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Other-initiated repair in Cha'palaa

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Abstract: This article describes the interactional patterns and linguistic structures associated with other-initiated repair, as observed in a corpus of video-recorded conversation in the Cha'palaa (a Barbacoan language spoken in north-western Ecuador). Special attention is given to the relation of repair formats to the morphosyntactic and intonational systems of the language. It examines the distinctive falling intonation observed with interjections and content question formats and the pattern of a held mid-high tone observed in polarity questions, as well as the function of Cha'palaa grammatical features such as the case marking system, the nominal classifiers and the verb classification system as formats for repair initiation. It considers a selection of examples from a video corpus to illustrate a broad range of sequence types of opened and restricted other-initiated repair, noting that Cha'palaa had the highest relative rate of open repair in the cross-linguistic sample. It also considers the extension of OIR to other practices such as news uptake and disagreement in the Cha'palaa corpus.

Keywords: other-initiated repair; conversation analysis; intonation; Cha'palaa

1 The Cha'palaa language

The Cha'palaa language is spoken by the Chachi people in small communities and households along the rivers of the Ecuadorian Province of Esmeraldas between the Andean foothills and the Pacific coast. It belongs to the Barbacoan language family, the major family of the northern Ecuadorian Andes before the arrivals of Quechua and, later, Spanish. The Chachi maintained their language and migrated from the Andes to the relative isolation of the coastal lowlands where they live today (Jijón y Caamaño 1914, DeBoer 1995, Floyd 2010), with a current population of about 10,000 speakers (INEC 2010; Lewis et al 2013). Aside from some recent work by the author, there has been no previous work examining interactive practices of speakers of Cha'palaa (Floyd 2010, Floyd and Bruil 2011, Dingemanse and Floyd 2014, Floyd 2014), and until recently there had been only minimal work on the grammar (Moore 1962, Wiebe 1977, Vitadello 1988; Floyd 2009, 2010, 2014).

This article offers a first description of practices of everyday interaction among speakers of Cha'palaa in the area of conversational repair, in the context of a cross-linguistic comparative project including data from comparable corpora in eleven other languages. Repair practices are a good choice for this kind of 'pragmatic typology' (Dingemanse et al 2014; Dingemanse and Floyd 2014) because speakers of any language will have to deal with problems of producing and perceiving or understanding in one way or another, and we can observe similar types of repair sequences across different languages. Here the focus is on a specific type of repair sequence called other-initiated repair (OIR), in which one speaker signals a problem with a previous speaker's turn, for example by saying "what?", giving original speaker an opportunity to clarify or repeat (the study of 'repair' in this sense, including OIR, originated with Schegloff et al 1977 and other

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early work on conversation; see Kitzinger 2012 for a review). The range of practices observed in these types of sequences can be described as a language's other-initiated repair 'system' (Dingemanse and Enfield, 2015). The goal of this article is to provide a detailed description of this system for a lesser-known minority language as a contribution to cross-linguistic pragmatic typology to help illustrate what research on such languages stands to contribute to the comparative study of conversational interaction.

Cha'palaa's other initiated repair system shows many strong similarities to those seen in other languages, many of which will be highlighted in the description below. In other cases, however, Cha'palaa departs from cross-linguistic trends, sometimes in ways that can be connected to the structure of the language. While Cha'palaa follows general South American morphosyntactic trends in its basic SOV word order with extensive agglutinating verbal morphology, it also differs from the majority of SA languages, which tend to have verbal tense marking (about 90% in Mueller's sample; 2013) and person indexing (about 90% in Birchall's sample; 2014), since Cha'palaa has no person marking in its verbal morphology, and only limited and optional tense and number marking. Instead, the language marks a number of knowledge-based values in the evidential and epistemic domains with a range of different suffixes. This typological profile is significant for the study of practices of repair for a number of reasons. For instance, the fact that values such as person need not be overtly conveyed helps to structure the kinds of ambiguities that may arise, potentially leading to repair sequences in which participants attempt to resolve them (e.g. by asking "Who?"). Some examples of such sequences are shown in the following sections. Other elements of Cha'palaa's linguistic system, including its aspects of its morphological and intonational systems, also turn out to be relevant for other-initiated repair, and will be discussed along with the description of the OIR system.

