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‘Where’ questions and their responses in Duna (Papua New Guinea)

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Abstract: Despite their central role in question formation, content interrogatives in spontaneous conversation remain relatively under-explored cross-linguistically. This paper outlines the structure of ‘where’ expressions in Duna, a language spoken in Papua New Guinea, and examines where-questions in a small Duna data set in terms of their frequency, function, and the responses they elicit. Questions that ask ‘where?’ have been identified as a useful tool in studying the language of space and place, and, in the Duna case and elsewhere, show high frequency and functional flexibility. Although where-questions formulate place as an information gap, they are not always answered through direct reference to canonical places. While some question types may be especially “socially costly” (Levinson 2012), asking ‘where’ perhaps provides a relatively innocuous way of bringing a particular event or situation into focus.

Keywords: question-answer pairs; where interrogatives; Papuan languages

1 Introduction

Every language has ways to identify and describe places, for example through place names or locative constructions. Questions that ask ‘where?’ are in some ways the flip-side of statements that tell us where, as they formulate location as an information gap as opposed to an identifiable referent. As such, the concept of a where-question has been treated as an important way to define and study the language of space and place. In a groundbreaking study of how the domain of space is encoded cross-linguistically, Levinson and Wilkins (2006a) used where-questions as the “functional frame” that allowed them and their contributors to identify and compare basic locative constructions (BLCs) in a range of diverse languages. Kitinger et al. (2013) treat where-questions as a key way to locate and study place reference in English conversational data, while descriptive grammars may include reference to where-questions as an important part of describing locative constructions (e.g., Guirardello-Damian 2002). Where-questions are also prominent in other ways, for example, it has been suggested that they may be a linguistic universal (Levinson and Wilkins 2006b: 15), and they can be important components of specific cultural practices such as greetings and other interactions that identify and relate interlocutors to each other (e.g., Blu 1996, Zhang 2014: 141). Exploration of Duna examples highlights other features of where-questions that may have cross-linguistic relevance, including where-words as a possible source for other interrogative pronouns, the high frequency of where-questions, their importance in interactions with children, and their multi-functionality. A focus on responses in the Duna data further raises issues in the broader study of content interrogatives in interaction, especially the structural and semantic ‘match’ of an answer to a question, and how different content questions may show different patterns of use.

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Common sense, as well as relevant literature, tells us that where-questions predict place reference in the upcoming turns of a conversation (i.e., the question's answer). Generally, such questions would seem to request a response that specifies a location, as in the fragment of English conversation in (1).

- (1) Maureen: *Where does her sister live?*
 Terry: *Boise Idaho.*
 (USBC Game Night: Yin Yang12-95 - Wisconsin Ford)

However, common sense and conversational data also tell us that where-questions are not always answered through direct reference to canonical 'places'. For example, in (2) a where-question does not trigger a canonical description of a location, but rather of a person.

- (2) Sy: *Where did you get that filing box from?*
 Jay: *From uh that fellow who used to sit uhm back of you, who- who got fired.*
 Sy: *Jordan?*
 Jay: *Jordan yeah.* (Schegloff 1996: 462)

There are several possible explanations for why (2) appears to transform from a where-question sequence that focuses on place to something more like a who-question sequence, focusing on a person. For example, we can imagine that Jay's response, while not referring to a place, offers potential for Sy to *infer* a place, for example, an office or a particular shelf (cf. Schegloff 1972, Enfield 2010, discussed further below). One could also argue that in this instance a person is a kind of place (see Wilkins 2002), in that both categories can be understood as sources for things. At the same time, it may be that Jay understands Sy's question as primarily relating not to a location, but to how a particular object came into Jay's possession, and that this is the informational goal that Jay orients to. Like any conversational sequence, where-questions can thus provide simple examples of pragmatics at work, illustrating how interactants reach behind spoken words to infer a speaker's aims, and draw on individual and shared knowledge to offer a response that may not, on the face of it, precisely match the form of the preceding turn.

The goals of this paper are descriptive and exploratory. I first outline the structure, frequency and functions of 'where' expressions in the under-described language Duna (§2), contributing data to the typology of interrogative forms and their use in spontaneous speech. I then examine the kinds of responses where-questions elicit in a small sample of conversation (§3). While some instances of where-question sequences in the Duna data seem to be straightforward expressions of 'place ignorance' followed by provision of 'place reference', others are less transparent. Examining how patterns of response to where-questions compare to those of who-questions further suggests that these two kinds of content questions may have partially divergent statuses in Duna interaction (§4). Both 'where' and 'who' interrogatives can clearly be used to elicit information about a specified kind of missing referent (place and person, respectively), but in a surprisingly high proportion of instances, they do not. Reasons for this appear to be different for the two question types. Some evidence suggests that, while to ask a who-question may tread on delicate ground, where-questions can be a less risky and more all-purpose investigative tool, similar to the way that polar questions are suggested to be less "socially costly" than content questions (Levinson 2012). If this is so, perhaps it has to do with the inescapable presence of place in any situation or event we choose to talk about: there is always a 'where' in the background (§5).

Duna is spoken by some 20,000 people whose homelands lie in Hela Province, Papua New Guinea. The language is classified as Trans New Guinea (Ross 2005). Further information on Duna, its speakers, and the region can be found in Haley (2002), San Roque (2008), San Roque and Loughnane (2012), and the references cited therein. The data reported in this paper include conversations between members of the Duna-speaking community (sometimes also including the author), video-and/or audio-recorded in the Lake Kopiago area in 2009 and 2010. The examples discussed are largely drawn from a collection of 51 where-questions that occurred in a sample of approximately 100 minutes of talk (collated from 10 different conversations). As the data set is small, conclusions are preliminary and would benefit from further testing in relation to a larger corpus of Duna conversation.

2 Overview of Duna where-questions

2.1 'Where' interrogative pro-forms

Content or information questions typically identify a 'missing' element of a proposition, prompting an interlocutor to fill in this bit of information. In most languages, this is done by means of interrogative pro-forms,¹ specialised question words that "limit the field that the asker expects the unknown to be part of" (Sadock and Zwicky 1985:185). The interrogative pro-form 'where' (and its approximate equivalents in other languages) limits the field of the unknown to a place. On the surface, where-questions are thus mostly concerned with locating people, things, and/or activities, including identifying origins and destinations.

'Where' words are sometimes considered to play second fiddle to interrogative pro-forms that focus on identifying people ('who') and things ('what'). Siemund (2001: 1020-1021) makes a primary distinction between 'who/what' terms, which can "substitute for the core arguments of a predication", and those such as 'where' and 'when', which "seek circumstantial information". Even so, dedicated 'where' words have a strong presence cross-linguistically and are treated by Cysouw (2004) as one of four major interrogative categories of person, thing, place and selection ('which'). In a limited survey, Cysouw finds that in the majority of languages each of these four concepts is coded as a synchronically unanalysable lexeme, as with the words *who*, *what*, *where* and *which* in English. Other studies have suggested that in terms of phonological, morphological and cognitive complexity, 'where' words belong with 'what' and 'who' as core interrogative forms cross-linguistically (Heine et al. 1991, Mackenzie 2009).

Duna has several expressions that equate to a 'where' interrogative form, listed in Table 1. In all but one instance, the 'where' word can be analysed as a root *pa-* in combination with an enclitic that also occurs with nouns and/or demonstrative roots; this compositionality is discussed further below. The exception is the word *pano* 'where is/are...?', which includes the initial syllable *pa* but is not a synchronically analysable form; that is, I cannot identify an origin for the final syllable *no*.

