’s accessibility to a single member, *ta* ‘one’, of a contextually inferable set which was discussed in the previous discourse³³. Thus, the use or non-use of *na* and *be* is not syntactically constrained, but rather based on considerations of pragmatic and interpersonal meaning, as is often the case for optional grammatical forms (see McGregor, 2013).

Na and *be* appear to differ in their distributional properties within the clause – while we have multiple examples where *na* occurs more than once in a clause, there are no attested examples in the corpus where *be* marks multiple arguments in a clause. In (4.2), both A and O are marked by *na*. This example is an extract from a recording where two of our consultants were describing food processing videos to another consultant who could not see the videos. In the preceding turns, the speakers had been talking about coconut cream, and the *na*-marked referents *ia* ‘she’ and *nadi* ‘stone’ had previously been introduced but had not been mentioned in the discourse for a while.

³³ See §4.3.2 for further discussion of the uses of *be*.

- (4.2) *ia na hari nadi na ma e kokimu*
 [ia na]_A hari³⁴ [nadi na]_O ma e koki=mu
 3SG SPKR.ASYM HARI rock SPKR.ASYM MA 3SG remove=PROG
 ‘she is removing the rocks’
 (SY1-VIDNR004-20191211, 21:30-21:34)

There is one instance in our corpus where *na* and *be* mark different arguments in the same clause (4.3). This example comes from the same task as (4.2) and the use of *be* indicates that the speaker assumes their addressee (the consultant who cannot see the video) is aware of the referent expressed by the third person singular pronoun *ia*. Conversely, the use of *na* to mark *niu* ‘coconut’ signals that the object is presumed to be unexpected and inaccessible to the addressee since they had previously been discussing *nao rabia* ‘cassava (lit. white man sago)’.

- (4.3) *ia be ma hari niu orena na e gigiamu*
 [ia be]_A ma hari [niu na]_O doini
 3SG ADDR.(A)SYM other HARI coconut SPKR.ASYM still
 e gigi-a=mu
 3.R squeeze-3SG=PROG
 ‘she is still squeezing the coconut’
 (SY1-VIDNR004-20191211, 26:44-26:49)

4.2 Scope of markers

As discussed in §2.1, engagement markers may display different scope properties both within and across languages. At the syntactic level, *na* and *be* target noun phrases rather than entire clauses – although, *na* does occur in lexical expressions which appear to mark entire clauses (see §4.3.1). The semantic range of *be* seems to generally correspond to the noun phrase (see 4.1a and 4.3). In contrast, *na* may have

³⁴ The meaning and constituency of *hari* is still to be worked out – its distribution is rather varied and its occurrence is attested clause-initially, immediately preceding noun phrases and verb phrases, or clause-finally. Speakers sometimes translate it as indicating specificity similar to the meaning of demonstratives although it seems to co-occur with demonstratives (see example 4.4a), but also meaning ‘now’ or ‘at present’.

propositional (see 4.4b) or referential (see 4.1b, 4.2, and 4.3) scope, depending on the context of use.

Example (4.4) is an extract from a recording where two speakers have been asked to work out a story from a set of ordered pictures³⁵. In this excerpt, MB and ES are discussing the sixth picture in the story where there is a close-up illustration of the bird singing embedded within the wider picture (Figure 4.1).

Figure 4.1. Picture 6 ('Crow sings, dropping fish') from the "Jackal and Crow" Picture Task (Carroll et al., 2011)



In (4.4a), MB uses *na* to mark both the proximal demonstrative *ina*, referring to the embedded image in picture 6, as well as *manu* 'bird', both nominal referents which MB assumes ES is not currently actively attending to since they had been talking about *sisia* 'dog' in the preceding turns. However, in her response in (4.4b), ES marks *manu* with *na* even though it seems clear that the referent is accessible to MB, given that she is the speaker who has just re-introduced it into the discourse. Rather than marking non-shared access to the referent itself, the use of *na* in (4.4b) appears to have

³⁵ The stimuli used in this recording came from the *Jackal and Crow* picture task (Carroll et al., 2011).

propositional scope and indicates asymmetric knowledge regarding the content of the entire utterance, i.e. that there is just *one* bird rather than two.

(4.4) a. MB: *hari ina na manu na rua*

hari ina na **manu na rua**
HARI DEM.PROX.SG SPKR.ASYM bird SPKR.ASYM two
‘with this one, there are two birds’

b. ES: *lasi, manu na tamona*

lasi **manu na tamona**
no bird SPKR.ASYM one
‘no, there is one bird’

(SY1-STORY001-20190901_1, 02:42-02:48)

As briefly mentioned in §2.1, other markers of engagement with referential scope in Abui and Ku Waru have developed functions that go beyond exclusively targeting nominal referents to have scope over whole propositions. However, unlike in these languages where the syntactic position of the marker also changes to reflect propositional scope, Motu *na* and *be* remain in the noun phrase regardless of their semantic scope³⁶.

4.3 Intersubjective distribution in discourse

The following subsections present the evidence for the intersubjective meaning parameters formally encoded by *na* (§4.3.1) as a speaker-asymmetric marker and *be* (§4.3.2) as addressee-(a)symmetric based on the key contexts in which they occur in interactional speech settings. However, before turning to this linguistic analysis, an emic perspective of *na* and *be* provided by one of our Motu consultants offers a thought-provoking insight into the contextual meaning of these forms. Although speakers readily recognise the presence of *na* and *be* in utterances and will repeat them

³⁶ The scope properties of *na* and *be* in Motu may require further investigation to more adequately account for the contextually dependent variation in meaning that results from their use, particularly in relation to *na*.

when listening to and transcribing recordings, they do not tend to include a lexical meaning for the markers in English translations of Motu texts. Similarly, when asked to describe the difference between a minimally contrastive pair of clauses with *na* or *be* marking the same nominal argument, as in (4.1), speakers indicate that there is no significant difference in meaning between the two clauses. Thus, rather than encoding any grammatical or semantic feature of the marked nominal referents, the use of these particles appears to have pragmatic implications.

Interestingly though, in some non-verbal clauses, different readings may be possible. Of the two utterances in (4.5), (4.5a) was the actual spontaneous utterance produced in the recording and (4.5b) was provided as a possible alternative during transcription. Our consultant said that (4.5a) could be translated as either ‘you *are/were* right’ while (4.5b) could only be understood as ‘you *are* right’. This translational contrast between *na* and *be* has subsequently been observed in other transcription sessions. Thus, the spontaneous use of *be* in (4.5a) seems to specify a relation to an antecedent within the common ground – in this case, an earlier statement made by the addressee that the speaker is recalling and to which they are orienting the discourse relation of their proposition. In contrast, the use of *na* in (4.5b) marks the proposition as representing new information that is not shared between speaker and addressee at the time of speaking, as suggested by the strict sense of present time associated with the translation. Additionally, the lack of a concrete meaning for these markers in elicitation environments may signal that they are very finely attuned to the particular interpersonal and contextual calibrations of the interactional speech settings in which they occur.

- (4.5) a. *oi be maoro*
oi **be** maoro
2SG ADDR.(A)SYM correct
‘you are/were right’
(SY1-VIDNR004-20191211, 20:54-20:59)
- b. *oi na maoro*
oi **na** maoro
2SG SPKR.ASYM correct
‘you are right’
(SY1-VIDNR004-20191211, elicited)

4.3.1 The engagement meaning of *na*

This section exemplifies the usage of *na* in the frequent contexts in which it occurs, including initial utterances, corrective judgements, and stance-taking expressions to support an analysis of this marker as a speaker-asymmetric form. The principle function of *na* in these constructions is to express the speaker’s epistemic perspective and signal their assumed asymmetric access to a referent or proposition, and/or to establish joint attention between interlocutors towards a discourse entity that the speaker presumes the addressee is not attending to at the time of the utterance.

Na is frequently used to mark referents that are newly introduced into the discourse which the speaker assumes the addressee is not currently aware of. In narrative contexts, *na* is often found marking a nominal argument (typically the S or A) in the first utterance of a recording and in these cases, the particle has referential scope. This can be seen in (4.6) which is the first line of a retelling of the *Jackal and Crow* story (Carroll et al., 2011). The narrative context is introduced using the expression *negatai* which can be translated as ‘once upon a time (lit. at one time)’, and *na* marks the nominal referent *manu* ‘bird’.

- (4.6) *negatai manu na gwarume e ita*
 nega-ta=ai **manu na** gwarume e ita
 time-one=LOC bird SPKR.ASYM fish 3.R see
 ‘once (upon a time), a bird saw many fish’
 (SY1-STORY001-20190901_2, 03:26-03:29)

Speakers also frequently open stories with an announcement about the story, as in (4.7). In these constructions, rather than marking a participant within the narrative, *na* is found occurring with *sivarai* ‘story’ and the participants are introduced as bare noun phrases. In both cases, this introducing function of *na* appears to be used to establish shared attention between speaker and addressee at the beginning of a story so that it can then continue with both interlocutors on the same page.

- (4.7) *sivarai na ini heto, manu ta gwarume e henaao*
sivarai na ini heto manu ta gwarume e henaao-a
 story SPKR.ASYM DEM.PROX.PL like bird one fish 3.R steal-3SG
 ‘the story is like this, one bird stole a fish’
 (SY1-STORY001-20190901_2, 03:07-03:11)

Na is also used to redirect the addressee’s focus of attention to a previously discussed referent which is not particularly salient in the discourse at the time of speaking, as in (4.2). This is also illustrated in the complement clause of *ura* ‘want’ in (4.8) where the English loanword *beginning* is marked by *na* and the speaker’s utterance is accompanied by a deictic point to the first picture in the stimuli set. In the preceding conversation, both interlocutors had been discussing the last picture in the story.

- (4.8) *lau egu ura na ‘beginning’ na mani baita itaia*
 [lau e-gu **ura na**]
 1SG AL.POSS.NCOM-1SG want SPKR.ASYM
 [**beginning na** mani baita ita-i-a]
 beginning SPKR.ASYM please 1INCL.IRR see-TR-3SG
 ‘I want us to look at the beginning’
 (SY1-STORY001-20190901_2, 01:40-01:42)

The main clause in (4.8) *lau egu ura na* ‘I want [lit. ‘my want’] expresses the personal intention of the speaker and the use of *na* signals a shift in the discourse to the speaker’s perspective. The main function of *na* here is to encode the speaker’s evaluation of knowledge asymmetry and assertion of their own epistemic perspective over the event of the proposition.

It is important to note that not all utterances are equally subject to the conveyance of epistemic stance and the construction used in (4.8) to communicate a want or desire is not the only one available in Motu to express such a meaning. A bi-clausal verbal construction, such as in (4.9), may also be used. However, the choice of the nominal possessive constructions found in (4.8) allows the speaker to mark their utterance with speaker-asymmetric *na* as a stance marker that overtly positions their own perspective and non-shared access within the expressed intention. Conversely, in (4.9) where two speakers are talking about a video³⁷ which both can see, the third person description of what is happening in the stimulus does not require the speaker’s subjective positioning.

³⁷ This video stimulus came from the Put Project (Bowerman et al., 2004).

- (4.9) *e uramu lahi bae karaia*
 e ura=mu lahi bae kara-i-a
 3.R want=PROG fire 3.IRR do-TR-3SG
 ‘he wanted to make a fire’

(SY1-VIDNR003-20191013, 02:40-02:45)

The speaker-asymmetric marker is also used in the expression of corrective judgements, which is another context in which a speaker explicitly indicates their perspective and/or stance. This can be seen in (4.10) where ES is describing video clips to DT who cannot see the videos but has corresponding stills, and both speakers have been asked to work cooperatively to match their respective stimuli³⁸. In (4.10a), ES re-states *memero rarua* ‘(there are) two boys’ after describing what the two boys are doing in the immediately preceding turns. After a moment of confusion in (4.10b), DT identifies the corresponding picture, shows it to ES and says (4.10c). The use of *na* in (4.10c) indicates that DT is both claiming epistemic authority, as the proposition is based on his own perspective, and signalling that this information is not shared by ES, who clearly holds an opposing opinion, i.e. that the two people in the video are boys while DT believes they are a boy and a girl³⁹. This use of *na* is similar to that discussed for (4.4b) which also express a corrective stance. As discussed for the earlier example, the speaker-asymmetric meaning of *na* extends to the opinion expressed by the propositional unit in (4.10c) rather than marking the nominal referent *ina* ‘DEM.PROX.SG’ (referring to the picture) as inaccessible to ES.

³⁸ This stimulus came from the Staged Events stimuli set (Van Staden et al., 2001)

³⁹ Note DT’s false start *ina be-* ‘this’ in (4.10c) before deciding to assert his own epistemic perspective and using *na* rather than *be* in the repair statement.

- (4.10) a. ES: *memero rarua*
 me~mero ra~rua
 RDP~boy RDP~two
 ‘there are two boys’
- b. DT: *ina kekeni, mero*
 ina kekeni mero
 DEM.PROX.SG girl boy
 ‘this is a girl, boy...’
- c. DT: *ina be- ina na kekeni*
ina na kekeni
 DEM.PROX.SG SPKR.ASYM girl
 ‘this is a girl’
- d. ES: *ina kekeni?*
 ina kekeni
 DEM.PROX.SG girl
 ‘is this a girl?’
- e. ES: *lau natomu mero*
 lau na tomu mero
 1SG 1SG.R say/think boy
 ‘I thought it was a boy’
- f. DT: *io*
 ‘yes’
- g. ES: *itaitana na ekara mero na heto*
itaita-na na ekara mero
 appearance-3SG SPKR.ASYM looks.like boy
na heto
 SPKR.ASYM like
 ‘it looks like a boy’

(SY1-PICMAT001-20191013, 09:24-09:39)

Another context in which *na* frequently occurs is in expressions that are often translated as ‘looks like (to me)’ where the proposition communicates the speaker’s subjective evaluation of a situation. Like the epistemic authority-asserting function of *na* shown in (4.7) and (4.10c), these stance-taking expressions, which generally occur either clause-initially or clause-finally, seem to have propositional scope. An example

of this construction can be seen in (4.10g) with the expressions *itaitana na ekara* and *na heto*, both meaning ‘looks like’ with the speaker’s subjective viewpoint indicated by the use of *na*.