2 Data collection and corpus

The corpus on which this work is based was constructed in accordance with a set of guidelines developed by and for the members of the comparative project being reported on in this special issue (see Dingemanse and Enfield, 2015, for further information). Here are the key properties of the data:

Table 1: Key properties of the data collected for the studies in this issue

• Recordings were made on video.
• Informed consent was obtained by those who participated.
• Target behaviour was spontaneous conversation among people who know each other well (family, friends, neighbours, acquaintances), in highly familiar environments (homes, village spaces, work areas).
• Participants were not responding to any instruction, nor were they given a task—they were simply aware that the researcher was collecting recordings of language usage in everyday life.
• From multiple interactions that were collected in the larger corpus, the selection for analysis in this study was of a set of 10-minute segments, taken from as many different interactions as possible (allowing that some interactions are sampled more than once), to ensure against any biased from over-representation of particular interactions or speakers.

The video corpus that provides the data for this study was recorded by the author over a period between 2007 and 2014 in household and village settings in Chachi communities of north-western Ecuador. The majority of the recordings come from the Rio Cayapas area, particularly from its tributary the Rio Zapallo. In most cases the camera was placed in a household during regular daily activities and then retrieved after about an hour. All videos included adult participants (adolescents or older), including dyads and larger groups of family members and friends, sometimes changing configuration during filming, with children often coming and going. Participants were involved in cooking, eating, doing other household tasks, making handcrafts such as woven baskets, or simply relaxing and conversing. The quantitative data considered for comparison to other corpora consisted of ten-minute selections from 27 different recordings for a total of 270 minutes sampled, including 220 individual other-initiated repair sequences; excerpts for qualitative analysis were selected from a slightly larger sample of 300 minutes from 30 recordings, including 246 OIR sequences.

3 Sequential structure and OIR

3.1 Minimal OIR sequence

A minimal other-initiated repair sequence consists of three turns: T-1, the 'trouble source', in which speaker A is continuing some ongoing sequence or initiating a new one; T0, the 'repair initiator' in which speaker B halts the progressivity of the conversation to signal some kind of trouble; and T+1, the 'repair solution', in which speaker A addresses the problem somehow, often through repeating all or part of the previous turn, or clarifying or expanding on it in some way. In Extract 1 A asks B a question which B does not fully hear; B initiates repair, occasioning a partial repetition by A.

Extract 1. CHSF2012_01_21S3_2618926

1	A	ñuchi serruchu tsutyuu?	T-1
		ñu-chi serruchu tsu-tyu-u	
		2-POSS saw lie-NEG-Q	
		is your saw there? (i.e. can I borrow it?)	
		((A is outside of the house; loud music and shouting children audible nearby))[1]	
2	B	aa	T0
		huh?	
3	A	serruchu tsutyuu?	T+1
		serruchu tsu-tyu-u	
		saw lie-NEG-Q	
		is (your) saw there?	
4	B	enku tanami ibain	progressivity resumes
		en-ku ta-na-mi i-bain	
		DM.PRX-LOC have-POS-DECL 1-also	
		I have it here ((goes to get saw))	

In many OIR sequences that are successful in resolving the problem of hearing or understanding, the sequence features a re-doing of all or part of T-1 in T+1, in this case recreating similar conditional relevance conditions after the repetition in line 3 of the question from line 1, allowing its answer to occur in line 4.

3.2 Non-minimal OIR sequences

Sometimes repair sequences are not solved immediately after the first T0, but instead speaker B treats the initial potential solution as unsatisfactory and initiates repair a subsequent time, occasioning a new opportunity for a solution in T+1. In the following extract the participants deal with a hearing problem which occasions two attempts at a repair solution in a row. In line 1, A asks B if her grandmother has gone in the canoe alone. In line 2 B initiates repair with an open repair initiator, which is followed by a repetition with elaboration (adding the word "upriver") in line 3. Still apparently having difficulty hearing, in line 4 B initiates repair again, this time with a candidate understanding asking if A was referring to a family member named Lidia. This occasions a full repetition by A 5, and this time the question is responded to by B in line 6, resolving the sequence initiated with the question in line 1.