Table 1. 'Where' terms in Duna

WORD	COMPOSITIONAL ELEMENT	MEANING
<i>pana</i>	- <i>na</i> 'specific'	'where, what (specific) place?'
<i>pata</i>	- <i>ta</i> 'locative' (inner locative)	'to/at/on where?'
<i>paka</i>	- <i>ka</i> 'place' (outer locative)	'at/in/around where?'
<i>para</i>	- <i>ra</i> 'inner/concealed location'	'in/inside where?'
<i>pali</i>	- <i>li</i> 'territory'	'where, which country or territory?'
? <i>pakuru</i> [rare]	- <i>kuru</i> 'place group'	'where, at/in/around what places?'
<i>pano</i>	? [no synchronically known form]	'where is/are ...?'

It is, of course, also possible to ask questions about places without using a dedicated place interrogative. For example, in English the terms *which* and *what* can be used in complex phrases to apply to the selection of a place (e.g., *which/what city do you come from?*), and the same is true of Duna terms such as the selection interrogative pro-form *pania* 'which'. However, in this paper I look only at questions formed with one of the 'where' expressions listed in the first column of Table 1.

The range of where-question forms available in Duna make it possible for a speaker to be quite specific about the situation they are querying, for example, whether they expect the answer to identify an inner

¹ While some suggest that interrogative pro-forms are universally present in the world's languages (e.g., Ultan 1978, Siemund 2001), in certain languages functional equivalents to information questions are formed using indefinite pronouns, so that a class of specific interrogative forms is arguably absent (see, e.g., Sadock and Zwicky 1985: 184).

locative (as suggested by selection of the form *pata*) or outer locative (*paka*), etc. (see Wilkins 2006: 27-28 for discussion of the rich range of ‘where’ words available in the Australian language Arrernte). However, as a general rule, *pana* appears to be the default Duna ‘where’ form. This is the form that is used, for example, in the phrase *ko pana ngui* ‘where are you going?’, a typical utterance used when meeting someone out walking.

A simple example of a where-question sequence using *pana* is shown in (3). In this conversation extract, DK has been relating an incident about a woman he knows. Seeing a group of people cooking pork, this woman asked to buy a piece of meat, but was refused because the owners of the pork were absent. The woman took offence at the refusal and made some sarcastic comments. At this point in the story once of the listeners, MK, asks DK where the owners of the pig had gone, using the term *pana*. DK responds using a directional demonstrative (*eto*) and a place name (*Hiranda*²). *Pana* follows the subject NP and precedes the verb. This is a typical position for location expressions in Duna (although other constituent orders are possible).

(3) MA: *ita auwa-yarua-tia khunu pa-na nga-ta kei*
 pig owner-SNS.C-GP 3PL QUERY-SPEC go-SEQ be/stand.STAT
 ‘Where are these pig owners?’ [More literally: ‘Where are these pig owners gone and staying?’]

DK: *ita auwa, eto Hiranda kei-na*
 pig owner ETO PLN be/stand.STAT-SPEC
 ‘The pig owners, [they] are over at Hirane.’ [DV1/2010-07-18]

In (3), the default ‘where’ term *pana* is the first instance in the immediate context that place is mentioned at all. The more semantically constrained Duna where-words (i.e., those that are case-marked with *-ta*, *-ra* or *-ka*) may alternatively be especially well-suited to situations where a place has already been referred to, for example in repair sequences where the questioner needs clarification of a location that has just been mentioned (as in example 6, discussed in §3.1).

The word *pano* ‘where is’ is distinct from the other Duna where-words in that it inherently predicates current existence or location, and, unlike *pana* (etc.) is rarely used with a verbal predicate. Like other predicates in Duna (canonically, verbs), *pano* occurs clause-finally, as seen in (4). Here the speaker RK, a three-year-old child, asks the whereabouts of her father, Hiripa. Her mother responds using a place phrase (composed of a directional term and the clitic *-ka*) and an existential/posture verb *rei* ‘be, sit’.³ This illustrates how *pano* does not ‘stand in’ for a place reference alone, but for a place reference in combination with an existential/positional predicate.

(4) RK: *Hiripa pano?*
 PSN where.is
 ‘Where is Hiripa?’

DA: *Hiripa eto-ka rei-na, yia-pa*
 PSN ETO-PLC be/sit.STAT-SPEC call-IMP
 ‘Hiripa is over there, call him!’

² This is a complex place name formed from the place/group name *Hirane* and an enclitic *-nda* ‘enclosure’, which is in turn derived from the noun *anda* ‘house’.

³ As in many languages of New Guinea (see, e.g., Foley 1986: 88-90, Lang 1975), existential predicates in Duna double as verbs of posture or placement and can perform an ‘existential-classificatory’ function (Rumsey 2002). The three main existential verbs in Duna are *ka-* ‘be/stand’, associated with males, larger animals, and upright objects, *ra-* ‘be/sit’, associated with females, smaller animals, still liquids, and (*e*)*ra-* ‘be/lie/put’, associated with most other inanimates and lying or crawling animals (see Giles MS and San Roque 2008 for further details). All three are irregular and the latter two verbs can be homographs in some environments (e.g., when used with certain medial morphemes).

The current data suggest that *pano* is primarily used in regard to temporary locations, for example, querying where a person or moveable object is at the time of speaking, as opposed to the location of less moveable items such as trees and houses. Whether or not this is a strict specification – and where its boundaries lie – need to be tested through further work with Duna consultants.

A further area for exploration is the composition of Duna interrogatives. In terms of Cysouw's (2004) study of interrogative forms, Duna 'where' terms show characteristics of both compositional and unanalyzable words. While recognising the relevant clitics (*-ta*, *-ra*, etc., see Table 1) is straightforward, the putative root to which they attach, *pa-*, does not occur as an independent word, and the best way to interpret its meaning(s) is something of a puzzle. *Pa-* appears not only in 'where' words but also in other (more or less transparently analysable) interrogative pro-forms, for example, the selection interrogative *pania* 'which', the time interrogative *paneki* 'when' and the manner term *pame* 'how', among others. In this paper I gloss *pa-* with the general meaning of 'query' (cf. the Proto-Indo European interrogative stem **kw(o)-*, Mallory and Adams 2006; although, unlike in PIE, the Duna term for 'who', *ai*, does not include the putative interrogative root). However, it is plausible that *pa-* has (or had) a more specific domain of meaning that has been extended to other domains, the two most likely sources being place ('where') and/or selection ('which'). These pathways for the formation of question words are well-attested cross-linguistically, for example 'where' terms have been shown to be the source for interrogatives that express selection, time, manner, reason, quantity, or even (in rare cases), people and things (Cysouw 2004, 2007; Idiatov 2007).⁴ This points to the relevance of place interrogatives to other semantic domains, suggesting that complex words or phrases formed with 'where' were used with sufficient frequency in regard to *non*-places that these terms developed additional meanings and became new interrogative forms (cf. English *wherefore*). 'Where' pro-forms may also be more likely than other interrogative words to have additional grammatical functions, such as marking relative clauses (Hendery 2012).⁵

In Duna, the term *pana* provides some evidence that a basic meaning of *pa-* is 'where'. For the other compositional forms, place meaning is arguably supplied by the locational clitics *-ta*, *-ra*, *-ka*, *-li* and *-kuru*, all of which are also used in place reference with demonstratives and/or nominals. For these forms, it is not necessary to posit that *pa* itself specifies place as a semantic domain. However, the form *-na* 'SPEC' that is posited to occur in *pana* does not seem to have any inherent locational meaning when used with nominals and demonstratives; it rather indicates that the word in question has a specific and identifiable referent. Thus, it is hard to see where the 'where' meaning of *pana* comes from, unless it is lurking in *pa* (alternatives would be to treat *pana* as a frozen form, or to argue that 'where' meaning must be generated pragmatically; but, even so, these analyses would again suggest place to be a prominent semantic domain in questions). There is also some suggestion that other languages spoken in the Duna region have interrogative inventories that are, in part, built from a basic 'where' term (e.g., Enga, Lang 1973). On the other hand, there are many cases cross-linguistically of 'where' meanings being extended from a 'which' meaning, including neighbours of Duna (e.g., Oksapmin, Loughnane 2009; see also other Ok languages such as Mian, Fedden 2011) as well as further afield in the New Guinea region (e.g., Alamlak, Bruce 1984: 80; Yéli Dnye, Levinson 2010) and elsewhere (see Cysouw 2004, Idiatov 2007). It is thus also reasonably likely that *pa* has a core or erstwhile meaning to do with selection, that is, something like 'which', and that this has spread to place as well as other domains.