4.3.2 The engagement meaning of *be*

Addressee-(a)symmetric *be* is unspecified for speaker-addressee perceptual access, but is generally found in speech contexts where the speaker is anchoring a referent within the perspective of the addressee, such as subsequent mentions in adjectival or locative predicates, marking contrastive constituents, agreeing responses, and in evocations of addressee knowledge. These uses primarily target the assumed epistemic perspective of the addressee in relation to the *be*-marked element of information, regardless of whether the addressee has superior mental access to the item or if both interlocutors are equally informed.

Be often marks the S argument in locational, adverbial, or adjectival clauses, such as in (4.11d), which frequently constitute a subsequent mention of a referent that has already been introduced into the discourse and can be expected to be accessible to the addressee. Example (4.11) represents the first four lines in the monologic description of a storyboard picture stimulus⁴⁰. In (4.11a), the main participants in the story are introduced, *tatau rarua* ‘two men’, as well as the *kada* ‘boat’ on which they are sailing. The speaker elaborates on the two men and what they are doing in (4.11b-c), and then uses *be* to mark the second mention of *kada* in (4.11d), which occurs in an adjectival predicate. The function of *be* in (4.11d) is to indicate that *kada* refers to an entity that the speaker expects the addressee to have knowledge about and grounds the new predicative information in the presumed epistemic domain of the addressee.

⁴⁰ The storyboard used came from Task 16 of the Questionnaire for Understanding Information Structure (Skopeteas et al., 2009).

- (4.11) a. *tatau rarua kada amo e heau e laomu*
 ta~tau ra~rua **kada amo** e heau e lao=mu
 RDP~man RDP~two boat INSTR 3.R sail 3.R go=PROG
 ‘two men are sailing on a boat’
- b. *be dahaka e roha laomu galasi amo*
 be dahaka e roha laomu galasi amo
 then something 3.R look AND=PROG glass INSTR
 ‘they are looking out at something using binoculars’
- c. *danu motumotu ta e itaiamu*
 danu motu~motu ta e ita-i-a=mu
 also RDP~island one 3.R see-TR-3SG=PROG
 ‘they are looking at an island’
- d. *edia kada be kurokuro*
e-dia kada be kurokuro
 AL.POSS.NCOM-3PL boat ADDR.(A)SYM white
 ‘their boat is white’

(SY1-QUIS003-20190901, 00:06-00:25)

Another context in which *be* frequently occurs is marking a contrastive constituent which represents an individuated element from a previously mentioned and contextually salient set. As shown in the second clause of (4.12), the speaker uses *be* to mark the referent *ta* ‘one’ in order to signal the addressee’s access to this referent, as it is associated with the wider group (*tatau tatoi* ‘three men’) that is described in the preceding clause. This use is similar to that seen in (4.1a).

- (4.12) *tatau tatoi, ta be muri kahanai*
 [ta~tau ta~toi] [**ta be** muri kaha-na=ai]
 RDP~man RDP~three one ADDR.(A)SYM back side-3SG=LOC
 ‘there are three men, one (of them) is at the back’

(SY1-VIDNR001-20190922, 00:48-00:51)

Additionally, while *na* is used in corrective statements, *be* commonly occurs in agreeing responses, as in (4.13c). The occurrence of *be* within *itaitana be ekara* ‘looks

like’ represents an infrequent collocation as this expression most often co-occurs with *na* to offer a speaker-exclusive opinion (see 4.10g).

However, in (4.13c), ES’s judgement that the object in the video does look like *buatau* ‘betelnut’ is in agreement with the MB and DT’s earlier polar interrogative utterances (4.13a-b). Therefore, *be* is used rather than *na* in this instance because ES is aware that the information expressed in this statement represents knowledge that is accessible from her addressees’ perspectives.

- (4.13) a. MB: *oi se o laloamu una buatau?*
 oi ese o lalo-a=mu una buatau
 2SG ERG 2SG think-3SG=PROG DEM.DIST.SG betelnut
 ‘do you think it’s a betelnut?’
- b. DT: *ina be dahaka? buatau?*
 ina be dahaka? buatau?
 DEM.PROX.SG ADDR.(A)SYM what betelnut
 ‘what is it? betelnut?’
- c. ES: *itaitana be ekara buatau*
 itaita-na **be** **ekara** buatau
 appearance-3SG ADDR.(A)SYM looks.like betelnut
 ‘looks like betelnut’

(SY1-VIDNR004-20191211, 06:51-06:57)

Whereas the previous examples have discussed symmetric uses of *be*, where the referent marked is accessible to both speaker and addressee, asymmetric uses of *be*, in which the speaker defers to addressee knowledge, are attested. (4.14) is an excerpt from an unprompted conversation (i.e., without stimulus) where four speakers are talking about their experiences when going back to visit family in Papua New Guinea. In this text, a correlation between *be* and second person forms can be observed in (4.14a) and (4.14e). When talking about the village that MB comes from, OK marks the relevant nominal referents with *be* to signal the addressee’s asymmetric claim to epistemic access regarding the entity being discussed. It is interesting to note that in

(4.14d), when ES is addressing the whole group rather than just MB, a third person plural form is used rather than a second person form to discuss the same referent, and *be* is not used. This non-marking and choice of impersonal pronominal form indicates that in this speech act, ES is not making an overt claim about the addressee's or their own epistemic status.

Furthermore, in (4.14f) when MB, who is the intended addressee of OK's second person pronominal expressions, discusses the situation in her Western Motu village, she marks the nominal referent *kerere gabuna* 'problem [lit. wrong situation]' with *na*. The propositional content of (4.14f) relates to MB's personal experience and expresses her opinion, which she assumes is not known to her interlocutors at the time of speaking. Thus, the use of *na* in this conversational sequence signals her exclusive access and epistemic authority regarding the issue of whether or not there is still enough land to have gardens in Western Motu villages given that the other speech participants are from, and had previously been discussing, the land situation in Eastern Motu villages.

- (4.14) a. OK: *umui hanua be ekara laloma kahanai*
umui hanua be ekara laloma kaha-na=ai
 2PL village ADDR.(A)SYM looks.like inside side-3SG=LOC
 ‘your village looks like it’s in an inland area’
- b. DT: *biru bona-*
 ‘garden and-’
- c. OK: *bo vareaimu*
 ‘you can go in’
- d. ES: *dounu mai edia uma kara gabudia*
 dounu mai **e-dia** uma kara gabu-dia
 still with AL.POSS.NCOM-3PL garden do place-3PL
 ‘they still have somewhere to make their gardens’
- e. OK: *umui be doini mai emui uma kara gabudia*
umui be doini mai
 2PL ADDR.(A)SYM still with
 e-mui uma kara gabu-dia
 AL.POSS.NCOM-2PL garden do place-3PL
 ‘you still have somewhere to make your gardens’
- f. MB: *momokani to kerere gabuna na, ah, da eme hutuma*
 momokani to **kerere gabu-na na**
 true but wrong situation-3SG SPKR.ASYM
 da e=me hutuma
 DA 3.R=ME many
 ‘that’s true, but the problem is that the population grew’
 (SY1-CONV001-20190825, 05:09-05:25)

4.4 Na and be in question-response sequences

A significant contrast between speaker-asymmetric *na* and addressee-(a)symmetric *be* concerns the use of these markers in questions and responses. In interrogative clauses, *be* frequently occurs while *na* is very uncommon. This association between the addressee-perspective marker and interrogative clauses in Motu follows the pattern described for addressee-oriented epistemic forms in several other languages, such as Kogi (Bergqvist, 2016), Duna (San Roque, 2015), and Andoke (Landaburu, 2007, p.

27). In elicited settings, the preferred responses that speakers provide to content questions include a clausal argument marked by *na* rather than *be* or no marking. However, in the corpus, responses are rarely full clauses and thus cannot be marked by either *na* or *be*. Example (4.15) is a spontaneously produced conversational sequence and represents a canonical question-response sequence in Motu. In (4.15), the referent being asked about, ‘cream’, is marked by *be* to indicate the addressee’s claim to knowledge in relation to it. Its counterpart in the response is marked by *na* to signal the asymmetric distribution of access from the speaker’s perspective at the time of the utterance. This example also illustrates the propositional scope of *na* as it is encoding asymmetric access to the information of the predicate rather than the marked referent, which is clearly accessible to DT who has just asked about it.

(4.15) DT: *cream be o itaia o lasi?*

cream be o ita-i-a o lasi
 cream ADDR.(A)SYM 2SG see-TR-3SG or no
 ‘can you see the cream or not?’

MB: *cream na hari dounu hari pani ai*

cream na hari dounu hari pani =ai
 cream SPKR.ASYM HARI still HARI pan =LOC
 ‘the cream is still in the pan’

(SY1-VIDNR004-20191211, 21:24-21:30)

The observable patterns found in questions (§4.4.1) and responses (§4.4.2) in Motu provide further evidence for the contrastive meanings related to epistemic perspective and access encoded by *na* and *be*.

4.4.1 Use in questions

As discussed in §4.1, the use of *na* and *be* in declarative contexts is not syntactically constrained and they are generally always interchangeable. However, this is not the case for content questions, in which *be* is ubiquitous and when the predicate of the interrogative clause is verbal, seemingly obligatory. However, *na* very rarely occurs

and Motu speakers judge its use in content questions to be ungrammatical in elicitation contexts (see 3.34c, reproduced below).

(3.34) a. *oi ladamu be dahaka?*

oi lada-mu be dahaka
2SG name-2SG ADDR.(A)SYM what

b. *oi ladamu dahaka?*

oi lada-mu dahaka
2SG name-2SG what

c. **oi ladamu na dahaka?*

oi lada-mu na dahaka
2SG name-2SG SPKR.ASYM what

‘what is your name?’

(SY1-FieldNotes-VerblessInterrogatives-20200111, elicited)

Both *be* (4.16f) and *na* (4.17b) can occur in polar questions, which primarily function to request affirmation or rejection in response to a candidate proposition (Heritage & Raymond, 2012). The alternation between *na* and *be* in polar questions seems to reflect the speaker’s degree of certainty in the opinion expressed. Speakers appear to use *be* when they are not sure of their claim, and thus privilege the addressee’s knowledge over their own. In (4.16), two speakers are discussing the *Frog Story* (Mayer, 1969). In (4.16a-c), MB and OK establish that the word for ‘bee’ is *nanigo*. Then, OK introduces a different word for ‘bee’, *ubama* in (4.16e) and in the clarifying tag question shown in (4.16f), MB uses *be* to mark the newly introduced word *ubama*. The occurrence of *be* in this polar interrogative clause indexes a sloping epistemic gradient where MB is signalling a lack of definite knowledge and indicating that her addressee, OK, has a primary right to that knowledge. In (4.16g), OK responds with a complete clause confirming that *nanigo* and *ubama* are indeed both words for ‘bee’.

- (4.16) a. MB: *ina be dahaka?*
 ina **be** dahaka
 DEM.PROX.SG ADDR.(A)SYM what
 ‘what is this?’
- b. OK: *na- nanigo, eh, dia nanigo*
 nanigo dia nanigo
 bee NEG bee
 ‘a bee, no, it’s not a bee’
- c. MB: *io, io, nanigo*
 ‘yes, yes, it’s a bee’
- d. MB: *idia ehetuhava lalonai, hari idia sisia-*
 idia e hetuha=va lalo-na=ai hari idia sisia
 3PL 3.R search=PST/HAB in-3SG=LOC HARI 3PL dog
 ‘while they were searching, the dog-’
- e. OK: *ubama, ubama, io, ubama ena-*
 ubama ubama io ubama e-na
 bee bee yes bee AL.POSS.NCOM-3SG
 ‘a bee, a bee, yes, the bee has-’
- f. MB: *‘ubama’ be da hari nanigo, ani?*
 ubama be da hari nanigo ani
 bee ADDR.(A)SYM DA HARI bee Q
 ‘ubama is nanigo, right?’ (‘these are both words for bee, right?’)
- g. OK: *nanigo ubama, io*
 nanigo ubama io
 bee bee yes
 ‘nanigo is ubama, yes’ (‘these are both words for bee, yes’)
- (SY1-STORY002-20190901_1, 05:46-05:48)

Conversely, *na* is used when the speaker feels more certain in their statement and expresses the speaker’s increased commitment to the likelihood that the propositional content of the polar question is true compared to *be*. The polar interrogative shown in (4.17b) is a re-statement of a proposition that MB had already expressed in a declarative sentence in (4.17a). *Na* is used in both the declarative and interrogative

clause to indicate that the informational content is based on the speaker's perspective and claim to knowledge.

- (4.17) a. MB: *to una hari idia na ma- e kopaia*
to una hari idia **na** e kopa-i-a
but DEM.PROX.SG HARI 3PL SPKR.ASYM 3.R peel-TR-3SG
‘but they look like they peeled it’
- b. MB: *hari nao rafia na e kopadia, ani?*
hari **nao** **rafia** **na** e kopa-dia ani
HARI white.man sago SPKR.ASYM 3.R peel-3PL Q
‘they peeled the cassava, didn’t they?’
- c. ES: *mm*
- d. MB: *badina itaitana e kopadia*
badina itaita-na e kopa-dia
because appearance-3SG 3.R peel-3PL
‘because it looks like they peeled it’
(SY1-VIDNR004-20191211_2, 30:24-30:27)

Polar questions can also occur without either marker, as in (4.13a). Similarly, in (4.18d), the third person singular pronoun *ia* does not refer to *manu* ‘bird’ or *gwarume* ‘fish’, the two discourse participants most recently discussed, but rather to *sisia* ‘dog’. Thus, MB does not link her question with assumed prior information in either interlocutor’s knowledge/attentional field or make an explicit epistemic assertion in relation to the interrogative content.