1 In analysing cases of repair, it was sometimes possible to identify a noisy environment as the likely cause of a problem, such as in this instance when there was loud music and children making noise right at T-1, probably making it difficult for B to hear A at that moment in the interaction (however, it can be difficult to determine from the recordings precisely to what extent noise may be interfering with conversation, so ultimately cases were selected based on whether speakers oriented to trouble, not based on whether a potential trouble source is apparent in the recording otherwise).

Extract 2. CHSF2011_02_15S2_4885222

1	A	aamama maallee jii	T-1
		aa-mama maalli-ya ji-i	
		AUG-mother alone-FOC go-Q	
		did grandma go alone?	
2	B	aa	T0
		huh?	
3	A	aamama maallee feka jii	T+1
		aa-mama maalli-ya feka ji-i	
		AUG-mother alone-FOC upriver go-Q	
		did grandma go upriver alone?	
4	B	Lidiaa	T0
		Lidia-a	
		Lidia-Q	
		Lidia?	
5	A	aamama maallee feka jii	T+1
		aa-mama maalli-ya feka ji-i	
		AUG-mother alone-FOC upriver go-Q	
		did grandma go upriver alone?	
6	B	ee Leisalabaa jiwe	resumes progressivity
		ee Leisa-la-ba-ya ji-we	
		INTJ Leisa-COL-COM-FOC go-N.EGO	
		eh (she) went with Leisa and company	

In the excerpt above it is possible to see how the answer to the question asked in line 1 is not provided in line 2, where it could have been appropriate, but instead occurs only after the two repair sequences, in line 6. If speakers treat the repair solution as successful, they resume progressivity of the interaction (from T-1), but this may occur after one repair initiation, as in Extract 1, or after multiple repair initiations, as in Extract 2.

4 Formats for other-initiation of repair

This section surveys the forms that speakers of Cha'palaa use for initiating repair in T0 position. Its focus is not only on the specific linguistic resources that are used by speakers of Cha'palaa for formulating other-initiation of repair, but also on the contextual principles for selection of one type of form over another, and the kinds of functional outcomes that each type of form can have (that is, the repair operations that the forms elicit in T+1).

In the comparative project we distinguish the following main types of repair initiator (see Dingmanse and Enfield, 2015):

Table 2: Some basic format types for other-initiation of repair

Open. 'Open' repair initiators are requests indicate some problem with the prior talk while leaving open what or where the problem is exactly.
• *Interjection*. An interjection with questioning intonation.
• *Question-word*. An item from the larger paradigm of question words in the language. Most usually a thing interrogative, sometimes a manner interrogative.
• *Formulaic*. Expressions not incorporating interjection or question-word, often managing social relations or enacting politeness.
Restricted. 'Restricted' repair initiators restrict the problem space in various ways by locating or characterising the problem in more detail.
• *Request type (asking for specification/clarification)*. Typically done by content question-words, often in combination with partial repetition.
• *Offer type (asking for confirmation)*. Typically done by a repetition or rephrasing of all or part of T-1.
• *Alternative question*. Repair initiator that invites a selection from among alternatives.
Within restricted, *external* repair initiators address problems about unexpressed elements of T-1; this 'external' function can be performed by all of the listed format types for 'restricted'.

Figure 1 shows the relative frequencies of these types in the Cha'palaa corpus analysed in this study:

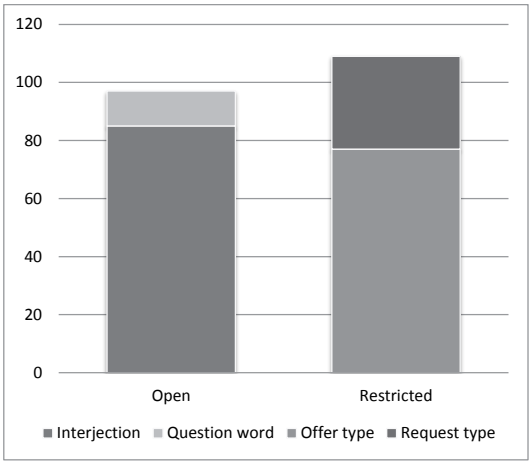

Figure 1 Types of repair initiators and their frequency in the Cha'palaa corpus

Two types of repair initiation seen in many other languages were not found in the Cha'palaa data sample, an indication that these may be more cross-culturally variable than the other formats: (1) the 'formulaic' type of open repair initiation (e.g. English 'sorry'/ 'pardon'), perhaps reflecting Cha'palaa speakers distinct politeness norms compared to those of speakers of English or some other languages, and (2) restricted repair initiation through alternative questions, reflecting the fact that there is no specialized "either/or" construction in the language. Cha'palaa can of course express the notion of alternatives, but not with a coordinator like the English 'or'; instead, speakers would use two separate clauses in juxtaposition, but this is not an option seen as a repair initiator in the sample of OIR cases.

4.1 Open formats

One area in which the Cha'palaa corpus is somewhat of an outlier is in the proportion of open to restricted repair initiation in the sample: for Cha'palaa these were about equal while for other languages restricted was markedly more frequent. This difference raises the question of whether Cha'palaa speakers, given similar

circumstances, tend to opt for open repair when in comparable cases speakers of other languages might use restricted repair, showing a preference for displaying hearing problems over understanding problems. This is perhaps because this format is neutral with respect to responsibility for the problem, which B casts as potentially a problem of his or her own hearing rather than with the formulation of any of the elements A used in T-1. Svennevig (2008) points out that this affordance of open repair allows speakers to resolve more than hearing problems, since they provide an opportunity for A not just to repeat his or her turn but also to reformulate it.

Of this large set of cases with open repair initiation, the vast majority is accomplished with interjections, which is similar to what is seen for some other languages (e.g. Russian - Baranova, this issue), but which differs from English, which makes more use of question word strategies (Kendrick - this issue). Question words for open repair in Cha'palaa were limited to a few cases (discussed in section 4.1.2), less frequently than most other languages. Restricted repair initiators primarily consisted of offer-type polarity ('yes/no') questions, with several additional formats that are described in section 4.2.

4.1.1 Interjection strategy

Comparative work looking at the form of open repair initiating interjections shows that Cha'palaa's interjection conforms to the general cross-linguistic norm of targeting a low front vowel and including only glottal consonants, if any. Dingemanse et al (2013) account for this cross-linguistic similarity a process of convergent evolution in which common pressures of the speech situation lead to similar solutions, in this case a form that is easy and quick to articulate. Cha'palaa's variant is a long vowel /a/ with slight pre-glottalization /ʔa:/. This glottalization is phonetic, and is not represented in the practical orthography applied here, which only represents phonemic glottals with a grapheme. In the orthography long vowels are represented with double characters. Thus the Cha'palaa open repair initiator /ʔa:/ is written as *aa* here. The phoneme /a/ is one of Cha'palaa's four vowels (/a/, /e/, /i/ and /u/), and when it occurs in the repair initiator it targets the same area of the vowel space as /a/ in other contexts, fitting into the phonological system of the language more broadly, rather than diverging from it. In conversation, the use of the interjection *aa* usually occasions repetitions of full or partial elements from T-1 in T+1, providing evidence that in most cases it is treated as dealing with problems of attention and unclear perception, rather than problems of understanding like disambiguation of underspecified referents. For example, Extract 3 shows how *aa* in T0 occasions a repetition of a referential term in T+1that had already occurred in T-1, casting the problem as an initial difficulty with distinguishing the word, rather than a problem of formulation that would call for reformulation or expansion along with the repetition.

Extract 3. CHSF2012_01_07S3_1554209

1	A	Joni tisee keraañaa	T-1
		Joni tisee kera-i-ñu-ya	
		Johnny INTJ see-become-EV.INF-FOC	
		Johnny, um, (he) seems to resemble (him)	
2	B	aa	T0
		huh?	
3	A	Joniya	T+1
		Joni-ya	
		Johnny-FOC	
		Johnny.	