2.2 Frequency

A major cross-linguistic study of questions in ten languages (see Stivers et al. 2009, Stivers et al. 2010) has indicated that the frequency of place-relevant questions in comparison to other content questions

⁴ Note that this is not simply a function of unanalysability, as while 'what' and 'which' terms are also common source forms for other interrogatives, this is not the case for 'who' words, which are also typically unanalysable (Cysouw 2004).

⁵ In Duna, the syllable *pa* is found in certain complementisers and as a final verb inflection and it seems likely that there is a diachronic relationship between these forms (especially as there are several other instances of final verb markers in Duna that have likely developed from NP constituents such as demonstratives, e.g., via the pathway of non-embedded nominalisation).

is typically quite high, but that this varies across languages. Stivers and colleagues classified content questions according to their function (rather than the interrogative word used).⁶ Their data indicate that questions that queried location were either the second or third most frequent content question in at least five of the ten languages investigated (Danish, Heinemann 2010; Dutch, Englert 2010; Japanese, Hayashi 2010; Lao, Enfield 2010; Yéli Dnye, Levinson 2010), and for Tzeltal were the most frequent kind of content question in the sample (Brown 2010). However, for English, location questions were in fifth place, following those relating to objects, reasons, manner, and time, and tying with amount (Stivers 2010). Turning to interrogative form only, the SUBTLEX_{US} corpus (a database of North American English subtitles comprising approximately 51 million words) likewise indicates that the word *where* is comparatively infrequent in spoken English, being outranked by *what*, *how*, *who*, *when* and *why* (in that order).

Where does Duna fit in? Table 2 shows the relative frequency of where-questions compared to other content questions in approximately 100 minutes of Duna conversation (involving both child and adult interactants). The counts exclude those forms that occurred in embedded clauses (e.g., ‘We want to know *where* you came from’) and exclamations. This sample suggests that places are quite frequently the (apparent) focus of questions in Duna conversation: ‘what’, ‘where’ and ‘who’ question words occur about as often as each other, and far outstrip the other five interrogatives that were present in the sample (‘which’, ‘why’, ‘how’, ‘how many’, and ‘when’).⁷

Table 2. Counts of Duna interrogative pro-forms in a 100-minute sample (recordings include both adult and child interactants)

FORM(S)	TRANSLATION	NUMBER
<i>aki</i>	what	53
<i>pana, para, pano, paka, pata</i>	where	51
<i>ai</i>	who	50
<i>pania</i>	which	12
<i>aki wata, panemeta</i>	why	12
<i>pame, paneme, panemo, panenokoe</i>	how	8
<i>akitia</i>	how much/many	5
<i>paneki</i>	when	4
TOTAL		195

Duna thus seems to conform to the majority of the ten languages looked at in Stivers et al. (2010). The relative frequencies indicate that while place may be peripheral in the sense that it is less likely to have core argument status, it is nevertheless frequently in focus from an information structure perspective. Interestingly, however, the inclusion of child-directed speech in the Duna sample may have an effect on relative rankings, as there is some indication that where-questions are especially frequent (compared to other content questions) in speech to children. Nearly half of the where-questions in this particular Duna data set (23/51) are addressed to interactants aged 3 years old or younger, compared, for example, to only

⁶ For example, an English question such as *which place?* would be counted as a ‘where’ question. Thus, the results of Stivers et al. (2010) are comparable but not completely equivalent to the SUBTLEX and Duna frequency data.

⁷ In terms of the makeup of the corpus, young children were present (at least some of the time) for six of the ten conversations from which where-questions were sourced. As a rough estimate, probably something like one sixth of the utterances in the total 100+ minute sample were addressed to children three years old or younger, but this remains to be calculated more exactly. There were eight embedded interrogative examples found in the sample, using the following question words: *ai* ‘who’ (1); *aki* ‘what’ (3); *pame, paneme* ‘how’ (3); and *para* ‘where’ (1). The one exclamative example in the data used the form *aki* ‘what’. Overall, the categories of interrogative did not occur equally often, $\chi^2(7)=145.64$, $p < .0001$. Standardised residuals showed that ‘what’, ‘where’ and ‘who’ terms were more frequent and other terms were less frequent than predicted by chance, with all values reaching significance for a two-tailed test. (Calculation tool: <http://vassarstats.net/csfit.html>)

about one fifth (9/50) of who-questions. Thus, if we exclude utterances directed to young children, the comparative frequency of 'where' in Duna may look different. Further data and analysis are needed to test this hypothesis. As a possible parallel, however, Casillas et al. (in press) found that where-questions were the third-most common content question addressed to English-speaking children between the ages of 1;8-3;5. This is a striking result given the lower frequency of 'where' questions in spoken English overall (as seen in both the Stivers 2010 study and the SUBTLEX corpus). From the children's production side, where-questions (along with what-questions) are also among the most commonly produced content questions in English (Bloom et al. 1982, Clark 2003, Casillas et al. under review, Ervin-Tripp 1970, Tyack and Ingram 1977) and in German (Schmerse et al. 2013), and, based on data from one English speaker, may also be among the more frequently *answered* questions for children (Clark and Lindsey 2015). Clark (2003) further observes that young children often interpret when-questions as queries regarding location, while Ervin-Tripp (1970) found that even children who understand *when* may still use *where* for asking questions about time, and that location answers were also produced by at least some children in response to activity ('what-doing?') questions.⁸ Overall, these findings suggest that place is a salient 'questionable' feature in child-caregiver interaction, potentially over and above domains such as manner, time and reason.

2.3 Functions

Contributors to the cross-linguistic study discussed above (see Stivers et al. 2010) generally found that content questions were used to request information and/or to clarify something just uttered. For example, Heinemann (2010) notes that, in a collection of 112 Danish content questions, 55 were information requests and 46 were either open or closed class 'repair initiators' (i.e., attempts to resolve some problem of speaking, hearing or understanding, for example, asking *when?* in response to the utterance *I have to leave at 4 o'clock today*). A much smaller number were used as confirmation requests (1), assessments (1), rhetorical questions (5) and 'outloud' questions (4), that is, where the speaker 'wonders' something rather than clearly expecting an informative answer from their interlocutor.

The general trend concerning the function of content questions as information requests and repair initiators was also observed for 'where' questions in Duna. More than two thirds of where-questions in the sample (35/51, 69%) appeared to be broadly information-seeking, either in relation to a newly introduced location (as in examples 3 and 4, above) or in regard to clarifying a location reference in a prior utterance, that is, initiating closed class repair (as in 6, below). In addition to these, a substantial proportion of the total (13/51, 25%) appeared to be deployed as rhetorical questions that did not require an informative answer, but might be used to tease, make a joke, and/or show up a misapprehension or problem in the discourse or speech setting.⁹ An example is shown in (5). Here, a group of women are sitting outside Tina's house preparing food and Tina complains that sticky sap from the bananas she is peeling is covering her hands. One of her companions, Ada, suggests using soap to get it off. However, soap is a scarce, expensive and highly-valued commodity in the community. Tina rejects Ada's apparent assumption that she has soap available and laments her condition with the rhetorical question, 'Where is there soap?'. Her question does not receive any response.

⁸ Anecdotally, I have observed this to be the case for why-questions in English, for example, Parent: 'Why are you crying?' Child (approx. 2yrs): 'In the kitchen.'

⁹ Of course, it is possible that some of these were *not* originally intended as rhetorical questions. Where the question design and context support a rhetorical interpretation, there is no offer or pursuit made of an informational response, and my translation consultant interpreted the question as rhetorical, I found it reasonable to assume that this was intended as a rhetorical question. However, this may not always be correct, just as some apparent information-seeking questions may originally have been intended as rhetorical.