- (4.18) a. ES: *manu uduna e hagaia bena gwarume na e moru*
 manu udu-na e haga-i-a
 bird mouth-3SG 3.R open-TR-3SG
 bena gwarume na e moru
 then fish SPKR.ASYM 3.R fall
 ‘the bird opened its mouth and the fish fell out’
- b. MB: *unuseniai*
 ‘there’
- c. ES: *io*
 ‘yes’
- d. MB: *io, ia e kwaru, ani?*
 io ia e kwaru ani
 yes 3SG 3.R bark Q
 ‘yes, is he barking?’
- (SY1-STORY001-20190901_2, 00:49-00:50)

There are two examples in the corpus in which *na* is used in a content interrogative – both of which are the utterance shown in (4.19) and expressed by the same speaker in a single recording. This occurrence of *na* may suggest that the infrequency of this marker is not due to any differential syntactic requirements of interrogative clauses but the conventional pragmatic context of questions. Thus, in the majority of questioning clauses, the epistemic configuration encoded by *be* invoking the addressee’s viewpoint is felicitous, however in some interactional settings, the intersubjective meaning of *na* may be appropriate⁴¹.

⁴¹ The very few instances that we have in our current corpus do not shed much light on the individual interactional circumstances that allow for the use of *na* in questions as they both occur in segments with a lot of overlapping speech and the questions are not responded to by the addressees.

- (4.19) *motu ai na dahaka?*
 motu =ai **na** dahaka
 motu =LOC SPKR.ASYM what
 ‘what is it in Motu?’

(SY1-VIDNR004-20191211, 3:21-3:23)

Nevertheless, *be* is the marker that occurs in the majority of content questions – it commonly occurs in non-verbal content questions and its use appears to be obligatory in verbal content interrogatives. This distribution provides additional evidence for its analysis as an addressee-(a)symmetric marker, since questions typically represent the repositioning and centring of epistemic access and rights to knowledge towards the addressee.

As discussed in §3.4.5, there are a number of structural differences between declarative and interrogative sentence-types in Motu. As shown in (3.35, reproduced below), the preferred word order in a verbal interrogative clause is:
 NP *be* question-word (NP) VP.

- (3.35) a. *buka be daika ese pata latanai e ha ato?*
 [buka be]_O [daika ese]_A [pata lata-na=ai]_{OBL} [e=ha ato]_{VP}
 book ADDR.(A)SYM who ERG table top-3SG=LOC 3.R=HA put
 ‘who put the book on the table?’
 (SY1-FieldNotes-VerbalInterrogatives-20200115)
- b. *ranu ai be dahaka e ato?*
 ranu=ai be dahaka e ato
 water=LOC ADDR.(A)SYM what 3.R put
 ‘what was put in the water?’
 (SY1-VIDNR003-20191013, 05:54-05:56)
- c. *una be dahaka ranu lalonai e udaia?*
 una be dahaka ranu lalo-na=ai e uda-i-a
 DEM.DIST.SG ADDR.(A)SYM what water in-3SG=LOC 3.R PUT-TR-3SG
 ‘what was put in the water?’
 (SY1-FieldNotes-VerbalInterrogatives-20200111)

The examples in (3.35) illustrate that in verbal content questions, there is always a NP argument – which is not the question word – that occurs in initial position and is marked by *be*. In (3.35a), the O argument is fronted while a locative oblique argument occurs in clause-initial position in (3.35b). In both cases, the NP that is fronted and marked by *be* refers to an entity that the speaker assumes the addressee has access to and grounds the interrogative content of the question within this known referent. Although the scope of *be* in declarative clauses seems to apply only to the marked NP, the use of *be* in questions appears to signal that the propositional content of the interrogative clause is assumed to be within the epistemic territory of the addressee. This is particularly clear in (3.35c), where *be* marks a demonstrative that does not refer to a particular entity but rather, functions as a semantically empty NP to occupy the clause-initial slot of the interrogative construction⁴².

⁴² Both (3.35b) and (3.35c) have the same representational meaning and the factors that determine which clausal argument is fronted or whether a ‘dummy’ demonstrative occupies the clause-initial position require further investigation.

4.4.2 Use in responses

In elicitation contexts, *na* frequently occurs in responses while the occurrence of clausal arguments that are marked by *be* or unmarked are less frequent. In spontaneous speech, most responses to interrogative constructions in Motu are not complete clauses and only include the target NP or do not include any overt nominal expressions that correspond to the question constituents (see 4.20), and thus are not candidates for *na*- or *be*-marking (see §4.1).

(4.20) DT: *mereki be ede bamona?*

mereki be ede bamona
plate ADDR.(A)SYM how like
'how was the plate?'

ES: *e makohi*

e makohi
3.R break
'it broke'

(SY1-PICMAT001-20191013, 06:24-06:30)

However, (4.15) and (4.21) are both spontaneous question-response sequences which contain a *na*-marked argument in the response. This signals an asymmetric distribution of knowledge from the perspective of the speaker, as answers typically represent informational update in response to a request for information posed by the addressee. In (4.21), OK asks if he can look at the picture stimuli using a polar question while MB is describing the story to him. MB uses *na* in a disagreeing response to communicate her viewpoint, which is not known by her addressee at the time of the utterance.

(4.21) OK: *laulau do baina itaia?*

laulau do baina ita-i-a
picture yet 1SG.IRR see-TR-3SG
'can I look at the picture yet?'

MB: *lasi, oi na basio itaia*

lasi **oi na** basio ita-i-a
no 2SG SPKR.ASYM 2SG.NEG.IRR see-TR-3SG
'no, you can't look at the picture'

(SY1-STORY001-20190901_3, 00:12-00:15)

Be may also occur in responses, particularly in agreeing contexts, as shown in (4.13c). However, (4.22) shows *be* in a response to a content interrogative clause, rather than to a polar interrogative clause. Both speakers had been looking through and discussing picture stimuli⁴³ immediately before this question-answer sequence, and both knew their interlocutor was actively attending to the same picture. As such, OK's response does not represent informational update based on the speaker's asymmetric access to the given entity or event. Rather, by marking the referent using *be* rather than *na*, OK is indicating that he assumes ES is already aware of *ina kekeni ladana* 'the girl's name'.

⁴³ The stimulus for this recording was *The Monster Story* (O'Shannessy, 2004).

(4.22) ES: *ia ladana be dahaka?*

ia lada-na be dahaka
3SG name-3SG ADDR.(A)SYM what
'what is her name?'

OK: *io, um, ina kekeni ladana be Monster*

io ina kekeni lada-na be Monster
yes DEM.PROX.SG girl name-3SG ADDR.(A)SYM Monster
'yes, this girl's name is Monster'

(SY1-STORY003-20191027_1, 00:41-00:52)

4.5 Conclusion

This section has explored the use and distribution of the Motu discourse markers *na* and *be* to support an analysis of *na* as signalling speaker-asymmetric meaning and *be* as addressee-(a)symmetric. Following an overview of the formal features of *na* and *be* (§4.1-§4.2), the ways in which the perspective of speaker and addressee, and considerations of epistemic (a)symmetry figure in the use of *na* and *be* in declarative (§4.3) and interrogative (§4.4) clauses was discussed. The engagement system described here for Motu, like others (see §2.1.2), involves complex interaction with another epistemic category, that of perspective, and by extension, the notions of stance and authority. Unlike canonical systems, *na* and *be* are not functionally symmetrical and are not obligatory in most contexts. The use of interactional data to investigate and elucidate the engagement meanings of *na* and *be* in this analysis demonstrate how speakers continually manage and negotiate their relative viewpoints on the information being discussed. The markers are used to signal the communicative intentions of speakers and situate the perspective and access of speech participants regarding a referent from the subjective view of the speaker. *Na* and *be* represent a key grammatical resource for the intersubjective process of common ground management in Motu and display a variety of additional interactional functions in discourse contexts (see Chapter 5).

Chapter 5

Discourse functions of *na* and *be*

The grammatical meaning of *na* and *be* described in Chapter 4 encodes epistemic a/symmetry and orientation, and involves coordinating attention/knowledge between interlocutors by establishing and guiding reference in interactional discourse.

However, this description does not account for all instances of these markers in the corpus. By further studying constructions marked by *na* and *be* in their full discourse contexts, we can begin to understand how Motu speakers utilise these engagement markers to encode related interlocutor-oriented moves associated with the informational status of a given propositional entity in relation to the common ground.

In different speech genres, the primary engagement function of *na* and *be* is pragmatically extended to create interpretive effects related to information structural notions and employed in Motu to organise discourse and manage information flow (§5.1). As discussed in §2.2, information packaging, like engagement, relates to how speakers organise and express propositional content with respect to their assessment of knowledge that is, or is not, shared by their interlocutor(s) in a particular communicative situation.

The link between the seemingly distinct outcome interpretations associated with the use of *na* and *be* are discussed in §5.2. I argue that the engagement (§4) and information structural (§5.1) uses of the two markers can be brought together by considering the closely related pragmatic functions performed by the separate grammatical domains in achieving attentional alignment and discourse cohesion. Thus, this further analysis of *na* and *be* provides evidence for meaningful links

between engagement and information structure as the intersubjective functions formally expressed by them cross-cut the functions associated with both domains and reflect the multifaceted interactional process of common ground management.

5.1 **Information packaging effects of *na* and *be***

Na and *be* can be used to manage the intersubjective settings between speech participants in discourse by facilitating the speaker's organisation of their speech to link propositional content with what has come before, i.e. what constitutes the common ground, and/or to foreshadow the status of information in the talk to come. This section discusses occurrences of *na* and *be* which appear to have functions with pragmatic effects related to topicalisation and reference management (§5.1.1).

As discussed in §2.2, topic constituents are typically defined in terms of aboutness and identified as the entity about which a given proposition is understood to convey relevant information (see Erteschik-Shir, 2007; Lambrecht, 1994; Reinhart, 1981). While this definition of topic is concerned with referents at the sentence level, a discourse topic is the referent that a longer stretch of speech is about (Prince, 1992) and is the participant “most crucially involved” in the action of a given discourse segment (Givón, 1983, p. 8). Nominal arguments that are marked by *na* and *be* are typically discourse topics and the particles are used to foreground the importance of attending to the marked referent due to its topicality in the following discourse. The alternation between *na* and *be* in these contexts appears to be motivated by referent-tracking considerations. Namely, whether the marked nominal introduces and establishes a new and/or contextually non-salient discourse topic (*na*) or represents the re-introduction of a previously established and accessible topic referent that is explicitly linked to prior knowledge (*be*). Speakers use both of these particles to draw attention to the information under their scope and establish what a given unit of

discourse is about, thus instantiating one of the basic notions of information structure – topic. However, the specific interpretations and patterns of usage of *na* and *be* do not fit neatly into this pre-established category, a finding which corroborates the critical assessments presented by Matic' and Wedgwood (2013) and Ozerov (2018) which challenge the cross-linguistic relevance of supposedly universal categories of information structure, such as *topic* and *focus* (see §2.2.2).

Before turning to the information packaging role of engagement markers in Motu discourse, some particularly relevant aspects of the wider information structural system which interact with uses of *na* and *be* are briefly outlined. As discussed in §2.2.1, there is a significant cross-linguistic link between topic continuity, information status, and referential form as a linguistic device for indicating whether speakers are referring to the same or a different discourse participant. In Motu, discourse-new referents are generally lexical NPs while anaphoric forms, such as demonstratives and pronouns, are used to denote referents that have already been introduced. Both referential form types can be marked by *na* or *be*. Often though, in subsequent mentions of referents, particularly continuing topics, there is no overt expression beyond verbal indexation. Impressionistically, there appears to be a greater prevalence of non-lexical forms to express S/A than O arguments. This pattern indicates that subjects are often the discourse-given referents that function as the topic constituent, which is also a strong correlation cross-linguistically (Lambrecht, 1994, pp. 131-132). Conversely, O arguments are more likely to be expressed using lexical NPs and often function to introduce new referents into the discourse⁴⁴.

⁴⁴ Note that these claims regarding speaker preferences for expressing the information status and discourse role of nominal referents require substantiation by more systematic corpus investigation involving additional considerations, such as animacy and antecedent function.

5.1.1 The role of *na* and *be* in managing discourse reference

The engagement functions of *na* and *be* when applied to nominal referents provide Motu speakers with a strategy for reference resolution by anticipating and guiding addressees' interpretation of the entities being discussed. This can be seen in the distribution of *na* and *be* described in Chapter 4, such as the use of *na* in initial introductions to narrative texts, the occurrence of *be* in subsequent, often elaborative, mentions, and the alternation of *be* and *na* in marking the same referent in question-response pairs.

An occurrence of *na* which cannot be easily accounted for by its speaker-asymmetric meaning is shown in (5.1) where ES and OK are looking at and discussing the same picture in a story sequence⁴⁵. In (5.1c), *tau dikana* 'bad man' is marked by the speaker-asymmetric marker despite the fact that the addressee, OK, could comfortably be presumed to have access to the referent, having just provided the name of the referent (5.1b) in response to ES's question (5.1a). In this example, *na* does not appear to encode asymmetric access to the referent from the speaker's perspective. Rather, its function seems to establish *tau dikana* as the referential frame by which the information in the subsequent speech is to be interpreted. Thus, in the following clauses (5.1d-e), where its status as discourse topic is maintained by both speakers, *tau dikana* is referred to simply by the preverbal subject marker.

⁴⁵ The stimuli used in this recording was the *Monster Story* (O'Shannessy, 2004).