While in Extracts 1, 2 and 4 open repair occasions full repetitions, it is interesting to consider Extract 3 in terms of the point made in 4.1, that Cha'palaa may opt for open repair in situations in which in other languages might be more commonly dealt with through restricted repair. Since the repetition in T+1 is

partial, it shows that A treated the problem as more narrowly concerning person reference, and did not repeat the entire T-1 as in most open repair cases. While it is difficult to determine what other cues speakers may use to distinguish hearing problems from other types of problems under such circumstances, other factors besides the format of the repair initiator are surely also meaningful. For example, in (3) the fact that the relevant problem was a person reference may be already foreshadowed in the trouble source, which includes a hesitation particle (*tisee*, based on question-word *ti*, 'what') adjacent to the person reference. This may allow what Svennevig (2008) calls a 'short cut', when A addresses some more specific problem even though B has only registered a hearing problem.

Similarly to other languages, in Cha'palaa there is also a less-frequent closed-mouth version of the interjection, with the same length and intonation as *aa* but articulated with a bilabial nasal: *mm*. For open repair initiation in the Cha'palaa sample, the interjection strategy was used 86% (85/99) of the time relative to the question word strategy, and the closed-mouth variant *mm* accounted for 19% (16/85) of this total, and the open-mouthed variant 81% (69/85). The closed-mouth format also usually occasioned full repetition, with no obvious difference from cases with the open-mouthed variant.

Extract 4. CHSF2012_01_21S3_2708400

1	A	demanperee yumaa	T-1
		de-man-pere-e yuma-a	
		PL-again-tun.off-IMP now-FOC	
		Turn (it) off now.	
2	B	mm	T0
		mm?	
3	A	cocina demanperee	T+1
		cocina de-man-pere-e	
		stove PL-again-turn.off-IMP	
		Turn the stove off.	

One notable aspect of the Cha'palaa open repair initiating interjection that sets it apart from almost all other languages involved in the comparative project is its intonation: while almost all languages used rising intonation, only Cha'palaa and one other language, Icelandic, used falling intonation (Enfield et al 2013, Dingemanse et al 2013). A bit of further context makes this divergence seem less remarkable, however, as in these two languages falling intonation is a standard type of prosody for questions (Dingemanse et al 2013, 3-5). The left image in Figure 1 illustrates Cha'palaa's falling intonation with the OIR interjection; the interjection strategies of the majority of languages have a final rise. The right image shows a very similar intonation with a one-syllable content question.

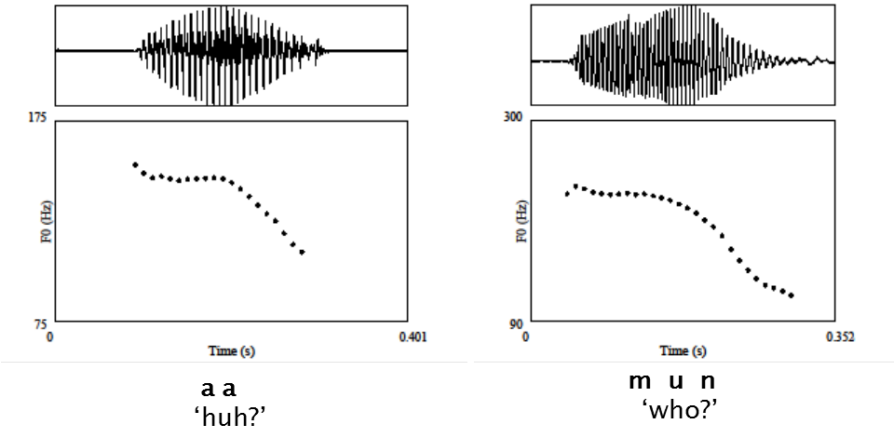

Figure 1. Cha'palaa open repair initiator interjection compared to a one-syllable content question *mun*, "who?" [CHSF2013_01_03S4_1742843]

The intonation contour observed with one-syllable content questions is a variant of a pattern of falling intonation seen with longer content questions as well, with a fall beginning around the last accented syllable. This supports the idea that the intonation of Cha'palaa OIR interjections fits with the patterns seen in the intonational system more broadly, since almost all content questions feature falling intonation, and since the intonation of one-syllable content questions is remarkably similar to that of the interjection. Figure 2 shows the falling contour associated with content questions with multiple syllables, which has different features in the beginning of the phrase, but which, like the monosyllabic variant, ends on a low boundary tone. This is the same intonation that is observed for restricted repair initiation that seeks specification through content questions, described in section 4.2.1.