(5) Tina: *Sss, hale mbuka-na-ka, ke-pa*
 exclamation banana sap-SPEC-?INSTR see-IMP
 ‘Sss, the banana sap, look!’ ((spreads out hand, palm up, while looking at it))

((Ada glances rapidly at Tina’s hand))

Ada: *mm, sopo-ka waye sa-nda*
 mm soap-INSTR wash take-INT
 ‘Mm, we’ll wash with soap’

((Tina looks at her hand again))

Tina: *sopo pa-na ro*
 soap QUERY-SPEC be/lie/put.PFV
 ‘Where is there soap?!’

Several of the rhetorical ‘where’ questions identified were addressed to young children that could not be expected to be informative respondents, for example saying *ko tarati pano*, ‘where are your trousers?!’ to gently tease a child about being naked. (For very young children, such utterances can perhaps also serve as a rebuke to a child’s primary caregiver, for example, for failing to make sure that the child is dressed.)

The sample also included 2 cases of apparent ‘outloud’ questions, where the speaker expresses ignorance about a location but does not seem to expect (and does not receive) a response from someone else, and one example where the respondent repeats the whole question back to the answerer, potentially initiating open class repair (i.e., pointing to a problem with the utterance, but not identifying place reference as a specific trouble source).

Table 3. Functions of where-questions

FUNCTION	NUMBER
information-seeking (including closed class repair)	35
rhetorical	13
outloud/through-produced	2
question repeat (open class repair)	1
TOTAL	51

Overall, then, the where-questions in the sample typically have the expected function of requesting information from an interlocutor (Table 3). However, rhetorical questions also have a strong presence in that they account for approximately a quarter of the examples, suggesting that querying location can be an effective way to rhetorically challenge an interlocutor. Outloud or through-produced examples are also present, but much less common. In the next section we look in more detail at what is offered in response to where-questions, especially those of the information-seeking kind.

3 Responses to ‘where’ questions

Responses to questions can give insight into how an addressee has interpreted and evaluated a questioner’s utterance. Fitted, informative responses suggest that the conversational machinery and the interactants’ co-assessment of common ground is working well. By contrast, a non-answer, or the absence of any response at all, can suggest that the recipient has noted something ‘wrong’ or challenge-worthy in the question or speech situation.

Responses to the where-questions in the Duna sample are here separated into three types. Firstly, we look at place-referent responses, that is, those that supply the sought location or destination, etc. (§3.1). Other responses, that is, those which do not include an explicit place reference, are discussed in §3.2. A surprisingly high proportion of where-questions received no observed response, and reasons for this are suggested in §3.3. The data sample also included three responses to where-questions which were either not clearly audible in the recording or appeared to be cut-off before the completion of the turn. These are not included in the numerical comparisons in §3.1 and §3.2, so that in those sections we are looking at a total sample of 48 rather than 51 utterances. A summary of the responses can be seen in Table 5 in §4.

3.1 Place-referent responses

Enfield (2010) notes that, theoretically, a 'maximally conforming' response to a content question would match the same ontological category as the question, thus supplying "precisely [the] unknown, sought after piece of information" (2010: 2659). That is, the maximally conforming response to a where-question will transparently identify a place, as in examples (1), (3) and (4), above. In the Duna sample, 13/48 responses were of this kind (approximately 27%); a surprisingly low amount.

Place-referent responses to 'where' interrogatives show a semantic parallelism between the gap identified in the question and the reference made in the response. They may also show tight structural parallelism between question and answer. This is seen in (6), in which the questioner uses the 'where' term *pata* 'to/at/on which place', composed of the root *pa-* and the locative marker *-ta*, which is also applicable to nominals, demonstratives and directional forms. Here, a family group are outside their house preparing food. Adam initiates a conventional leave-taking formula 'You stay...' and states that he is going, using a directional term (*apo*) in combination with *-ta*. *Apo* indicates that Adam will be going somewhere that is at roughly the same altitude as his current location, and comparatively distant (e.g., not a near neighbour's), but it is not highly specific (for example, as compared to a place name). The speaker's daughter (Kate) asks him to clarify the location and Adam responds with some further information — he is visiting a mourning house (a place where vigil is kept for a recently deceased person). Kate now closes the leave-taking formula with the conventional response *ma* 'go', suggesting that she now recognises this location and is satisfied with Adam's explanation.

(6) Adam: (*ayu*) *inu-ka ha-me ra-no*
 now/today 1/2PL-CS there-MNNR be/sit-DES
 '(Now) you guys stay as you are'

Tom: *ma*
 go.IMP
 'Go'

Adam: *no apo-ta nga-ya-nia*
 1SG level.distant-LOC go-DEP-ASSERT
 'I'm going to over there'

Lil: *ma*
 go.IMP
 'Go'

Kate: *ko pa-ta nga-ya*
 2SG QUERY-LOC go-DEP
 'You're going to where?'

Adam: *no kene-anda-ta nga-ya*
 1SG death-enclosure-LOC go-DEP
 ‘I’m going to the mourning house’

Kate: *ma*
 go.IMP
 ‘Go’

In a clarification sequence such as (6), the questioner’s informational goal appears to be transparent and the terms of the queried situation are (to a large extent) already set by the initial statement. This supports strong structural parallelism between question and answer. Thus, the speaker’s original place reference (*apota*) is substituted by the ‘where’ term (*pata*) and then an alternative place reference (*kenandata*) in otherwise nearly identical clauses, consisting of a pronoun (*no* ‘1SG’ or *ko* ‘2SG’), then a place reference formed with the locative marker *-ta*, followed by a form of the verb *nga-* ‘go’.

Sequences such as (6) relate obliquely to studies of cross-turn priming and repetition. Healey et al. (2014) have recently argued that real-life conversational participants are less prone to cross-speaker structural repetition than has previously been claimed (see, e.g., Levelt and Kelter 1982). In a study of English conversational data, Healey et al. suggest that genuine syntactic repetition, independent of lexical repetition, is actually *dispreferred* in conversation, as “the demands of constructive engagement with a conversational partner normally overwhelm structural priming effects” (2014: 6). Closed-class repair sequences, however, such as those that use where-questions, illustrate one environment where structural priming effects and the demands of “constructive engagement” converge.

3.2 Other responses

Nine of the 48 (non-)responses examined did not include reference to place, apparently failing to directly address the particular information gap specified by the questioner.¹⁰ Of these, three are open class repair initiations, where the speaker indicates they find some aspect of the question problematic, and asks (directly or indirectly) for this to be resolved. Two further responses can be classified as ‘non-answers’ (see Stivers and Enfield 2010) in that the respondent rejects some aspect of the presupposition expressed in the question (for example, the question is *Where did you see him go?* and the response is *I didn’t see him*).

The four remaining responses have a somewhat different character: they do not include overt reference to place; they do not directly challenge some aspect of the question; they do appear to try to meet the informational goals of the question; and they do appear to satisfy the questioner. An example is shown in (7). In this exchange, Tom is calling from the verandah of his house down to his mother-in-law, Isabel, who is on a path some distance away.¹¹ Isabel has just told Tom that she is on her way to the local clinic to get some medicine for herself. Tom asks if other family members are accompanying her, and, receiving a negative response, asks where they are. In her reply, Isabel does not directly describe the whereabouts of the people in question, but instead explains their current activity and plans for the day; they are waiting to travel to Wala (a garden area 1-2 hours walk away from their home). Unlike examples such as (4), her answer does not include a predication that neatly fits the information gap ostensibly delineated by Tom. Tom goes on to query Isabel’s statement, but does not explicitly request that she clarify the current location of the family, indicating that her answer to at least some extent addresses the informational goal of his question.

¹⁰ In one additional case, the where-question was itself an open class repair initiation, and thus did not actually predict a place-referent answer. This response is counted as ‘other’ in Table 5.