- (5.1) a. ES: *hari ladana be daika?*
 hari **lada-na** **be** daika
 HARI name-3SG ADDR.(A)SYM who
 ‘what’s his name?’
- b. OK: *vada tau dikana*
 vada **tau** **dika-na**
 VADA man bad-3SG
 ‘the bad man’
- c. ES: *tau dikana na eraka ema*
 tau **dika-na** na e raka e ma
 man bad-3SG SPKR.ASYM 3.R walk 3.R come
 ‘the bad man walked (towards them)’
- d. ES: *benā sisia baine abia*
 bena sisia baine abi-a
 then dog 3.IRR take-3SG
 ‘then he tried to take the dog’
- e. OK: *hena- da e henaōa na heto*
 da e henaō-a na heto
 VADA 3.R steal-3SG SPKR.ASYM looks.like
 ‘looks like he stole it’

(SY1-STORY003-20191027_1, 02:18-02:34)

A similar instance can be seen in (5.2) which represents the first few clauses describing a video where a man is preparing betelnut with some children watching. This example demonstrates how nominal arguments are typically established and subsequently referred to in Motu discourse. In (5.2b), the referent *tau burakana* ‘old man’ is introduced using a reduced form of the numeral ‘one’, *ta*, which functions as an indefinite marker within a presentational construction⁴⁶: an intransitive predicate with the stative verb *helai* ‘sit’. Following this initial mention, *tau burakana* is the only active discourse participant being discussed and is referred to simply by verbal indexation (5.2c). In (5.2e), the four children, *maragidia taudia hahani*, are introduced

⁴⁶ As well as stative predicates, as is the case in (5.2), non-verbal predications are also often used in introductory clauses.

with reference to their location in relation to the already established referent *tau burakana*. Thus, the postpositional phrase *ia murinai* ‘behind him’ is marked by *be* to ground the introduction of *maragidia taudia hahani* within information that the speaker assumes is known to their addressee. As *maragidia taudia hahani* represent more than one person, they cannot be introduced using *ta* but do occur in a presentational construction, followed by a transitive clause where *tau burakana* is the O argument in (5.2g). When the topic referent switches back to *tau burakana* as A in (5.2h), *na* is used to mark it even though the addressee(s) clearly is aware of and has mental access to the referent, and this salience is expressed by the choice of pronominal form *ia* ‘3SG’ rather than a lexical NP. As in (5.1c), *na* appears to have a topicalising rather than engagement function in (5.2h). In this example, where multiple active participants are potential candidates to be the aboutness referent, the topic-establishing use of *na* is employed to signal a switch in discourse topic in order to guide the addressee’s interpretation of the propositional content in the following discourse.

- (5.2) a. DT: *ina be dahaka?*
 ‘what is this?’
- b. ES: *tau burakana ta helai*
 tau buraka-na ta helai
 man old-3SG one sit
 ‘there is an old man sitting down’
- c. ES: *imana vaina lalona amo au raudia haida e vaimu*
 ‘he took out some leaves from his bag with his hand’
- d. MB: *mm*
- e. ES: *ia murinai be maragidia taudia hahani*
 ia muri-na=ai be
 3SG back-3SG=LOC ADDR.(A)SYM
 maragi-dia tau-dia ha~hani
 small-3PL person-3PL RDP~four
 ‘behind him, there are four children’
- f. MB: *hahani*
 ‘four’
- g. ES: *hehelai be ia e raraiamu*
 he~helai be ia e rara-i-a=mu
 RDP~sit then 3SG 3.R look-TR-3SG=PROG
 ‘they are sitting down and looking at him’
- h. ES: *be ia na kaia amo hari buatau- na ekara buatau ta na e polaiamu*
 be **ia na** kaia amo
 then 3SG SPKR.ASYM knife INSTR
 [na ekara buatau ta na]
 SPKR.ASYM looks.like betelnut one SPKR.ASYM
 e pola-i-a=mu
 3.R cut.in.half-TR-3SG=PROG
 ‘he is cutting what looks like a betelnut in half with a knife’
- (SY1-VIDNR004-20191211, 05:50-06:14)

The information packaging use of *be* signals a different kind of discourse transition, as can be seen in (5.3c). As in examples (5.1) and (5.2), *na* establishes the topic

constituent in (5.3a)⁴⁷ by marking the A argument *sisia* ‘dog’ while *mero ta* ‘a boy’ is introduced as the object and unmarked. In the following line, *mero* is marked by *na* despite having just been referenced to indicate a switch in its discourse function as *mero* is now the subject and topic constituent in (5.3b). In (5.3c), the topic referent is re-established as *sisia* and this shift is marked by *be* rather than *na*. This use of addressee-oriented *be* appears to have a topic-resumptive function, explicitly linking this re-establishment of *sisia* with the earlier mention of the referent in (5.3a) which the speaker assumes is accessible for their addressee.

- (5.3) a. *sisia ta na meromero ta e havaiava*
sisia ta na mero~mero ta e hava-i-a=va
 dog one SPKR.ASYM RDP~boy one 3.R chase-TR-3SG=PST/HAB
 ‘a dog is chasing a little boy’
- b. *mero na e keto au na ta e roho hanai*
mero na e keto au na ta e roho hanai
 boy SPKR.ASYM 3.R fall tree REL one 3.R jump over
 ‘the boy jumped over a tree that had fallen’
- c. *sisia be ia murina amo e heau e laova*
sisia be ia muri-na amo e heau e lao=va
 dog ADDR.(A)SYM 3SG behind-3SG from 3.R run 3.R go=PST/HAB
 ‘the dog was running behind him’
- (SY1-QUIS003-20190901, 01:50-02:04)

Relatedly, *be* also seems to have an elaborative use, as can be seen in (5.4b), which is a descriptive extension of the propositional content of (5.4a), and the occurrence of *be* marking *tao nao ta* ‘a white man’ in (5.4b) signals the co-referentiality of this full lexical NP with *tau ta* ‘a man’ introduced in (5.4a). The *be*-marked referent then continues on as the discourse topic in the subsequent clause (5.4c).

⁴⁷ The first line of a monologic description of a storyboard task (Task 16) from the Questionnaire for Understanding Information Structure (Skopeteas et al, 2006).

- (5.4) a. *tau ta oriori ai helai*
 tau ta oriori =ai helai
 man one scraper =LOC sit
 ‘a man is sitting on the (coconut) scraper’
- b. *tau nao ta be oriori lata-na=ai helai*
tau nao ta be oriori lata-na=ai helai
 man white.man one ADDR.(A)SYM scraper on-3SG=LOC sit
 ‘a white man is sitting on top of the scraper’
- c. *be ilapa amo- ilapa amo niu, um, e hamakohiamu*
 ilapa amo niu e ha-makohi-a=mu
 knife INSTR coconut 3.R CAUS-break-3SG=PROG
 ‘then with the knife- he is breaking the coconut with the knife’
 (SY1-VIDNR002-20190922, 00:14-00:22)

Both markers may occur with referents that denote a shift in discourse topic and are used to draw attention to the information under their scope. However, the information-structuring function of *na* appears primarily concerned with signalling the aboutness status of the marked referent in upcoming talk, whereas *be* is used to connect nominal arguments with prior information in the discourse.

This same pattern is shown in (5.5)⁴⁸ which focuses on three main participants, *sisia* ‘dog’, *idia* ‘3PL’ referring to a group of children (one of whom owns the dog), and *tau* ‘man’ who has taken the dog. Each participant has previously been introduced separately and the segment in this example represents a point in the story where all three referents are playing active roles in the narrative and interacting with one another. While *na* and *be* are not used very frequently in the overall corpus, in this example, the markers occur on 5 of the 9 NPs and function to track reference between the participants in the discourse and thus, contribute to discourse cohesion. In (5.5a), the group of children are referred to by 3PL pronominal suffix *-dia* on the noun *diba*

⁴⁸ A discourse segment from two speakers looking at the pictures for and working out *The Monster Story* (O’Shannessy, 2004) cooperatively.

‘to know/knowledge’, whereas *tau* ‘man’ and *sisia* ‘dog’ are expressed using lexical NP forms. The occurrence of the optional ergative marker *ese* on *tau* in the verbal complement clause of ‘to know’ highlights the agentivity of the referent, given that *tau* is not the A in the main clause.

In the following line, (5.5b), two of the referents mentioned in (5.5a) are further discussed. While the continuing subject is expressed using a pronominal form again, *idia*, the object *tau* is referred to by a lexical NP. As mentioned in §4.1, *na* can mark multiple nominal arguments in a single clause. Unlike example (4.2) though, where neither of the referents marked by *na* had been mentioned in the recent conversation, in (5.5b), both referents were discussed in the immediately preceding turn and could easily be assumed to be accessible to the addressee. The function of *na* on both nominal referents seems to signal that *idia* as well as *tau* will play an important role in the following talk rather than strictly establishing a single discourse topic.

In (5.5d), the continuing topic, *idia* ‘3PL’ is once again referenced by a nominal expression that is poor in descriptive content, the distal singular demonstrative *una*, with *be* signalling co-reference to the subject of the preceding clause. Note that this *be*-marked nominal expression is only used after a false start *ela hari-* ‘they went and-’ which does not feature an overt referential form. The repair statement with *una* referring to the subject allows for the use of *be* to overtly signal co-reference, thus facilitating a less ambiguous reading, given that both nominal referents were marked by *na* in (5.5b) to be actively attended to by the addressee. *Tau* ‘man’, as the object, is marked by *na* again in this utterance and becomes the discourse topic in the subsequent clause (5.5f) where it is referenced by verbal indexation only. The object in (5.5f) is a re-introduced *sisiasisia* ‘dog’ which is marked by *be* to indicate co-reference with the *sisia* mentioned earlier but is not accompanied by a shift in discourse topic.

- (5.5) a. ES: *dibadia una tau ese sisia e henaoo, e roha lao da e itaia*
diba⁴⁹[-dia]_i [una tau ese]_j [sisia]_k e
henao-a
know-3PL DEM.DIST.SG man ERG dog 3.R steal-3SG
‘they realised that the man had stolen the dog’
e roha lao da e ita-i-a
3.R look AND VADA 3.R see-TR-3SG
‘they looked over and saw him’
- b. ES: *be idia na hari tau na e haviava*
bena [idia na]_i hari [tau na]_j
then 3PL SPKR.ASYM HARI man SPKR.ASYM
e havi-a=va
3.R chase-3SG=PST/HAB
‘then they started to chase the man’
- c. OK: *mm*
- d. ES: *ela hari- una be e heau ela, hari tau na hekurenai evasi itaia, ani?*
[una be]_i e heau e la
DEM.DIST.SG ADDR.(A)SYM 3.R run 3.R go
hari [tau na]_j hekure-na=ai e vasi ita-i-a ani
HARI man SPKR.ASYM lie-3SG=LOC 3.R move see-TR-3SG Q
‘they went- they ran over and saw the man lying down, right?’
- e. OK: *mm*
- f. ES: *hari sisiasisia be magumagu lalonai e udaia*
hari [sisia~sisia be]_k magu~magu lalo-na=ai
HARI RDP~dog ADDR.(A)SYM RDP~fence inside-3SG=LOC
e uda-i-a
3.R put-TR-3SG
‘he had put the little dog inside the little fence’
(SY1-STORY003-20191027_1, 03:11-03:51)

5.2 Engagement, information packaging, and attention in common ground management

The seemingly disparate engagement and information structural uses of *na* and *be* are both concerned with tracking the mental status of discourse entities between interlocutors, and provide a formal link between these two grammatical domains

which, in interactional discourse, have similar pragmatic functions. As Gipper (2015, p. 229) notes, “linguistic items conveying a complex epistemic perspective can develop a variety of interactional functions... as speakers constantly negotiate their relative epistemic perspective on the information they are talking about”.

For analysis’ sake, the engagement and information structural functions of *na* and *be* were examined separately, however the goal of this discussion is not to suggest that these categories should be considered separately. Rather, §4.3-4 and §5.1 aim to exemplify the range of pragmatic contexts in which Motu speakers use *na* and *be*. The two aspects of meaning of *na* and *be* in marking engagement and information structure can be seen as having overlapping communicative and interactional goals. The examples discussed in §5.1 indicate that *na* and *be* are often used to signal shifts in the discourse when the intersubjective coordination between speaker and addressee has to be re-established. §5.2.1 illustrates how Motu speakers mobilise pragmatic extensions of these optional engagement markers to achieve localised communicative goals relating to attentional alignment and discourse cohesion.

5.2.1 The relevance of the interactional domain of attention

As shown in Chapter 4, *na* and *be* encode the relative mental accessibility of discourse referents in the minds of speech participants based on the speaker’s assumptions. This designation of engagement values in Motu involves two related but distinct cognitive domains – knowledge and attention. Some of the contexts of use for *na* and *be* described in §4.3-4 are more clearly based on knowledge (a)symmetries related to Kamio’s (1997) “territory of information” which is concerned with information storage, memory, and pre-established rights to knowledge. This can be seen in (4.14), reproduced below, in which OK uses *be* in (4.14a) and (4.14e) to signal his addressee’s (MB) claim to knowledge regarding her own village, rather than MB’s attentional access to her village in the immediate environment of the speech act.

Likewise, MB's use of *na* in (4.14f) indicates her right to knowledge regarding the situation in her village rather than non-shared attentional access to a perceptual referent. Additional uses of *na* and *be* which are more closely based on evocations of access to knowledge or memory between interlocutors include the distribution of the markers in question-answer responses (§4.4) and the use of *na* in stance-taking expressions, as in (4.10g).