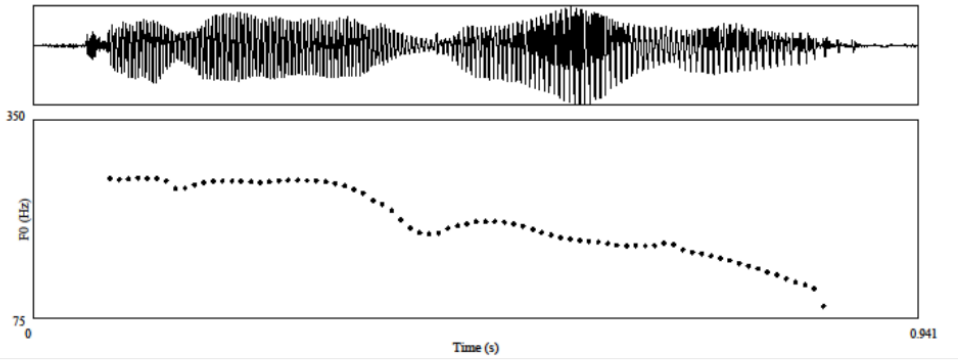

Figure 2. A Cha'palaa content question, showing an initial high accent falling to a low boundary tone [CHSF2013_01_03_S6_1388216].

Cha'palaa questions with falling intonation belong to the class of interrogatives that are marked morphologically, either through a question word, an interrogative suffix or both. Morphologically-marked interrogatives, including content questions and some polarity questions, are one of the two major types of interrogatives in Cha'palaa. The second type consists of polar interrogatives marked with a specific form of rising intonation together with final vowel lengthening (which will be illustrated below in section 4.2 with respect to requests for confirmation). Open repair initiators have falling intonation, as illustrated above, and this appears to be related to the intonation associated with content questions in contrast with that associated with polarity questions. This would make sense because the interjection strategy has a functional overlap with question word strategies for open repair discussed in the next section, and this provides some explanation for why it features falling intonation, which is cross-linguistically rare in this type of interjection.

A general point that can be made about the interjection strategy, then, is that it fits into the wider phonological system of the language, as it both targets one of the vowels of the language and one of the common forms of question intonation. It has been observed that interjections sometimes feature "sounds not found in ordinary words" (Jesperson 1924:90), but as Ameka (1992:105-106) notes, this use of the term 'interjection' applies to a broad category of communicative sounds, and not necessarily to a more restricted category of lexically-conventionalized interjections, which like the Cha'palaa repair initiator, often conform to the more general phonological norms of the language they belong to.

4.1.2 Question word strategy

Cha'palaa also uses a question word similar to the English "what?" for open repair, but only infrequently when compared to most other languages (see other papers in this issue). So while Cha'palaa conforms to the generalization that languages tend to have both interjection and question word formats, the latter is relatively marginal for this particular language. In the Cha'palaa corpus it is possible to find several

examples where the word *tin*, "what?", occasions a full repetition, resembling repair sequences with the interjection *aa*. In Extract 5, a father tells her daughter not to make the floor vibrate; when she initiates repair asking "what?" he repeats the entire predicate, dropping the vocative, which is 'dispensable' outside of sequence initial position (Schegloff 2004), and adding an account for why he is giving her a directive, pointing out that the camera (on a tripod, with two microphones on mic stands) might fall over.

Extract 5. CHSF2011_01_11S2_95626

1	A	pikishnetyuu mama	T-1
		pikish-ne-tyu-u mama	
		tremble-walk-NEG-IMP "mama"	
		Don't make the floor vibrate, daughter.	
2	B	tin	T0
		ti-n	
		what-Q	
		What?	
3	A	pikishnetyuu tya'pumi	T+1
		pikish-ne-tyu-u tya'pu-mi	
		tremble-walk-NEG-IMP fall-DECL	
		Don't make the floor vibrate, (the camera could) fall.	

Formally, this sequence resembles many repair sequences with interjection repair initiators. However, there is some evidence that the use of the question word 'what' as a repair initiator might be more limited than that of the interjection in Cha'palaa. Many cases with 'what' appear to concern some kind of object, and sometimes the response is not a repetition, as would be expected for open repair, but instead are similar cases of restricted repair in which the problem appears to be the identification of a specific referent. In Extract 6 the use of "what?" as a repair initiator elicits the provision of the direct object of the ditransitive verb 'give' that had been left unstated in the previous turn.