¹¹ This extract thus shows several features that are typical to ‘long-range’ calling communication, such as longer pauses between turns and use of a special ‘message received/affirmative’ response, *uu*.

- (7) Tom: *anita aka ngoya-pe ko angu-pe*
 group COM go.IPFV-Q 2SG RESTRICT-Q
 'Are the others going with you or is it just you?'
- Isa: *no angu*
 1SG RESTRICT
 'Just me'
- Tom: *e, anita pano-pe*
 hes group where.is-Q
 'Where are the others?'
- Isa: *anita roma Wala nga-nda rei-na-o*
 group above PLN go-PURP be/sit.STAT-SPEC-VOC
 'The others are waiting to go up to Wala'
- Tom: *Wala nga-nda ri-tia-pe*
 PLN go-INT say-VIS-Q
 'They said they're going to Wala?'
- Isa: *uu*
 'Yes'
- Tom: *eto mitini anda-ta ra-nda ri-tia-na*
 ETO mission house-LOC be/sit-INT say-VIS-SPEC
 'They told me they would stay over at the mission house [i.e., at home]'
- Isa: *wae (yaa)*
 'Huh?'
- Tom: *misin anda eto-ka ra-nda ri-tia-na*
 mission house ETO-PLC be/sit-INT say-VIS-SPEC
 'They told me they would stay at the mission house area over there'
- Isa: *eto-ka ra-ta-ni itane roma-ta nga-nda ri-tia*
 ETO-PLC be/sit-SEQ-COMPL later above-LOC go-INT say-VIS
 'They said they will stay over there and later go to the higher place'

As pointed out by Schegloff (1972) in regard to English and discussed by Enfield (2010) specifically in regard to responses to where-questions in Lao, place reference can be accomplished in a variety of ways. One situation that Enfield (2010) illustrates is where a question as to a person's location can be adequately answered through reference to their activity: thanks to common ground, saying what a person is doing (e.g., collecting reeds) can also communicate where they are (i.e., at a commonly-known reed-collecting spot).

Duna example (7) is comparable to Enfield's (2010) Lao example in that Isabel's response arguably implies a location: if her family are 'waiting to go', they are most likely currently at home. However, the way Isabel formulates her answer suggests she assumes Tom is interested not only in the family's current location, but also what they are up to (perhaps, for example, Tom wants to know why they are letting her walk to the clinic alone rather than accompanying her). Furthermore, Tom reveals during the exchange that he already had a strong expectation as to the family's whereabouts, supporting an interpretation that his original where-question was not *solely* about location. In this instance, a where-question serves not only to identify a place but also as a way into talking about people's plans and activities. It thus seems possible

that Tom has chosen to use a specific place query to serve a broader informational goal (e.g., to learn *why* and *what* as well as *where*).

Example (8) shows another situation in which a Duna where-question is answered with something other than a typical place reference. In this case we see some similarities to English example (2), above. A group of women are sitting together outside preparing food. A few seconds after one of them mentions a fishing line that she has lent to a friend, Ada ponders what happened to another, particularly high quality, fishing line that she had previously observed other people using. Tina explains that the fishing line was dropped or left behind somewhere, and that she retrieved it and returned it. (Freya attempts to ask more about who had the fishing line, but her question is produced in overlap with Tina's explanation and receives no response at this time.) In reaction to Tina's statement, Ada asks where the fishing line was. In response to Ada's where-question, Tina does not immediately specify a place, but describes the fishing line using reference to a person: it was the one left behind by a woman named Lini. Ada appears to find this information satisfactory, indicating recognition and acceptance of Tina's response.¹² Following Ada's turn, Tina elaborates further, this time including deictic reference to a place and giving more details about who returned the fishing lines. Ada wistfully recalls the good quality of the lines, and the women then move on to talk about something else.

(8) Ada: *Arapa wena huku eya paye*
 PSN fish hook line good
imane ha-na-ka peli kone ndu ho-nga si ko koa,
 y.woman there-SPEC-CS good INTENS one here-EXCV hold be/stand.PFV FOC
yapa-nia, ho-ra-tia pa-ne-nokoae?
 two-?ASSERT here-SHRD-GP QUERY-TYPE-HYP
 'Arapa's great fishing line, that woman she had a great one right here, two-[?stranded], what could have happened with those?'

Freya: *ai-ka [si ko*
 who-CS hold be/stand.PFV
 'Who had it?'

Tina: *[iwa-ta khi-ta ro sa-ta ngi-na*
 drop-SEQ lose-SEQ be/lie/put.PFV take-SEQ give-SPEC
 'It was left and I took it and gave it back'

Ada: *pa-ka ra-roko ?ta so*
 QUERY-PLC be/lie/put-SW.SIM ? take.PFV
 'Where was it?'

Tina: *Wili, a Ket-, aipoko Lini-ka ndu khi-na ko-na*
 PSN HES PSN whatsit PSN-CS one lose-SPEC be/stand/PFV-SPEC
 'Wili, ah Ket-, whatsername, the one Lini left'

Ada: *eee*
 'Ooh right'

¹² An alternative analysis is that Tina is, in fact, ignoring Ada and answering Freya's earlier 'who' question. However, the gaze and bodily orientation of the women make this unlikely, as while she says *Wili, a Ket...*[etc.], Tina turns her head and gaze to Ada, away from the direction in which Freya is sitting, while at this point Freya is not looking in Tina's direction and continues to look away for the rest of the exchange. Furthermore it is Ada, not Freya, who acknowledges Tina's utterance with the information uptake *eee*.

Tina: *hona eto-ra, eto, ndu na ro,*
 here-SPEC ETO-CNCL ETO one 1SG.CS be/lie/put.PFV
ro sa-ye ndu Alisi-ka sa-ta ngi-ya-na
 be/lie/put.PFV take-DEP one PSN-CS take-SEQ give-?-?SPEC
 'That one in there, I put it aside, I took the one I had and Alice took one and gave it back'

Ada: *yee paye hu-nua-ka huku-no*
 EXCL good ?this.EMPH-VIS.IMPL-CS hook-DES
 'Aaah, that one hooked [fish] really well.'

In this exchange, Tina seems to infer that Ada's question is motivated not simply by a desire to know a location, but to be able to identify the fishing line in question, and trace its history of possession. In this particular fragment, Ada's where-question in fact appears to accomplish this task more successfully than the direct who-question asked by Freya (see also §4).

Duna examples (7) and (8) illustrate that the potential for inference in where-question sequences is a two-way street. On the one hand, these examples support the contention that place reference can be obliquely achieved through reference to other things (e.g., activities, people), as has been discussed in relation to other languages (e.g., Lao, Enfield 2010; Avatime, van Putten 2014); the question-asker can make an inference based on the proffered response. Conversely, these examples suggest that expressing a place reference 'gap' can also be an effective way to find out about non-places, as the respondent may orient to what they infer the questioner *really* wants or needs to know. Thus, while content questions do not always elicit the specific information they ostensibly seek, this can still constitute a successful and well-fitted question-answer sequence.

3.3 Questions without answers

Twenty-five of the 51 where-questions in the data did not receive an observable verbal response (nor do any of these receive observable gestural responses).¹³ While this is a high proportion, the reasons for these non-responses appear straightforward. As we have already seen in §2.3, 15 of the where-questions favoured a lack of response in that they were rhetorical or outlouds. The remaining 10 were addressed to two children, one of whom was approximately 16 months old and had quite minimal verbal production skills, and one of whom was three years old. With the younger child, where-questions were asked playfully (as part of a greeting exchange) and the lack of a verbal response is to some extent expected. The corpus shows that the three-year-old child was capable of both asking and answering where-questions. However, based on findings from English-speaking children, it seems very possible that young children do not always follow the 'rules of response' that are part of an adult's normal conversational behaviour, even when they are aware of these rules (cf. Ervin-Tripp 1979), and that children may in any case be slower to answer questions than adult speakers (Casillas 2014). We see in the Duna data that when a child does not respond immediately or otherwise displays inattention, an adult speaker may repeat a question or move the conversation on by changing topic; and/or a child may quickly become distracted by other activities. In (9), RK is asked a where-question three times. Firstly, Tim asks where 'mother Kathy' (RK's cousin's mother) has gone. During this utterance RK gazes at the ground and does not appear to be paying any attention to the conversation. Her mother (Kate) very rapidly repeats the question (in fact, hardly giving RK a chance to reply to Tim), and then, after a pause of just over 1 second, repeats it again with a slightly different formulation. RK remains non-responsive to these questions and is instead engaged by a surprising event that is happening nearby (a dog stealing a cucumber).