- (4.14) a. OK: *umui hanua be ekara laloma kahanai*
umui hanua be ekara laloma kaha-na=ai
 2PL village ADDR.(A)SYM looks.like inside side-3SG=LOC
 ‘your village looks like it’s in an inland area’
- b. DT: *biru bona-*
 ‘garden and-’
- c. OK: *bo vareaimu*
 ‘you can go in’
- d. ES: *dounu mai edia uma kara gabudia*
 dounu mai e-dia uma kara gabu-dia
 still with AL.POSS.NCOM-3PL garden do place-3PL
 ‘they still have somewhere to make their gardens’
- e. OK: *umui be doini mai emui uma kara gabudia*
umui be doini mai
 2PL ADDR.(A)SYM still with
 e-mui uma kara gabu-dia
 AL.POSS.NCOM-2PL garden do place-3PL
 ‘you still have somewhere to make your gardens’
- f. MB: *momokani to kerere gabuna na, ah, da eme hutuma*
 momokani to **kerere gabu-na na**
 true but wrong situation-3SG SPKR.ASYM
 da e=me hutuma
 DA 3.R=ME many
 ‘that’s true, but the problem is that the population grew’
- (SY1-CONV001-20190825, 05:09-05:25)

Conversely, other occurrences of *na* and *be* encode mental access to referents that are available to interlocutors within the here-and-now of the speech context and play a central role in the online management of attention during the dynamic unfolding of discourse. Motu speakers utilise the attention organising function of these engagement markers as a pragmatic solution for managing intersubjectivity in a wider range of communicative settings.

well as indicating that *tau* will have ongoing relevance in the following clauses. This use of *na* in marking a nominal argument in the first utterance of a discourse can also be seen in examples (4.6a) and (5.3a) and serves to establish joint attention for the subsequent talk.

Once reference on *tau* is established in (5.6a) using *na*, *tau* is referred to simply by indexation with the preverbal subject marker, *e* ‘3.R’, and described to be breaking specific coconuts (*niu*) in the following clauses (5.6b-j). The *niu* ‘coconut’ are referenced by lexical NPs with ordinal numerals and indexed by the non-obligatory 3SG object suffix on every verb to identify the individuated coconuts.

Although *tau* ‘man’ continues to be the A argument in (5.6k), a different type of event is expressed where *tau* acts on a newly introduced way of viewing the coconuts, namely as a collective set, *gaudia* ‘thing-3PL’, that he puts into a basket. ES assumes DT is not currently attending to the coconuts as a group, so signals this by marking *gaudia* with *na*. This use of the speaker-asymmetric marker also indicates a switch in discourse topic that requires attentional re-alignment on the part of the addressee to the set of coconuts.

The topic changes again in (5.6l) to the water from the coconuts indicated by the possessive NP ‘its water’, which does not appear with an overt nominal possessor. By marking this NP with *be*⁵¹, MB indicates that *ranuna* belongs to a referent that the speaker assumes the addressee has access to, i.e. the collective of coconuts, *gaudia*, foregrounded in the immediately preceding clause. This example illustrates the overlapping ways in which *na* and *be* may be employed to encode engagement values as well as structure information in discourse. Although the distinction between the two functions seems rather nebulous, speakers systematically make use of the pragmatic

⁵¹ As discussed in §4.3.2, *be* is often used to mark subsets of a contextually inferable set, see example (4.13).

implicature associated with these related meanings to manipulate attention and create discourse cohesion.

- (5.6) a. ES: *tau ta na niu-*
tau ta na niu-
man one SPKR.ASYM coconut
‘there is a man, coconut-’
- b. DT: *e kakasiamu?*
‘is he grating it?’
- c. ES: *lasi, niu e polaiamu*
‘no, he is breaking the coconut (shell) in half’
- d. DT: *io, e hamakohiamu*
‘okay, he is breaking it’
- e. ES: *niu e hamakohiamu*
‘he is breaking the coconut’
- f. MB: *kohiamu, mm, da iharuana e karaiamu*
‘breaking it, he is doing something to the second one’
- g. ES: *niu iharuana e hamakohiamu*
‘he is breaking the second coconut’
- h. DT: *io, okay, ia e hamakohia*
yes, okay, he is breaking it’
- i. ES: *mm*
- j. MB: *da ihatoina da ma e abia*
‘he is taking the third one’
- k. ES: *be gaudia na hari bosea lalonai e udamu*
bena **gau-dia na** hari bosea lalo-na=ai
then thing-3PL SPKR.ASYM HARI basket in-3SG=LOC
e uda=mu
3.R put=PROG
‘then he is putting the things in the basket’
- l. MB: *ranuna be una elaomu disi lalonai*
ranu-na be una e lao=mu
water-3SG ADDR.(A)SYM DEM.DIST.SG 3.R go=PROG
disi lalo-na=ai
dish in-3SG=LOC
‘the water is going into the dish’

(SY1-VIDNR004-20191211, 12:45-13:21)

While the extended use of *na* highlights and establishes shared reference on the continuing relevance of discourse participants that the speaker assumes are not in the addressee's attentional field at the time of the utterance, the primary function of *be* in wider discourse appears to be connecting a referent with prior information. In (5.6l) and (5.5f), the use of *be* anchors access to the referent within the perspective of the addressee, thus signalling a link to a mentally accessible referent. For Givón (1995, p. 346), this expression of connectivity or grounding of information to previously established nodes in the addressee's network of mental representations facilitates discourse coherence.

Speakers do appear to make use of *be* as a resource for pointing to the connectedness of information to aid the online processing and comprehension of new propositional content by situating it within prior and salient information. This is illustrated by the occurrence of *be* in elaborative constructions (see 5.4b), agreeing judgements (4.13c), and in clauses that provide additional information regarding previously introduced referents, such as locational or adjectival descriptions (e.g., 4.11). However, despite this anaphoric grounding function, *be* is still a marked form and its use also draws attention to the information under its scope and may be used to signal topicality, as seen in (5.3c).

Similarly, in (5.7a), *sisia* 'dog' is introduced into the discourse as the O argument and marked as indefinite by *ta* 'one' while *manu* 'bird' is the A argument and simply referenced by verbal indexation, since it has previously been established as the entity most crucially involved in the action of this stretch of discourse until (5.7c). In (5.7d), the discourse topic switches to *sisia* 'dog' and is marked by *be* to ground this reference within the referential frame established by the earlier mention of *sisia*, which the speaker assumes is still salient in the mind of the addressee. In the following

clause, (5.7e), *sisia* is maintained as the discourse topic and referred to without an overt nominal expression.

- (5.7) a. ES: *sisia ta au badinai e rohodia hanai*
 sisia ta au badi-na=ai e roho-dia hanai
 dog one tree near-3SG=LOC 3.R fly-3PL over
 ‘he (i.e. the bird) flew over a dog (that was) near the tree’
- b. MB: *mm, io, bena ela-*
 ‘yes, then he went-’
- c. ES: *e- manu bena ela au riginai helai*
 manu bena e la au rigi-na=ai helai
 bird then 3.R go tree branch-3SG=LOC sit
 ‘then the bird went and sat on a tree branch’
- d. MB: *sisia be-*
 ‘the dog-’
- e. ES: *sisia be e rohaisi ia e itaiava*
 sisia be e roha isi ia e ita-i-a=va
 dog ADDR.(A)SYM 3.R look up 3SG 3.R see-TR-3SG=PST/HAB
 ‘the dog looked up and saw him (the bird)’
- f. ES: *manu e itaiava*
 manu e ita-i-a=va
 bird 3.R see-TR-3SG=PST/HAB
 ‘he was staring at the bird’
- (SY1-STORY001-20190901_1, 01:29-01:46)

Na and *be* in these wider uses appear to correlate with the two cognitive dimensions of topicality suggested by Givón (1995, p. 78) in which thematically important referents tend to be anaphorically accessible (indicated by *be*) and/or cataphorically persistent (*na*). These two properties are proposed as heuristics for measuring referential continuity, although in opposite textual directions. So, whereas *be* links the marked referent with a cognitively accessible antecedent, *na* signals attentional activation and/or recurrence in the upcoming discourse. This can be seen in (5.8) which

represents the entire description of a storyboard stimulus⁵², the beginning of which is shown in (5.3) and discussed in §5.1.1.

In (5.8d), *na* is used to mark the re-establishment of *mero* ‘boy’ as the topical referent even though the type of discourse transition conveyed by this clause is similar to that found in (5.8c) where *sisia* is re-introduced and marked by *be*. The use of *be* in (5.8c) indicates co-referentiality with *sisia* in (5.8a) and signals a shift in topic. However, in (5.8d), despite the fact that *mero* is an equally salient and accessible referent that has also very recently been the discourse topic, *na* is employed, rather than *be*, to indicate its topicality which is then maintained for the rest of the description. In (5.8e-g), *mero* ‘boy’ is only referenced by verbal indexation, even in (5.8e) where *sisia* ‘dog’ is the A argument and outside of this context might be expected to be the default topic.

However, in this clause following (5.8d) where *mero* has been established as a persistent discourse topic by the use of *na*, the standard subject-topic relation does not hold and *sisia* is not the topic. Note the use of the optional marker *ese* to explicitly encode the agentivity of *sisia*. Thus, it appears that when speakers shift the discourse topic to an already introduced referent, they make use of the core engagement meaning and pragmatic implicature of *na* and *be* to manage reference by signalling either anaphoric continuity or cataphoric assertion. Impressionistically, it seems that nominal expressions that are marked by *na* tend to persist as the coherence element further into the discourse than topics introduced by *be*.

⁵² Task 16 from the Questionnaire for Understanding Information Structure (Skopeteas et al., 2006)

- (5.8) a. *sisia ta na meromero ta e havaiava*
sisia ta na mero~mero ta e hava-i-a=va
 dog one SPKR.ASYM RDP~boy one 3.R chase-TR-3SG=PST/HAB
 ‘a dog is chasing a little boy’
- b. *mero na e keto au na ta e roho hanai*
mero na e keto au na ta e roho hanai
 boy SPKR.ASYM 3.R fall tree REL one 3.R jump over
 ‘the boy jumped over a tree that had fallen’
- c. *sisia be ia murina amo e heau e laova*
sisia be ia muri-na amo e heau e lao=va
 dog ADDR.(A)SYM 3SG behind-3SG from 3.R run 3.R go=PST/HAB
 ‘the dog was running behind him’
- d. *mero na e roha hegiro sisia e itaia*
mero na e roha he-giro sisia e ita-i-a
 boy SPKR.ASYM 3.R look DETR-turn dog 3.R see-TR-3SG
 ‘the boy looked behind him and saw the dog’
- e. *sisia ese e havaiava*
 sisia ese e hava-i-a=va
 dog ERG 3.R chase-TR-3SG=PST/HAB
 ‘the dog was chasing him’
- f. *vairainai au giginā na se itaia bona*
 vairai-na=ai au gigi-na na asine ita-i-a bona
 front-3SG=LOC tree stand-3SG REL 3.R.NEG see-TR-3SG and
 ‘he didn’t see the tree that was standing in front of him and’
- g. *madi eha tatakau au ai*
 madi e=ha tatakau au =ai
 poor 3.R=HA bump tree =LOC
 ‘the poor thing bumped into a tree’

(SY1-QUIS003-20190901, 01:50-02:15)

Although the engagement, information structural and attentional considerations relating to the uses of *na* and *be* provide a satisfactory explanation for the majority of their occurrences, there do appear to be speaker-individual differences in their use. In (5.9c) and (5.9d), OK and ES’s overlapping utterances contain identical propositional

content expressed at the exact same time with both speakers having equal access to the stimuli being discussed. However, whereas OK uses *na* to mark the re-introduction of *sisia* ‘dog’ in (5.9c), the same referent is not marked by ES in the overlapping segment of speech shown in square brackets in (5.9d). In the subsequent turns (5.9e-f), ES finishes the description of the story with *kekeni* ‘the girl’ as the discourse topic which may account for why in (5.9d) ES doesn’t use *na* with *sisia*⁵³. Nevertheless, what this example does highlight is the subjective evaluations that are central to the role of *na* and *be* in managing intersubjectivity in interactive contexts.

⁵³ It may be that if OK had continued the description rather than ES, the dog would have become the discourse topic, although this is purely speculative.

- (5.9) a. OK: *una tau mahuta lalonai bena una kekeni kekeni-*
 una tau mahuta lalo-na=ai
 DEM.DIST.SG man sleep in-3SG=LOC
 bena una kekeni~kekeni
 then DEM.DIST.SG RDP~girl
 ‘while the man was sleeping, the girl-’
- b. ES: *kekeni ela da-*
 kekeni e la da
 girl 3.R go VADA
 ‘the girl went-’
- c. OK: *ela ena [sisia na eha abia lou⁵⁴]*
 e la e-na **sisia na**
 3.R go AL.POSS.NCOM-3SG dog SPKR.ASYM
 e=ha abi-a lou
 3.R=HA take-3SG return
 ‘she went and took back her dog’
- d. ES: *[sisia da eha abiamu], e abia oho (.)*
sisia da e=ha abi-a=mu e abi-a oho
 dog VADA 3.R=HA take-3SG=PROG 3.R take-3SG away
 ‘she’s taking her dog, she took it away’
- e. ES: *elou ema hari bamona haida ida (.)*
 ‘when she went back, with her friends (.)’
- f. ES: *lahilahi hegerehegerena ta e karaia*
 ‘they made what looks like a small fire’
- (SY1-STORY003-20191027_1, 03:53-04:11)

5.3 Conclusion

The varied discourse functions of *na* and *be* demonstrate the ways in which speakers of Motu make use of pragmatic extensions related to the encoding of attentional

⁵⁴ In (5.10), the square brackets [...] in the Motu orthography line represents overlapping segments, further indicated by the indentation of the overlapping segment (5.9d) to match the overlapping segment in (5.9c) and the notation (.) indicates silences equal to or greater than 0.5s.

access to achieve contextual communicative and interactional goals in dynamic discourse settings. This section has discussed the attested uses of *na* and *be* which cannot be exhaustively accounted for in terms of relative mental accessibility but, rather, reveal how Motu speakers mobilise the optional use of *na* and *be* as a pragmatic solution in various speech settings to direct their interlocutor's attention and create discourse cohesion. The discussion in §5.2 argued that the information structural effects of *na* and *be* (§5.1) arise due to a conventionalisation of the attentional function associated with the engagement meaning of these markers. Thus, this Motu data provides explicit links between information structural motivations and the use of engagement markers which raises the question of how and/or whether to include discussion of both typological domains in current categorical understandings of these constructions which lie at the intersection of grammatical form, semantic meaning, and pragmatic context.