Extract 6. CHSF2011_02_15S5_111437

1	A	apa aantsanketu laanu mankundejuu aantsa	T-1
		apa aa-n-tsan-ke-tu lala-nu man-ku-n-de-ju-u aa-n-tsa	
		father DM SEM-do-SR 1COL-nu again-give-IPFV-PL-be-Q DM SEM	
		father, doing like that (filming) will they give us one?	
2	B	tin	T0
		ti-n	
		what-Q	
		what?	
3	A	sidiya	T+1
		sidi-ya	
		c.d.-FOC	
		a C.D.	

The lower frequency of the question word strategy relative to the interjection, combined with the evidence of its more narrow function, suggests the "what" format may not be an entirely open strategy in Cha'palaa. In languages like English there are also contexts in which "what" may target a nominal referent ("what (thing do you mean)?") rather than an utterance ("what (did you say)?"), so it is better to think of two different - if possibly overlapping - strategies based on "what", as pointed out in Dingemanse et al (2014:12-13). In Cha'palaa, seeking disambiguation of nominal referents, a restricted type of repair initiation, may be the most typical use of "what?", and instances in which participants treat it as an open repair initiator appear less common.

4.1.3 Other open strategies

In addition to strategies based on "what", Cha'palaa also features formats for repair based on "how". Unlike "what", the question word "how" is not used as a stand-alone repair initiator in the sample. However, when asking "what did you say?" Cha'palaa usually employs the "how" word rather than the "what" word, asking "how did you say?" in a more literal English translation. This format for open repair, relatively uncommon cross-linguistically (but see Dingemanse et al 2014:14), emphasizes the manner of saying rather than what was said, as English and other languages tend to. However, in cases such as Extract 7, showing a father initiating repair multiple times to his young babbling son, "how" formats in lines 4 and 6 are used in a very similar way as the interjection format seen in the same sequence in line 2.

Extract 7. CHSF2011_02_15S4_ 235380

1	A	((babbling))	T-1
2	B	aa	T0
		huh?	
3	A	kataatyuba (.) kataatyu aanu	T+1
		kata-i-tyu-ba kata-i-tyu aa-nu	
		find-become-NEG-CNTR find-become-NEG DM-LOC	
		(I) can't find it, (I) can't find it there.	
4	B	naati	T0
		naa-ti	
		how-say	
		how (did you) say?	
5	A	((babbling))	T+1
6	B	naati	T0
		naa-ti	
		how-say	
		how (did you) say?	
7	A	yuku chachee	T+1
		yuku chachi-ya	
		TITLE person-FOC	
		Mr. Chachi.	

While the format *naati* is attested in the corpus, there are only 5 cases of its use in the sample, versus 84 cases of the interjection, suggesting that this is a relatively minor format. It slightly outnumbers cases based on "what", which were only 4 in total, and long-term field research with the language confirms that speakers recognize "how" formats as more conventional for repair initiation than "what" formats.

4.2 Restricted formats

When an addressee initiating repair treats the previous turn as something they have partially understood and yet still requires some additional information regarding a specific problematic part of the turn, they have two general options. The first is to choose a format including one of the question words in Cha'palaa's interrogative system, which seeks specification or clarification of some element that is fitted to the particular question word selected. The second option is to choose a format based on one of the polarity interrogative constructions in the language, offering a potential 'candidate' solution that speaker A can either confirm or disconfirm. Together, these formats are considered 'restricted' since they ask for specific information rather than problematizing the entire turn in T-1 as open repair does. In the restricted repair cases observed in Cha'palaa, request-type formats, or those with question words, are less frequent than offer-type polarity questions (32 to 77, respectively). Both request-type and offer-type restricted repair was

sometimes accomplished through targeting some part of T-1 by repetition of elements from T-1 in T0 (2/32 to 29/77, respectively), a kind of 'format tying' (Goodwin 1990).The following sections consider the different types of restricted repair initiation in detail.