¹³ However, it is possible that at least some of these questions were responded to in ways that were not audible or visible in the available video recordings due to occlusion, etc.

- (9) Tim: *antia Keti pa-na ngo*
 mother PSN QUERY-SPEC go.PFV
 ‘Where has mother Kathy gone?’

((RK remains looking down))

Kate: *antia pa-[na ngo*
 mother QUERY-SPEC go.PFV
 ‘Where has mother gone?’

Fred: [*yehe, pambo-na si ngoya-na ke!*
 EXCLAM cucumber-spec hold go.IMPV-SPEC KE
 ‘Hey, [the dog] is carrying off the cucumber!’

((RK looks up))

Kate: *hinia antia-na pa-na ngo*
 this mother-SPEC QUERY-SPEC go.PFV
 ‘Where’s this one’s mother gone?’

((RK glances momentarily towards her mother but then looks away from her to where the dog is, points to it and smiles delightedly))

Keeping in mind examples such as (9), it is plausible that a young child would simply answer interrogatives less often than may be usual for adult speakers, and that this contributes to the low response rate for where-questions in this data set.

4 Comparison of ‘where’ and ‘who’ questions

The data discussed in sections 2 and 3 suggest that Duna where-questions can be multi-functional, and can be answered in a variety of ways. Only about a quarter of where-questions in this sample (which includes rhetorical and child-addressed questions) elicited a maximally fitted response, that is, one that included a place reference. Is this range of functions and responses specific to questions that focus on place, or also found with other interrogatives? In fact, little is known about how different kinds of content questions are used in spontaneous interaction and how this might differ cross-linguistically (Enfield 2010; see also Bednarek 2014). Levinson (2012) discusses in detail the potential “social costs” of asking questions (for example, confessing ignorance, revealing one’s current concerns) and proposes that certain kinds of questions may be more costly than others. For example, questions that request more information are judged to be more socially costly, leading to a preference for polar questions over content questions (Levinson 2012: 23-24). In this section, I compare where-questions and who-questions in the Duna sample and consider whether their use in spontaneous conversation suggests that the costs and functions of these question types are equivalent or distinct.

Cross-linguistically, who- and where-questions share similarities in that they tend to be among the more frequent examples of content questions, they are both semantically more constrained than what-questions (the other ‘big player’), and they belong to the only two domains (person and place) that are regularly accorded proper names. They also have clear differences, for example in relation to animacy (i.e., the missing referent of a who-question is very likely to be human, while this is unlikely for where-questions) and to canonical participant role (e.g., core versus peripheral). The examples studied here give some indications that Duna speakers also view the value of who- and where-questions differently, in that who-questions may perhaps be more fraught with potential problems (and thus more socially costly), while where-questions may be a preferred ‘all-purpose’ question type. This is suggested by three features of the current data set: i) in comparison to where-questions, who-questions were less frequently information-requests, and more fre-

quently rhetorical; ii) at least some where-questions elicited *co-operative* non-conforming responses (as in 7 and 8) but who-questions did not; and iii) amongst information-seeking questions, more who-questions than where-questions received either non-answer responses, or no response at all. However, as the data set is very small, the idea that where-questions are somehow easier to use than who-questions remains a hypothesis that must be tested further before drawing strong conclusions.

The 'who' interrogative pro-form in Duna is less complex and varied than the 'where' forms, as it consists of a single morpheme, *ai* (see also Table 1). *Ai* can be combined with role-marking and number-marking morphemes as appropriate and thus further semantically constrained (e.g., with the 'pair' marker *-ne* to produce *aine* 'who, what pair of people?'), but it can also occur as a complete question (i.e., unlike the putative root *pa* 'where/which', discussed in §2.1, which cannot be used independently). An example of a who-question and its answer is (10).

- (10) Kate: *anita inu koani pi-na ri-ya-ta sopa-ra,*
 group 1/2PL unready OPIN-SPEC say-DEP-SEQ below-CNCL
koani wa-nda wa-ye ra-roko ke-ta no ho
 unready come-INT do-DEP be/sit-SW.SIM see-SEQ 1SG come.PFV
 'The others thought we weren't ready and below, I saw they're getting ready to come and I came.'

Peter: *ai-tia*
 who-GP
 'Who?'

Kate: *Ana, Susana, Matilini*
 PSN PSN PSN
 'Anna, Susanna, Madeline.'

In terms of frequency, we have seen in Table 2 that in this Duna data set who- and where-questions are roughly equal (although this is affected by whether or not child-directed questions are included). In regard to function, the sample suggests that who-questions, like where-questions, are typically used to request information: 24 of the 50 examples are broadly information-seeking (48%). However, this was in a lower proportion than for where-questions, and rhetorical who-questions have a formidable presence, making up 38% of the total (19/50). As rhetorical questions are typically challenging utterances, this supports the hypothesis that who-questions may themselves have an affinity with difficult or problematic situations. The remaining who-questions include 4 outlouds, 1 through-produced question, and 2 conventionalised hailing forms, which are used to get the attention of a distant, usually not clearly visible, interlocutor (and for which an informational response is possible, but not necessarily expected). These results are summarised in Table 4, along with the earlier-presented information on where-questions for ease of comparison.¹⁴

Table 4. Functions of where- and who-questions

FUNCTION	WHERE	WHO
information-seeking (including closed class repair)	35	24
rhetorical	13	19
outloud/through-produced	2	5
other	1	2
TOTAL	51	50

¹⁴ Due to the small numbers involved (more than 20% of values are less than 5) it is not appropriate to use a chi square test in relation to the data shown in tables 4 and 5 (Preacher 2001). A larger data set would be required to test whether frequency differences between the functions of/ responses to where and who-questions are statistically significant.

Table 5 shows that responses to who-questions are both similar and different to where-question responses. Almost exactly the same proportion of who-questions (12/49, 24%) as of where-questions receive maximally ‘fitted’ responses, that is, answers that include reference to the person asked about (as in 10). The number of apparently non-person/place-referent responses is also comparable (8 for who-questions, 10 for where-questions). However, the nature of these differs somewhat for the two question types. For who-questions, non-person referent responses include: 1 repair initiation; 4 non-answers; 2 responses to rhetorical questions; and 1 response to a conventional hailing formula. There were no instances of ‘oblique’ responses to who-questions, that is, sequences comparable to (7-8) discussed above in regard to where-questions. At least in this data set, interactants appear to assume that who-questions are always about people, and there is no evidence that expressing ignorance about a person’s identity can be satisfactorily addressed through reference to other ontological categories, for example, to an activity or location. In these recordings, a where-question might serve as a more general enquiry into a state of affairs, but a who-question does not.

Table 5. Responses to where and who-questions

RESPONSE TYPE		WHERE	WHO
place/person referent		13	12
NOT place/person referent	repair initiation	3	1
	non-answer	2	4
	oblique answer	4	0
	other	1	3
inaudible/incomplete		3	1
no response		25	29
TOTAL		51	50

Finally, we see that, like where-questions, a large proportion of who-questions received no observed response at all. Again, however, the reasons for this are different. For where-questions, all interrogatives that did not receive a response were either rhetorical, outloud, and/or directed to young children. While this was the case for most who-questions that received no response, the data also include 6 cases of information-seeking questions, addressed to adult speakers, that are passed over (one of these can be seen in (8), above). The total number of information-seeking who-questions with adult addressees was 18. Thus, a third of information requests addressed to adults that specifically target the domain of person (6/18) are apparently ignored, something that did not happen at all for where-questions in this data set.