Chapter 6

Conclusions and further research

In addressing the research questions set out in Chapter 1, this study has discussed the function of Motu *na* and *be* in various discursive settings to show that:

- (i) These markers formally encode meanings related to the distribution of mental access between interlocutors from the perspective of the speaker in a given speech context. Chapter 4 demonstrates that *na* indicates speaker-asymmetric access, whereas *be* signals an addressee-(a)symmetric orientation of the information under its scope;
- (ii) The encoded meanings of these markers may be utilised by speakers to organise discourse on a more global level and induce pragmatic effects related to information structure and referent-tracking (§5.1), and;
- (iii) These findings suggest that engagement and information structure can have a joint role in coordinating and managing attention between interlocutors in interactional discourse. *Na* and *be* are mobilised by Motu speakers as resources for conveying information that has the communicative goal of affecting the addressee's cognitive state and the common ground between interlocutors.

The Motu language data used to answer these questions provide initial evidence for an engagement system in an Oceanic language and adds to the strikingly little work done on discourse strategies and/or information structure within this otherwise comprehensively studied and described language family, as noted by Schokkin (2014,

p. 110). Furthermore, the Motu data raises questions regarding the ways in which we talk about intersubjectivity in language. The various grammatical and discourse uses of *na* and *be* discussed in this thesis, which relate to both engagement and information structural functions, illustrate how “boundaries between science are often accidental, arbitrary, [and/or] of a historical nature, while the object of study – the mind – is one and undivided” (Kibrik, 2011, p. 16). The results of this study contribute to a growing number of empirical investigations which discuss the role of epistemic categories in the intersubjective process of organising reference in discourse (see Behrens, 2012; Gipper, 2011, 2014; Grzech, 2017; Palakurthy, 2017; Yliniemi, 2016a, 2016b).

6.1 Typological implications and further research

As noted at the beginning of this thesis, the ways in which humans coordinate attention and/or knowledge in interactional discourse settings concern two key notions – intersubjectivity and referentiality. These communicative features are not mutually exclusive as shown by the discussion of Motu *na* and *be* in Chapter 4-5 which demonstrates that intersubjective forms may have referential functions. Motu speakers use these engagement markers to aid their addressee’s identification of a specific discourse entity that will be particularly salient in the upcoming talk. Thus, the use of *na* and *be* appears to be conditioned by referential considerations of attentional alignment.

In contrast, Bergqvist & Knuchel (2019, p. 658), who note the lack of obligatoriness in engagement marking cross-linguistically, suggest that the functional motivation for engagement is based on stance, such that “only those utterances that feature an evaluation of an event and/or positioning of the speaker with respect to that event are candidates for engagement marking.” Although stance and attentional alignment are not unrelated (see Du Bois, 2007, p. 159 and references therein), the distribution of *na* and *be* does not indicate that their primary function is to signal the speaker’s

involvement, and estimation of the addressee's stance, with respect to a particular entity.

While there are more stance-like uses of *na* and *be* (see §5.2.1), the attention-directing and discourse-regulating uses of these markers make no evaluative epistemic assertion regarding the information under their scope beyond indicating its discourse relevance. Thus, the motivating factor for the use of engagement markers in Motu can be better characterised as attentional alignment. However, this claim requires further substantiation to understand the relevant discourse conditions for the use/non-use of *na* and *be*, including a quantitative analysis using additional data from more varied speech genres. A more comprehensive investigation should also contain a detailed study of the numerous devices involved in the composite phenomenon of discourse cohesion and common ground management in Motu within which the functions of *na* and *be* are situated.

The source constructions and developmental mechanisms that have produced engagement markers *na* and *be* in Motu may also shed light on the language-specific patterns of inference and conventionalisation associated with their synchronic use. Bergqvist and Knuchel (2019) note the divergent semantic features found in engagement forms that reflect their heterogeneous origins. Thus, the close relationship between stance and engagement may be limited to verbal forms such as those found in Kogi (Bergqvist, 2016) and Murrinpatha (Mansfield, 2019). The engagement markers that appear to have grammaticalised from nominal elements, such as demonstratives or definite markers as in Coastal Marind (Olsson, 2019) and Ku Waru (Rumsey, 2019), seem to retain functions more closely related to reference management. For *na* and *be*, there are various potential diachronic sources, especially for *na* which is a pervasive form in Oceanic languages. A similar form has been reported as having topicalising or

referent tracking functions in other Periphery Papuan Tip languages⁵⁵. One potential origin for Motu *na* is a demonstrative form. As shown in Table 3.4, while the initial vowel of the preposed demonstratives changes based on distance contrasts, the second syllable is *-na*. As discussed in Chapter 2, demonstratives play a significant role in managing intersubjectivity, and a grammaticalisation pathway from demonstrative to engagement marker has been demonstrated for other languages in the New Guinea linguistic area, e.g., Abui and Coastal Marind. However, there are other candidates for the source of *na*, including relativiser *na* (§3.2.8) which appears to be related to the third person singular relational/possessive suffix. The origin of *be* is even less clear with no promising cognate forms reported in other closely related languages or obvious sources in contemporary Motu.

Any typological model of engagement should be able to account for both the intersubjective and referential meanings conveyed by these markers. This study of *na* and *be* raises numerous further questions about the engagement and information packaging system in Motu as well as the cross-linguistic investigation of these grammatical domains.

⁵⁵ *(Au)ŋa* is glossed as ‘TOP’ in Jones’s (1998) grammar of Mekeo but not discussed in very much further detail. Two topicalisers are described for Sinaugoro in Tauberschmidt (1999, pp. 43-45), *tu* and *ne*, which may occur together with the ergative marker *-na*. There is also a *na* form described as a ‘transitive subject marker’ in Hula (Pat, 1996).

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Appendix A

Recordings used in this study

The following recordings were made and transcribed in Canberra, Australia with four speakers of Motu – ES, DT, MB, and OK – and collected by Stephanie Yam and Huade Huang. In the thesis, these recordings are prefixed by ‘SY1’ (the planned collection identifier when archived in PARADISEC) and represent spontaneous speech. Reference codes that are prefixed by ‘MEU1’ were collected in a 2018 Field Methods class with two speakers – ES and DT – and are mostly elicited speech. The earlier recordings have been archived and they along with their metadata can be found at: <https://catalog.paradisec.org.au/collections/MEU1>.

Reference code	Speakers	Description	Duration
CONV001-20190825	MB, OK, ES, DT	Conversation about going back to PNG to visit family.	05:38
PICMAT001-20191013	ES, DT	Picture matching task based on Put Project (Bowerman et al., 2004). ES is narrating videos and DT has corresponding stills.	04:00
QUIS003-20190901	ES	Description of Task 16 from the Questionnaire for Understanding Information Structure (Skopeteas et al., 2006).	03:18
STORY001-20190901_1	MB, ES	Recording of the Jackal and Crow story task (Carroll et al., 2011). Both speakers can see the picture stimuli.	06:20
STORY001-20190901_2	MB, ES	Continuation of Jackal and Crow story task (Carroll et al., 2011).	06:42

STORY001-20190901_3	MB, OK, ES	Retelling of the Jackal and Crow story task (Carroll et al., 2011) by ES and MB to OK who has not and cannot see the picture stimuli. OK is then asked to repeat the story he just heard.	03:48
STORY002-20190901_2	MB, OK, ES	Retelling of the <i>Frog story</i> (Mayer, 1969) by MB and OK to ES who has not and cannot see the picture stimuli.	09:33
STORY003-20191027_1	ES, OK	Recording of ES and OK describing the <i>Monster Story</i> (O'Shannessy, 2003). Both speakers can see the picture stimuli.	04:33
STORY003-20191027_2	ES, OK	Summary of the <i>Monster Story</i> (O'Shannessy, 2003).	01:13
VIDNR001-20190922	ES	Description of copra cutting competition video (filmed by Claudia Wegener, n.d.).	07:31
VIDNR002-20190922	ES	Description of coconut breaking video (filmed by Danielle Barth, 2010).	01:36
VIDNR003-20191013	DT, ES	Description of videos from the Staged Events stimuli set (van Staden, 2001). Both speakers can see the stimuli.	13:24
VIDNR004-20191211	MB, ES, DT	Description of food preparation and processing videos (filmed by Claudia Wegener in Savo, n.d.) and picture matching task. MB and ES can both see and are describing the videos while DT has corresponding stills. Speakers were asked to work cooperatively to find the picture that best corresponds the video.	35:18

Appendix B

Selected Motu texts

This appendix presents two interlinearised Motu texts from SY1-STORY001-20190901_3 and SY1-VIDNR004-20191211. Each line in these texts represents an intonation unit.

B1. Jackal and Crow story task

This is the parsed and glossed transcript from STORY001-20190901_3 where ES and MB tell the Jackal and Crow story that they have previously worked out in STORY001-20190901_1 and STORY001-20190901_2 to OK, who has not seen the picture stimuli or heard the story before in (1)-(74). OK is then asked to repeat the story he has just been told without looking at the pictures in (74)-(110).

- (1) ES: *manu ta*
manu ta
bird one
'one bird'
- (2) ES: *gwarume*
gwarume
fish
'fish'
- (3) ES: *e itaia bena e henaao*
e ita-i-a bena e henaao-a
3.R see-TR-3SG then 3.R steal-3SG
'he saw and stole it'
- (4) ES: *danu-*
danu
and
'and-'
- (5) ES: *beno e roho laia*

- bena e roho-lai-a
 then 3.R jump-APPL-3SG
 'and flew away with it'
- (6) OK: *laulau do baina itaia*
 laulau do baina ita-i-a
 picture yet 1SG.IRR see-TR-3SG
 'can I look at the picture yet?'
- (7) MB: *lasi oi na basio itamu*
 lasi oi na basio ita=mu
 no 2SG SPKR.ASYM 2FUT.NEG see=PROG
 'no you can't look at it'
- (8) ES: *lasi oi na basio itamu*
 lasi oi na basio ita=mu
 no 2SG SPKR.ASYM 2FUT.NEG see=PROG
 'no you can't look at it'
- (9) OK: ah
- (10) ES: mm
- (11) ES: *manu na hari gwarume na*
 manu na hari gwarume na
 bird SPKR.ASYM hari fish SPKR.ASYM
 'the bird (picked up) the fish'
- (12) ES: *e abia isi bena de roho laia*
 e abi-a isi bena da e roho-lai-a
 3.R pick-3SG up then VADA 3.R fly-APPL-3SG
 'he picked it up and flew away with it'
- (13) ES: *e roho ela au ta*
 e roho e la au ta
 3.R fly 3.R go tree one
 'he flew to a tree'
- (14) ES: *daena amo e roho hanai*
 dae-na amo e roho hanai
 up-3SG.POSS with 3.R fly over

‘then flew over (the tree) with it’

(15) ES: *una au henunai be sisia ta gini*

una au henu-na=ai be

DEM.DIST.SG tree below-3SG.POSS=LOC ADDR.(A)SYM

sisia ta gini

dog one stand

‘under that tree there was a dog standing there’

(16) ES: *ah- sisia danu manu*

sisia danu manu

dog also bird

‘the dog also, bird’

(17) ES: *e roho- mai- mai gwaru- uduna mai gwarumena ida e roho hanaiva*

udu-na mai gwarume-na ida e roho hanai=va

mouth-3SG.POSS with fish-3SG.POSS with 3.R fly over=PST/HAB

‘with a fish in its mouth, it was flying over’

(18) MB: *e-*

(19) ES: *um, e itaia bena da ekara gwarume e gahusiava na heto*

e ita-i-a bena da e kara gwarume

3.R see-TR-3SG then VADA 3.R do fish

e gahusi-a=va na heto

3.R want-3SG=PST/HAB SPKR.ASYM like

‘the dog saw the it (bird flying with the fish) and looked like he wanted the fish’

(20) OK: *sisia uduna mai gwarumena?*

sisia udu-na mai gwarume-na

dog mouth-3SG.POSS with fish-3SG.POSS

‘does the dog's mouth have a fish in it?’