Overall, then, Duna who-questions show similarities to where-questions (for example in terms of frequency, typical function, and rate of fitted response), but also some potential differences. In this sample, where-questions were more frequently addressed to children, and who-questions were more frequently rhetorical. Information-seeking where-questions that were addressed to adults sometimes received oblique answers, but were never ignored. By contrast, information-seeking who-questions were never obliquely answered, and were ignored by adult addressees a third of the time. Taken together, the differences point to a possible preference for asking about places as a comparatively ‘safe’ way of requesting information and/or sustaining interaction, compared to the perhaps more specific and sensitive domain of person (cf. Brown 2007: 173).

5 Summary and concluding remarks

Where-questions are important to our understanding of place reference and to the development of a theory of content questions in conversation. Through examining the Duna examples, we find that questions which highlight place are prominent in grammar and conversation, and that different content questions may

differ in terms of their patterns of use and response.

In Duna, 'where' expressions are numerous and (at least diachronically) morphologically complex, including a pro-form that stands in for a (temporary) locational predicate, as well as other pro-forms that encode spatial relationships. Some evidence suggests that the root *pa-*, which occurs in several Duna interrogatives, may have (had) a basic 'where' meaning that spread to include other domains (e.g., time). Based on a small data set, where-questions appear to be frequent in comparison to other content questions in Duna, and may be especially common in child-directed speech. As would be expected from our understanding of the typical function of content interrogatives cross-linguistically, where-questions are most commonly used in Duna conversation to request information, but also have a range of other functions, for example, as rhetorical questions. The Duna findings support an argument that, despite the typically peripheral nature of place in terms of several key linguistic features (e.g., grammatical status and semantic role) 'where' interrogatives make a strong showing cross-linguistically in terms of linguistic encoding, frequency and multi-functionality. Furthermore, in at least some languages, children appear to learn where-questions early and perhaps find them easier to respond to than certain other content question structures.

In what ways can content questions differ? In the Duna data set examined, where- and who-questions were equally frequent, but the former were more commonly used as information requests and the latter were more commonly rhetorical. A closer look at responses also drew attention to both similarities and differences. Surprisingly, where- and who-questions in this data set only received maximally fitted answers (i.e. those that refer to places and people, respectively) about a quarter of the time. The nature of non-fitted responses differed according to the question. In particular, speakers sometimes replied to where-questions with 'oblique' answers that appeared to satisfactorily address the questioner's requirements *without* explicitly providing location information, but answers of this kind were not observed for any of the who-questions recorded. Unanswered where-questions were always accounted for by the fact that they were either rhetorical, outloud, and/or addressed to young children, whereas these factors could only partially explain non-responses to who-questions; in certain instances, questions about people seemed to be ignored or passed over. These differences in function and response type suggest that who-questions might be more problematic and socially risky than where-questions.

The Duna data remind us that although we might expect an interrogative pronoun that specifies a particular semantic category to lead to an answer that matches that category, this is not always the case. Our propensity for inference in interaction can lead us past the apparently targeted domain of a content question to answer what we think our interlocutor wants or needs to know (or, indeed, to be wary, and avoid the question altogether). Because of the background, ever-present nature of place, where-questions are perhaps especially easy to exploit in this way. If one kind of question is problematic or uncomfortable, querying place can be a relatively innocuous way of bringing a particular event or situation into focus, providing a good general strategy for eliciting information and initiating (or maintaining) discussion. Thus, a key part of the prominence of where-questions may be their multi-functionality in interaction.

Abbreviations

Abbreviations in interlinear glosses follow those suggested in the Leipzig Glossing Rules (<http://www.eva.mpg.de/lingua/resources/glossing-rules.php>) with the following additions: ABIL, abilitative; ASSERT, assertion; C, current; CMPL, completive; CNCL, concealed location; DEP, dependent; HAB, habitual; HES, hesitation; IMPL, impersonal; INT, intentive; INTENS, intensifier; MNR, manner; PLN, place name; PR, pair; PSN, personal name; REAS, reasoning; REP, reportative; SENS, non-visual sensory; SEQ, sequential; SHRD, shared; SIM, simultaneous; SPEC, specific; STAT, stative; SW, switch; UNC, uncertainty; VIS, visual. An exception from usual practice is that '-' versus '=' is not used to represent a distinction between the ligatures of affixes and clitics, respectively. Several bound morphemes shown in the examples are arguably clitics on the basis of flexibility of distribution, but further work is needed to establish that they are also clitics on phonological grounds in all attested environments. Rather than use the equals sign inconsistently all ligatures are represented with a hyphen.

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References

- Bednarek, Monika. 2014. ‘Who are you and why are you following us?’ Wh-questions and communicative context in television dialogue. In John Flowerdew (ed.), *Discourse in context: Contemporary applied linguistics, volume 3*, 49-70. London: Bloomsbury Academic.
- Bloom, Lois, Sudan Merkin and Janet Wootten. 1982. “Wh”-questions: Linguistic factors that contribute to the sequence of acquisition. *Child Development* 53(4): 1084-1092.
- Blu, Karen I. 1996. ‘Where do you stay at?’ Home, place and community among the Lumbee. In Steven Feld and Keith H. Basso (eds), *Senses of place*, 197-227. Santa Fe, NM: School of American Research Press.
- Brown, Penelope. 2007. Principles of person reference in Tzeltal conversation. In N. J. Enfield and Tanya Stivers (eds), *Person reference in interaction: Linguistic, cultural, and social perspectives*, 172-202. Cambridge: Cambridge University Press.
- Brown, Penelope. 2010. Questions and their responses in Tzeltal. *Journal of Pragmatics* 42: 2627-2648.
- Bruce, Les. 1984. *The Alambalak language of Papua New Guinea (East Sepik)*. Canberra: Pacific Linguistics.
- Casillas, Marisa. 2014. Taking the floor on time: Delay and deferral in children’s turn taking. In I. Arnon, M. Casillas, C. Kurumada and B. Estigarribia (eds), *Language in Interaction: Studies in honor of Eve V. Clark*, 101-114. Amsterdam: John Benjamins.
- Casillas, Marisa, Susan C. Bobb and Eve V. Clark. In press. Turn taking, timing and planning in early language acquisition. *Journal of Child Language*.
- Clark, Eve V. 2003. *First language acquisition*. Cambridge: Cambridge University Press.
- Clark, Eve V. and Kate L. Lindsey. 2015. Turn-taking: A case study of early gesture and word use in answering WHERE and WHICH questions. *Frontiers in Psychology* 6. doi: 10.3389/fpsyg.2015.00890
- Cysouw, Michael. 2004. Interrogative words: An exercise in lexical typology. Paper presented at Bantu Grammar: Description and Theory Workshop 3, 13 February. ZAS Berlin, Germany.
- Cysouw, Michael. 2007. Content interrogatives in Ashéninka Campa: Corpus study and typological comparison. *International Journal of American Linguistics* 73(2): 133-163.
- Enfield, N. J. 2010. Questions and responses in Lao. *Journal of Pragmatics* 42: 2649–2665.
- Englert, Christina. 2010. Questions and responses in Dutch conversations. *Journal of Pragmatics* 42: 2666–2684.
- Ervin-Tripp, Susan M. 1970. Discourse agreement: How children answer questions. In R. Hayes (ed.), *Cognition and language learning*, 79-107. New York: Wiley and Sons.
- Ervin-Tripp, Susan M. 1979. Children’s verbal turn-taking. In Elinor Ochs and Bambi Schieffelin (eds), *Developmental pragmatics*, 391-414. New York: Academic Press.
- Fedden, Sebastian. 2011. *A grammar of Mian*. Berlin: De Gruyter Mouton.
- Foley, William A. 1986. *Papuan languages of New Guinea*. Cambridge: Cambridge University Press.
- Giles, Glenda. No date. A guide to the pronunciation of Duna [and] Duna language lessons. Manuscript.
- Guirardello-Damian, Raquel. 2002. The syntax and semantics of posture forms in Trumai. In John Newman (ed.), *The linguistics of sitting, standing and lying*, 141-177. Amsterdam/Philadelphia: John Benjamins.
- Haley, Nicole. 2002. Ipakana yakaiya - Mapping landscapes, mapping lives: Contemporary land politics among the Duna. PhD dissertation, Australian National University.
- Hayashi, Makoto. 2010. An overview of the question-response system in Japanese. *Journal of Pragmatics* 42: 2685-2702.
- Healey, Patrick G. T., Matthew Purver and Christine Howes. 2014. Divergence in Dialogue. *PLoS ONE* 9(6): e98598. doi:10.1371/journal.pone.0098598
- Heine, Bernd, Ulrike Claudi and Friederike Hünermeyer. 1991. *Grammaticalization: A conceptual framework*. Chicago: Chicago University Press.
- Heinemann, Trine. 2010. The question-response system of Danish. *Journal of Pragmatics* 42: 2703-2725.

- Hendery, Rachel. 2012. *Relative clauses in time and space: A case study in the methods of diachronic typology*. Amsterdam/Philadelphia: John Benjamins.
- Idiatov, Dmitry. 2007. *A typology of non-selective interrogative pronominals*. PhD dissertation, Universiteit Antwerpen.
- Kitzinger, Celia, Gene H. Lerner, Jörg Zinken, Sue Wilkinson, Heidi Kevoe-Feldman and Sonja Ellis. 2013. Reformulating place. *Journal of Pragmatics* 55: 43-50.
- Lang, Adrienne. 1973. *Enga dictionary with English index*. Canberra: Pacific Linguistics.
- Lang, Adrienne. 1975. *The semantics of classificatory verbs in Enga (and other Papua New Guinea languages)*. Canberra: Pacific Linguistics.
- Levelt, Willem J. M. and Stephanie Kelter. 1982. Surface form and memory in question answering. *Cognitive Psychology* 14: 78-106.
- Levinson, Stephen C. 2010. Questions and responses in Yélf Dnye, the Papuan language of Rossel Island. *Journal of Pragmatics* 42: 2741-2755.
- Levinson, Stephen C. 2012. Interrogative intimations: On a possible social economics of interrogatives. In Jan P. de Ruiter (ed.), *Questions: Formal, functional, and interactive perspectives*, 11-32. Cambridge: Cambridge University Press.
- Levinson, Stephen C. and David Wilkins (eds). 2006a. *Grammars of space: Explorations in cognitive diversity*. Cambridge: Cambridge University Press.
- Levinson, Stephen C. and David Wilkins. 2006b. The background to the study of the language of space. In Stephen C. Levinson and David Wilkins (eds), *Grammars of space: Explorations in cognitive diversity*. Cambridge: Cambridge University Press.
- Loughnane, Robyn. 2009. *A grammar of Oksapmin*. PhD dissertation, University of Melbourne. <http://repository.unimelb.edu.au/10187/4788>
- Mackenzie, J. Laclan. 2009. Content interrogatives in a sample of 50 languages. *Lingua* 119: 1131-1163.
- Mallory, J. P. and D. Q. Adams. 2006. *The Oxford introduction to Proto-Indo-European and the Proto-Indo-European world*. Oxford: Oxford University Press.
- Preacher, Kristopher J. 2001. Calculation for the chi-square test: An interactive calculation tool for chi-square tests of goodness of fit and independence [Computer software]. <http://quantpsy.org>.
- Ross, Malcolm. 2005. Pronouns as a preliminary diagnostic for grouping Papuan languages. In Andrew Pawley, Robert Attenborough, Jack Golson and Robin Hide (eds). *Papuan pasts: Cultural, linguistic and biological histories of Papuan-speaking peoples*, 15-65. Canberra: Pacific Linguistics.
- Rumsey, Alan. 2002. Men stand, women sit: On the grammaticalisation of posture verbs in Papuan languages, its bodily basis and cultural correlates. In John Newman (ed.), *The linguistics of sitting, standing and lying*, 179-211. Amsterdam: John Benjamins.
- Sadock, Jerrold M. and Arnold M. Zwicky. 1985. Speech act distinctions in syntax. In Timothy Shopen (ed.), *Language typology and syntactic description, Volume I: Clause structure*, 155-196. Cambridge: Cambridge University Press.
- San Roque, Lila. 2008. *An introduction to Duna grammar*. PhD dissertation, Australian National University.
- San Roque, Lila and Robyn Loughnane. 2012. Inheritance, contact and change in the New Guinea Highlands evidentiality area. *Language and Linguistics in Melanesia: Special Issue 2012 Part II*, 397-427.
- Schegloff, Emanuel A. 1972. Notes on a conversational practice: Formulating place. In D. Sudnow (ed.), *Studies in social interaction*, 75-119. New York: Free Press.
- Schegloff, Emanuel A. 1996. Some practices for referring to persons in talk-in-interaction: A partial sketch of a systematics. In Barbara Fox (ed.), *Studies in anaphora*, 437-485. Amsterdam: John Benjamins.
- Schmerse, Daniel, Elena Lieven and Michael Tomasello. 2013. Error patterns in young German children's wh-questions. *Journal of Child Language* 40: 656-671 doi:10.1017/S0305000912000104
- Siemund, Peter. 2001. Interrogative constructions. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher and Wolfgang Raible (eds), *Language typology and language universals*, 1010-1028. Berlin: Walter de Gruyter.
- Stivers, Tanya. 2010. An overview of the question-response system in American English conversation. *Journal of Pragmatics* 42: 2772-2781.
- Stivers, Tanya and N. J. Enfield. 2010. A coding scheme for question-response sequences in conversation. *Journal of Pragmatics* 42: 2620-2626.
- Stivers, Tanya, N. J. Enfield, Penelope Brown, Christina Englert, Makato Hayashi, Trine Heinemann, Gertie Hoymann, Federico Rossano, Jan P. de Ruiter, Kyung-EunYoon and Stephen C. Levinson. 2009. Universals and cultural variation in turn-taking in conversation. *Proceedings of the National Academy of Sciences of the United States of America* 106(26): 10587-10592. doi:10.1073/pnas.0903616106.
- Stivers, Tanya, N. J. Enfield and Stephen C. Levinson (eds). 2010. *Question-response sequences in conversation across ten languages*. [Special Issue] *Journal of Pragmatics* 42(10).
- Tyack, Dorothy and David Ingram. 1977. Children's production and comprehension of questions. *Journal of Child Language* 4: 211-224 doi:10.1017/S0305000900001616
- Ullman, Russell. 1978. Some general characteristics of interrogative systems. In Joseph H. Greenberg, (ed.). *Universals of human language, Vol. IV*, 211-248. Stanford, CA: Stanford University Press.
- van Putten, Saskia. 2014. *Information structure in Avatime*. Nijmegen: Max Planck Institute for Psycholinguistics.

- Wilkins, David P. 2002. The concept of place among the Arrernte. In Luise Hercus, Flavia Hodges and Jane Simpson (eds), *The land is a map: Placenames of indigenous origin in Australia*, 24-41. Canberra: Pandanus Books.
- Wilkins, David P. 2006. Towards an Arrernte grammar of space. In Stephen C. Levinson and David P. Wilkins (eds), *Grammars of space: Explorations in cognitive diversity*, 24-62. Cambridge: Cambridge University Press.
- Zhang, Sihong. 2014. Evidentiality in Ersu. In Alexandra Y. Aikhenvald and R. M. W. Dixon (eds), *The grammar of knowledge: A cross-linguistic typology*. Oxford: Oxford University Press.