(21) ES: *lasi sisia uduna asi gwarumena*

lasi sisia udu-na asi gwarume-na

no dog mouth-3SG.POSS NEG fish-3SG.POSS

no, the dog's mouth had no fish’

(22) MB: *ia na-*

(23) OK: *to ia manu na e itaia, manu na e roho hanaiva*

to ia manu na e ita-i-a
 but 3SG bird SPKR.ASYM 3.R see-TR-3SG
 manu na e roho hanai=va
 bird SPKR.ASYM 3.R fly above=PST/HAB
 ‘but he saw the bird, the bird is flying over’

(24) ES: *gwarume tamona manu*

gwarume tamona manu
 fish one bird
 ‘one fish, bird’

(25) ES: *manu e roho hanaiva uduna mai gwarumena*

manu e roho hanai=va
 bird 3.R fly above=PST/HAB
 udu-na mai gwarume-na
 mouth-3SG.POSS with fish-3SG.POSS
 ‘the bird was flying over with fish in its mouth’

(26) MB: mm

(27) ES: *sisia- manu bena ela hari*

manu bena e la hari
 bird then 3.R go HARI
 ‘dog- bird then went’

(28) ES: *au riginai e helai kau*

au rigi-na=ai e helai kau
 tree branch-3SG.POSS=LOC 3.R sit on
 ‘sat on the branch of the tree’

(29) ES: *gwarume do unu-*

gwarume do unu
 fish still DEM.DIST.PL
 ‘the fish still-’

(30) MB: *udunai*

udu-na=ai
 mouth-3SG.POSS=LOC
 ‘in its mouth’

- (31) ES: *udunai, mm*
 udu-na=ai
 mouth-3SG.POSS=LOC
 ‘in its mouth’
- (32) OK: *udunai, ah-huh*
 udu-na=ai
 mouth-3SG.POSS=LOC
 ‘in its mouth’
- (33) ES: *sisia be au henunai gini e roha isiva gwarume*
 sisia be au henu-na=ai gini
 dog ADDR.(A)SYM tree below-3SG.POSS=LOC stand
 e roha isi=va gwarume
 3.R look up=PST/HAB fish
 ‘the dog was standing under the tree looking up, the fish’
- (34) ES: *e- manu gwarume ida e itadia bena e gahusiava*
 manu gwarume ida e ita-dia
 bird fish with 3.R see-3PL
 bena e gahusi-a=va
 then 3.R want-3SG=PST/HAB
 ‘the bird with the fish, he saw them and became jealous’
- (35) ES: *e uramu una maga- e- gwarume na ia ese bema ania*
 e ura=mu gwarume na ia ese
 3.R want=PROG fish SPKR.ASYM 3SG ERG
 bema ani-a
 3.DEO eat-3SG
 ‘wishing that he could eat the fish’
- (36) ES: *ah*
- (37) ES: *hari malana danu ekara ranu e dihova na heto e gahusiava*
 hari mala-na danu e kara ranu e diho=va
 HARI tongue-3SG.POSS also 3.R do water 3.R down=PST/HAB
 na heto e gahusi-a=va
 SPKR.ASYM like 3.R want-3SG=PST/HAB

‘it looked like there was water dripping from his tongue, he wanted it’

(38) MB: *e-*

(39) ES: *manu be, ah, rigi lata-na=ai helai*

manu be rigi lata-na=ai helai
bird ADDR.(A)SYM branch top-3SG.POSS=LOC sit
‘the bird was sitting on the branch’

(40) ES: *ena ede evasi kara toma*

ena ede e=vasi kara toma
then which 3.R=VASI do PURP
‘somehow’

(41) ES: *hari gwarume na uduna amo*

hari gwarume na udu-na amo
hari fish SPKR.ASYM mouth-3SG.POSS from
‘the fish from his mouth’

(42) ES: *e moru*

e moru
3.R fall
‘it fell out’

(43) ES: *sisia*

sisia
dog
‘the dog’

(44) ES: *au henunai gini uduna evasi ahagaia*

au henu-na=ai gini udu-na
tree below-3SG.POSS=LOC stand mouth-3SG.POSS
e=vasi a-haga-i-a
3.R=VASI CAUS-open-TR-3SG
‘standing under the tree, he just opened his mouth’

(45) ES: *gwarume evasi gobe-a udunai*

gwarume e=vasi gobe-a udu-na=ai
fish 3.R=VASI catch-3SG mouth-3SG.POSS=LOC
‘he caught the fish in his mouth’

- (46) ES: *bona da e helai*
 bona da e helai
 then VADA 3.R sit
 ‘and then was sitting down’
- (47) ES: *hari gwarume na da ia ese aniani bona eania waitani*
 hari gwarume na da ia ese aniani bona
 HARI fish SPKR.ASYM VADA 3SG ERG food and
 e ani-a waitani
 3.R eat-3SG complete
 ‘he ate and ate until he finished the fish’
- (48) ES: *bona da*
 bona da
 then VADA
 ‘and then’
- (49) ES: *mai moalena ida helai, ani?*
 mai moale-na ida helai ani
 with happy-3SG.POSS with sit Q
 ‘he was happily sitting there, wasn't he?’
- (50) MB: *moale*
 moale
 happy
 ‘happy’
- (51) ES: *ah, manu be madi au riginai helai be e roha dobimu*
 manu be madi au rigi-na=ai helai
 bird ADDR.(A)SYM poor tree branch-3SG.POSS=LOC sit
 be e roha dobi=mu
 then 3.R look down=PROG
 ‘the poor bird is sitting on the branch of the tree looking down’
- (52) ES: *lalonai hisihisiva badina ana gwarume be una-*
 lalo-na=ai hisi~hisi=va
 insides-3SG.POSS=LOC RDP~pain=PST/HAB
 badina a-na gwarume be una

- because AL.POSS.COM-3SG.POSS fish then DEM.DIST.SG
 ‘painfully because his fish’
- (53) ES: *e hamorua sisia ese da e ania*
 e ha-moru-a sisia ese da e ani-a
 3.R CAUS-fall-3SG dog ERG VADA 3.R eat-3SG
 ‘he dropped it and the dog ate it’
- (54) MB: *e hamorua*
 e ha-moru-a
 3.R CAUS-fall-3SG
 ‘he dropped it’
- (55) OK: [laughing]
- (56) MB: *de ani*
 da e ani
 VADA 3.R eat
 ‘he ate’
- (57) MB: [laughing]
- (58) OK: *au- una au be vaivai?*
 una au be vaivai
 DEM.DIST.SG tree ADDR.(A)SYM mango.tree
 ‘is that a mango tree?’
- (59) MB: *una au ta*
 una au ta
 DEM.DIST.SG tree one
 ‘it's any tree’
- (60) ES: *be da au ta*
 be da au ta
 then VADA tree one
 ‘it can be any tree’
- (61) OK: *io, to au be mai*
 io to au be mai
 yes but tree ADDR.(A)SYM ?
 ‘yes, but is that tree’

- (62) OK: *mai danudia?*
 mai danu-dia
 with unspecified.thing-3PL.POSS
 ‘what does it have?’
- (63) ES: *oh, au ko- au- au mai rigina*
 au mai rigi-na
 tree with branch-3SG.POSS
 ‘the tree has branches’
- (64) MB: *rigina*
 rigi-na
 branch-3SG.POSS
 ‘branches’
- (65) OK: *io, una be au huahua?*
 io una be au huahua
 yes DEM.DIST.SG ADDR.(A)SYM tree fruit
 ‘yes, is it a young tree?’
- (66) MB: *mm, mai rigina*
 mai rigi-na
 with branch-3SG.POSS
 ‘it has branches’
- (67) OK: *au hua-*
 au
 tree
 ‘tree-’
- (68) ES: *da au-*
 da au
 VADA tree
 ‘tree’
- (69) MB: *mm*
- (70) OK: *mai rigina*
 mai rigi-na
 with branch-3SG.POSS

‘it has branches’

(71) ES: *au ta rigin- mai rigina, mm*

au ta mai rigi-na

tree one with branch-3SG.POSS

‘the tree has branches’

(72) MB: *io*

io

yes

‘yes’

(73) ES: *mm*

(74) OK: *mania gwauraia lou*

mania gwaura-i-a lou

please say-TR-3SG again

‘please say it again’

(75) ES: *io*

io

yes

‘yes’

(76) MB: [laughing]

(77) OK: *ah, okay, io, okay*

(78) OK: *um*

(79) OK: *okay danu*

‘okay’

(80) OK: *manu ta na e roho e-*

manu ta na e roho

bird one SPKR.ASYM 3.R fly

‘a bird was flying’

(81) OK: *e roho hanaimu uduna na mai gwarumena ta*

e roho hanai=mu

3.R fly above=PROG

udu-na na mai gwarume-na ta

mouth-3SG.POSS SPKR.ASYM with fish-3SG.POSS one

‘the bird is flying over with a fish in its mouth’

(82) OK: *gwaru- udunai na gwarume*

udu-na=ai na gwarume

mouth-3SG.POSS=LOC SPKR.ASYM fish

‘it's got a fish in its mouth’

(83) OK: *e roho hanaimu*

e roho hanai=mu

3.R fly above=PROG

‘flying over’

(84) OK: *benā e la*

benā e la

then 3.R go

‘and he went’

(85) OK: *au huahua latanai*

au huahua lata-na=ai

tree fruit top-3SG.POSS=LOC

‘onto the young tree’

(86) OK: *um*

(87) OK: *de la helai*

da e la helai

VADA 3.R go sit

‘then he sat down’

(88) OK: *be- be una hua- henunai na sisia ta*

be una henu-na=ai na sisia ta

then DEM.DIST.SG below-3SG.POSS=LOC SPKR.ASYM dog one

‘and so under that young tree is a dog’

(89) OK: *oh okay do-*

‘oh okay, wait’

(90) OK: *okay manu na e rohomu uduna mai gwarume e?*

manu na e roho=mu udu-na mai gwarume

bird SPKR.ASYM 3.R fly=PROG mouth-3SG.POSS with fish

‘the bird is flying and in his mouth is a fish, isn't it?’

- (91) OK: *e roho hanaivana sisia ta na henunai*
 e roho hanai=va na
 3.R fly above=PST/HAB REL
 sisia ta na henu-na=ai
 dog one SPKR.ASYM below-3SG.POSS=LOC
 ‘as the bird was flying over, there was a dog underneath’
- (92) OK: *e roha dae una manu e itaia*
 e roha dae una manu e ita-i-a
 3.R look up DEM.DIST.SG bird 3.R see-TR-3SG
 ‘he looked up and he saw the bird’
- (93) OK: *mai gwarum- gwarumena ida*
 mai gwarume-na ida
 with fish-3SG.POSS with
 ‘with the fish’
- (94) OK: *bena una manu na ela*
 bena una manu na e la
 then DEM.DIST.SG bird SPKR.ASYM 3.R go
 ‘and that bird went’
- (95) OK: *rigi latanai e helai*
 rigi lata-na=ai e helai
 branch top-3SG.POSS=LOC 3.R sit
 ‘sat down on the branch’
- (96) OK: *una- sisia na una*
 sisia na una
 dog SPKR.ASYM DEM.DIST.SG
 ‘that dog’
- (97) OK: *gwaru- gwarume na e gahusiav- e urava baine abia*
 gwarume na e ura=va baine abi-a
 fish SPKR.ASYM 3.R want=PST/HAB 3SG.IRR take-3SG
 ‘he wanted to take the fish’
- (98) ES: *mm*
- (99) MB: *mm*

- (100) OK: *benā ede lau ai be da asi dibagu reana*
 benā ede lau be da asi diba-gu
 then which 1SG ADDR.(A)SYM VADA NEG know-1SG
 rea-na
 reason-3SG.POSS
 ‘and for some reason, I don't know’
- (101) OK: *manu na mareremarere benā*
 manu na mareremarere benā
 bird SPKR.ASYM ? then
 ‘while the bird was moving around’
- (102) OK: *gwarume e moru*
 gwarume e moru
 fish 3.R fall
 ‘the fish fell’
- (103) MB: *mm*
- (104) OK: *gwarume e moru be e diho eitaia*
 gwarume e moru be e diho
 fish 3.R fall and 3.R down
 ‘the fish fell and he looked down’
- (105) OK: *gwarume e moru sisia uduna e hagaia*
 gwarume e moru sisia udu-na e haga-i-a
 fish 3.R fall dog mouth-3SG.POSS 3.R open-TR-3SG
 ‘the fish fell down and the dog opened its mouth’
- (106) OK: *gwarume ela sisia udunai*
 gwarume e la sisia udu-na=ai
 fish 3.R go dog mouth-3SG.POSS=LOC
 ‘the fish went into the dog's mouth’
- (107) OK: *e koria*
 e kori-a
 3.R bite-3SG
 ‘he bit it’
- (108) OK: *benā da u-*

bena da

then VADA

‘and then’

(109) OK: *sisia se da- sisia se gwarume ona eania ore, manu be da-*

sisia se gwarume ona e ani-a ore

dog ERG fish until 3.R eat-3SG finish

manu be da

bird ADDR.(A)SYM VADA

‘the dog ate the fish until he finished it, and the bird’

(110) OK: *da da se moale*

da da se moale

VADA VADA NEG happy

‘he was not very happy’

B2. Extract from VIDNR004-20191211

This is an extract from the first five minutes of VIDNR004-20191211 where MB and ES are describing two videos involving the processing of ngali nuts (filmed by Claudia Wegener) to DT who cannot see the videos. DT has pictures which represent the result of the process being shown in the video and the three speakers have been asked to match the pictures with the videos.

Stimulus 1: Ngali nut cracking

- (1) ES: *oh, hahine ta bona memero*
hahine ta bona me~mero
woman one and RDP~boy
'there's a woman and boys'
- (2) MB: *maragidia*
maragi-dia
small-3PL
'little ones'
- (3) ES: *maragidia*
maragi-dia
small-3PL
'little ones'
- (4) ES: *memero kekeni maragidia*
me~mero kekeni maragi-dia
RDP~boy girl small-3PL
'small boys and girls'
- (5) MB: *kekeni maragidia*
kekeni maragi-dia
girl small-3PL
'small girls'
- (6) ES: *okari e hodomu*
okari e hodo=mu
ngali.nut 3.R shell=PROG

- ‘they are shelling ngali nuts’
- (7) MB: *e hodova*
 e hodo=va
 3.R shell=PST/HAB
 ‘they were shelling’
- (8) DT: *hodomu?*
 hodo=mu
 shell=PROG
 ‘shelling?’
- (9) DT: *mm?*
- (10) ES: *okari e hodoamu*
 okari e hodo-a=mu
 ngali.nut 3.R shell-3SG=PROG
 ‘they are shelling a ngali nut’
- (11) MB: *okari e homodu*
 okari e hodo=mu
 ngali.nut 3.R shell=PROG
 ‘they are shelling ngali nuts’
- (12) DT: *oh, homodu, okay*
 hodo=mu
 shell=PROG
 ‘oh, shelling, okay’
- (13) ES: *mm*
- (14) DT: *mm-hmm*
- (15) DT: *dahaka?*
 ‘what?’
- (16) DT: *a hereva lou asina kamoni- kamoni namonamo*
 a hereva lou asi-na kamoni namonamo
 2SG.IMP talk again NEG-1SG.R hear well
 ‘say it again, I didn't hear it properly’
- (17) ES: *oh, okay*
- (18) ES: *hahine ta bona maragi- memero kekeni maragidia haida*

hahine ta bona me~mero kekeni maragi-dia haida
 woman one and RDP~boy girl small-3PL some
 ‘a woman and some little boys and girls’

(19) ES: *okari e-*

okari
 ngali.nut
 ‘ngali nut’

(20) DT: *okari, okari, io*

okari okari io
 ngali.nut ngali.nut yes
 ‘ngali nut, yes’

(21) ES: *okari*

okari
 ngali.nut
 ‘ngali nut’

(22) DT: *okari, ina?*

okari ina
 ngali.nut DEM.PROX.SG
 ‘okari, this one?’

(23) ES: *ko- koukoudia e kokimu*

koukou-dia e koki=mu
 shell-3PL 3.R remove=PROG
 ‘removing their shells’

(24) ES: *mm, mm*

(25) DT: *mm-hmm*

(26) DT: *okari, io*

okari io
 ngali.nut yes
 ‘ngali nut, yes’

(27) DT: *oh, okay*

Stimulus 2: Ngali nut smashing

(28) MB: *hahine na*

hahine na
woman SPKR.ASYM
'there's a woman'

(29) MB: *okari- okari e abidia, ani?*

okari e abi-dia ani
ngali.nut 3.R take-3PL Q
'she took the ngali nut, right?'

(30) ES: *io, okari na*

'yes, ngali nut'

(31) DT: *okari e abidiamu*

okari e abi-dia=mu
ngali.nut 3.R take-3PL=PROG
'she is taking the ngali nut'

(32) ES: *e abidiamu na ekara be- be hododiamu*

e abi-dia=mu na ekara
3.R take-3PL=PROG SPKR.ASYM looks.like
be hodo-dia=mu
3SG.IRR shell-3PL=PROG
'taking them and looks like they are going to hit them'

(33) DT: *ena*

e-na
AL.POSS.NCOM 3SG.POSS
'hers?'

(34) ES: *e dahaka?*

dahaka
what
'what?'

(35) DT: *oh*

(36) ES: *gau ta lalonai e udaia bena*

gau ta lalo-na=ai e uda-i-a bena

- thing one in-3SG.POSS=LOC 3.R put-TR-3SG then
 ‘put one thing inside something and’
- (37) ES: *nadi ai, au ai*
 nadi =ai au =ai
 rock OBL stick OBL
 ‘with a stone, with a stick’
- (38) MB: *au*
 au
 stick
 ‘stick’
- (39) MB: *au ai e danudiamu e-*
 au ai e danu-dia=mu
 stick OBL 3.R unspecified.action-3PL=PROG
 ‘she is doing something to them with a stick’
- (40) MB: *e kwadidiamu na heto*
 e kwadi-dia=mu na heto
 3.R hit.with.instr-3PL=PROG SPKR.ASYM like
 ‘she is hitting them, it looks like’
- (41) ES: *mm*
- (42) DT: *oh*
- (43) ES: *e hamakohidiamu*
 e ha-makohi-dia=mu
 3.R CAUS-break-3PL=PROG
 ‘she is breaking them’
- (44) MB: *makohidiamu*
 makohi-dia=mu
 break-3PL=PROG
 ‘breaking them’
- (45) DT: *oh, ha- na hamakohidiamu, lasi*
 na ha-makohi-dia=mu lasi
 1SG.R CAUS-break-3PL=PROG no
 ‘I am breaking them, no’

- (46) ES: *mm*
- (47) MB: *ina-*
- (48) DT: *okari?*
okari
ngali.nut
‘ngali nut?’
- (49) DT: *okari?*
okari
ngali.nut
‘ngali nut?’
- (50) MB: *okari- okari anina na boseai e udaia*
okari ani-na na bosea=ai
ngali.nut meat-3SG.POSS SPKR.ASYM basket=LOC
e uda-i-a
3.R put-TR-3SG
‘she put the kernel of the ngali nut in the basket’
- (51) ES: *e- okari anina na hari*
okari ani-na na hari
ngali.nut meat-3SG.POSS SPKR.ASYM HARI
‘the kernel of the ngali nut’
- (52) DT: *boseai e atodia*
bosea=ai e ato-dia
basket=LOC 3.R put-3PL
‘putting them in the basket’
- (53) MB: *io, bosea, mm*
io bosea
yes basket
‘yes, the basket, mm’
- (54) ES: *mm*
- (55) MB: *lasi*
‘no’
- (56) DT: *lasi?*

‘no?’

(57) MB: *bosea anina na da be oremu*

bosea ani-na na da
basket contents-3SG.POSS SPKR.ASYM VADA
be ore=mu
3SG.IRR finish=PROG
‘the contents of the basket are nearly finished’

(58) DT: *oh, okay*

(59) MB: *yeah*

(60) ES: *bosea amo hari dahaka*

bosea amo hari dahaka
basket from HARI something
‘from the basket that thing’

(61) MB: *okari na e a-*

okari na
ngali.nut SPKR.ASYM
‘ngali nut’

(62) ES: *okari na danuai e udamu, um-*

okari na danu=ai e uda=mu
ngali.nut SPKR.ASYM unspecified.item=LOC 3.R put=PROG
‘they’re putting the ngali nut in something’

(63) DT: *dahaka?*

dahaka
what
‘what?’

(64) ES: *nadi*

nadi
rock
‘a stone thing’

(65) ES: *nadi ta lalonai e udamu be- bena be- ehamakohimu*

nadi ta lalo-na=ai e uda=mu
rock one in-3SG.POSS=LOC 3.R put=PROG

bena e ha-makohi=mu

then 3.R CAUS-break=PROG

‘she is putting them in a stone (mortar) and breaking them’

(66) MB: *danu itaitana ekara danu*

danu itaita-na ekara danu

unspecified.item appearance-3SG.POSS looks.like also

‘also seems like something’

(67) MB: *una- una na ekara dia nadi una na ekara au bena-*

una na ekara dia nadi

DEM.DIST.SG SPKR.ASYM looks.like NEG rock

una na ekara au bena

DEM.DIST.SG SPKR.ASYM looks.like tree then

‘doesn’t look like it’s stone, looks like wood and-’

(68) MB: *au na hea- ehadanua*

au na e ha-danu-a

tree SPKR.ASYM 3.R CAUS-unspecified.action-3SG

‘she is doing something with the stick’

(69) MB: *ekara na- na hari okari na una gau au lalonai e udamu bena*

ekara na hari okari na

looks.like SPKR.ASYM HARI ngali.nut SPKR.ASYM

una gau au lalo-na=ai e uda=mu bena

DEM.DIST.SG thing wood in-3SG.POSS=LOC 3.R put=PROG then

‘looks like the okari are put in that wooden thing, and’

(70) DT: *oh*

(71) ES: *e- e hapata- e patadiamu*

e pata-dia=mu

3.R smash-3PL=PROG

‘she is smashing them’

(72) MB: *e danu na-*

e danu

3.R unspecified.action

‘she is doing something-’

- (73) DT: *e botaia- patadia*
 e bota-i-a pata-dia
 3.R hit-TR-3SG smash-3PL
 ‘she is hitting one- smashing them’
- (74) MB: *e patadiamu, io*
 e pata-dia=mu io
 3.R smash-3PL=PROG yes
 ‘she is smashing them, yes’
- (75) DT: *oh, okay*
- (76) MB: *motu ai na dahaka? as-*
 motu =ai na dahaka
 Motu =LOC SPKR.ASYM what
 ‘what is it in Motu?’
- (77) ES: *mm*
- (78) DT: *lasi, ina be lasi?*
 lasi ina be lasi
 no DEM.PROX.SG ADDR.(A)SYM no
 ‘no, this is not it?’
- (79) ES: *lasi*
 ‘no’
- (80) MB: *una hahine na ekara hari una okari na e danudiamu*
 una hahine na ekara
 DEM.DIST.SG woman SPKR.ASYM looks.like
 hari una okari na e danu-dia=mu
 HARIDEM.DIST.SG ngali.nut SPKR.ASYM 3.R un.action-3PL=PROG
 ‘that woman looks like she is doing something to that particular ngali nut’
- (81) DT: *okari e danudiamu? lasi*
 okari e danu-dia=mu?
 ngali.nut 3.R unspecified.action-3PL=PROG
 ‘what is she doing to the ngali nut?’
- (82) MB: *ia na i-*
 ia na

3SG SPKR.ASYM

‘she is-’

- (83) MB: *e- ekara imana ruaosi au na e abia be danu e-*
ekara ima-na rua-osi au na
looks.like hand-3SG.POSS two-PTV wood SPKR.ASYM
e abi-a bena danu
3.R hold-3SG then also
‘looks like she is holding the wooden pestle with both hands and also-’
- (84) ES: *okari na e hamakohidiamu*
okari na e ha-makohi-dia=mu
ngali.nut SPKR.ASYM 3.R CAUS-break-3PL=PROG
‘she is breaking the ngali nuts’
- (85) ES: *e hapatapadiamu*
e ha-pata~pata-dia=mu
3.R CAUS-RDP~smash-3PL=PROG
‘she is crushing them up’
- (86) MB: *e hapata pariamu*
e ha-pata pari-a=mu
3.R CAUS-smash moisten-3SG=PROG
‘she is crushing and moistening them at the same time’
- (87) DT: *benā au readia bona*
benā au rea-dia bona
then tree maybe-3PL and
‘then maybe the wooden thing and-’
- (88) ES: *benā e- unu amo e vaidia benā*
benā unu amo e vai-dia benā
then DEM.DIST.PL from 3.R take.out-3PL then
‘then she has taken them out of that (container) then’
- (89) ES: *dui rauna ai*
dui rau-na=ai
banana.tree leaf-3SG.POSS=LOC
‘in the banana leaf’

- (90) ES: *e udadia*
 e uda-dia
 3.R put-3PL
 ‘she wrapped them up’
- (91) MB: *e udadia*
 e uda-dia
 3.R put-3PL
 ‘she wrapped them up/put them in’
- (92) DT: *io*
 ‘yes’
- (93) MB: *gauna be readia una mm*
 gau-na be rea-dia una
 thing-3SG.POSS ADDR.(A)SYM maybe-3PL DEM.DIST.SG
 ‘that looks like it’
- (94) ES: *mm*
- (95) DT: *ina be okari?*
 ina be okari
 DEM.PROX.SG ADDR.(A)SYM ngali.nut
 ‘is this the ngali nut?’
- (96) ES: *okari e hapatapataia*
 okari e ha-pata~pata-i-a
 ngali.nut 3.R CAUS-RDP~smash-TR-3SG
 ‘she crushed the okari’
- (97) MB: *okari- badina okari na nadi amo ehamo-*
 badina okari na nadi amo
 because ngali.nut SPKR.ASYM rock INSTR
 ‘because the ngali nut with a stone’
- (98) MB: *e hadanu*
 e ha-danu
 3.R CAUS-unspecified.action
 ‘she is doing something’
- (99) DT: *oh*

- (100) ES: *unu na e- devaia na*
 unu na da e vai-a na
 DEM.DIST.PL SPKR.ASYM VADA 3.R take.out ?
 ‘she is taking out those things’
- (101) MB: *be hari ah- okari na hari e pataiamu mm*
 bena hari okari na hari
 then HARI ngali.nut SPKR.ASYM HARI
 e pata-i-a=mu
 3.R smash-TR-3SG=PROG
 ‘and she is crushing up the ngali nut’
- (102) ES: *e hapataia gaudia na*
 e ha-pata-i-a gau-dia na
 3.R CAUS-smash-TR-3SG thing-3PL REL
 ‘the crushed ones’
- (103) DT: *okay*
- (104) DT: *oh, ore, namo?*
 ore namo
 finish good
 ‘is it done?’
- (105) MB: *ia na dounu una gauna eha- ehadanuamu*
 ia na dounu una gau-na
 3SG SPKR.ASYM still DEM.DIST.SG thing-3SG.POSS
 e ha-danu-a=mu
 3.R CAUS-unspecified.action-3SG=PROG
 ‘she is still doing something to that thing’
- (106) DT: *oh dounu*
 dounu
 still
 ‘still’
- (107) MB: *imanai e kokimu be hari bosea ai e udamu*
 ima-na=ai e koki=mu
 hand-3SG.POSS=LOC 3.R remove=PROG

- bena hari bosea=ai e uda=mu
 then HARI basket=LOC 3.R put=PROG
 ‘taking it out with her hand and putting them in the basket’
- (108) ES: *hari e hapata- okari e hapatapataia gauna na e vaiamu*
 okari e ha-pata~pata-i-a gau-na na
 ngali.nut 3.R CAUS-RDP~hit-TR-3SG thing-3SG.POSS REL
 e vai-a=mu
 3.R take.out-3SG=PROG
 ‘she scooped/took out the smashed/crushed ngali nut’
- (109) ES: *hari dui raunai e udaiamu*
 hari dui rau-na=ai e uda-i-a=mu
 HARI banana.tree leaf-3SG.POSS=LOC 3.R put-TR-3SG=PROG
 ‘putting them in the banana leaf’
- (110) MB: *ma-*
- (111) DT: *mm*
- (112) ES: *eh-heh gauna be ena*
 gau-na be ena
 thing-3SG.POSS ADDR.(A)SYM DEM.MED.SG
 ‘that’s it’
- (113) MB: *gaudia be readia ena*
 gau-dia be rea-dia ena
 thing-3PL ADDR.(A)SYM maybe-3PL DEM.MED.SG
 ‘that’s probably it’
- (114) DT: *oh, okay, e ore?*
 e ore
 3.R finish
 is it finished?
- (115) MB: *idia na de-*
 idia na
 3PL SPKR.ASYM
 ‘they are-’
- (116) ES: *mm*