4.2.1 Seeking clarification/specification

In most cases when question words are used as all or part of repair initiation, they target a specific domain of the particular question word chosen in relation to the interactional problem being addressed. For example, question word strategies may deal with problems of recognition or disambiguation of reference within ontological categories like 'person', 'place', or 'thing'. Extract 8 shows how a repair initiation using the question word "where" targets a pronominal place reference *junu* ("there"), treating it as underspecified, and occasioning specification in T+1, both in terms of the verbal material provided ("by grandma") and a pointing gesture.

Extract 8. CHSF2011_02_15S2_4859555

1	A	apao, aamama' junu kaa chipijcha yumaa llundetsunkai	T-1
		apa-o aa-mama-chi ju-nu kaa-chipijcha yumaa llu-n-de-tsu-nkayu[2]	
		father-DP AUG-mother-POSS DM.DST-LOC DIM-madroña now get.ripe-PROG-PL-PROG-EV.SEN	
		father, there by grandma the madroñas are getting ripe	
2	B	nukaa	T0
		nuka-a	
		where-Q	
		where?	
3	A	enu aamama' junu ((pointing))	T+1
		e-nu aa-mama-chi ju-nu	
		DM.PRX-LOC AUG-mother-POSS DM.DST-LOC	
		here by grandma ((pointing))	

Figure 3. A pointing gesture forms part of a repair solution, adding more information to a specification of place reference [CHSF2011_02_15S2_4859555].

2 The plural *de-* occurs here between two elements of the progressive marker *-ntsu*. This pattern is related to the progressive's origin as the positional verb "to lie".

Problems with different ontological domains can be handled in a similar way as those about place reference, with the appropriate question word. For example, when there is problem with person reference rather than place reference this could be addressed with a "who" question instead. In cases in which a predicate has no overt arguments, a common occurrence in Cha'palaa, the involved referents may be unclear to the addressee, who can initiate repair by requesting specification with a "who" question. In Extract 9 below the verb provides some information about the referent since it is marked for plurality, but this was not enough for B to recognize exactly who the plural referents were.

Extract 9. CHSF2011_06_25S2_1350464

1	A	iba juntsa kajade detishaaka uwain juntsa	T-1
		i-ba juntsa ka-ja-de de-ti-shaaka uwain juntsa	
		1-COM DM.DST get-come-IMP PL-say-EV.BPG right DM.DST	
		with me they were also saying to go get that (raffle ticket)	
2	B	mun	T0
		mu-n	
		who-Q	
		who?	
3	A	uma aikindetsui tishaaka ((head pointing))	T+1
		uma aiki-n-de-tsu-yu ti-shaaka	
		today play-PROG-PL-PROG-EGO say-EV.BPG	
		those they say are going to play today	

The precise format of a repair initiation is tailored to the sequence and problem at hand, whether it is an issue of "who" or "where" or "what", and so on, sometimes adding other elements to question words like predicates. Here the properties of Cha'palaa grammar may come into play, because Cha'palaa features a special type of verb construction that can 'point backwards' or anaphorically pick up the characteristics of preceding verbs.[3] Extract 10 illustrates how these can be relevant for sequential relationships. In this case when a "do" verb is used after a "get" verb, the "do" verb takes the characteristics of the preceding verb, so that although a literal English translation would seem to be "What did they do?", for the participants this is hearable as "What did they get?" A's response in line 3, providing an object that someone could "get", is evidence that she is orienting to this interpretation of B's question.

Extract 10. CHSF2011_02_15S4_1897100

1	A	jayaa dekañaa ñaña	T-1
		jayu-ya de-ka-ñu-ya ñaña	
		little.bit-FOC PL-get-EV.INF-FOC sister	
		they got a little, sister	
2	B	tideken	T0
		ti-de-ke-n	
		what-PL-do-Q	
		What did they get? ("what did they do?")	
3	A	chipijcha	T+1
		madroña	
		(they got) madroña fruit	

Section 5 will expand further on how these grammatical properties of Cha'palaa interact with conversational

3 Similar 'verb classifier systems', while typologically somewhat rare, have been observed in different world areas and are particularly notable in Australian languages (e.g. Schultze-Berndt 2000); a similar system in Cha'palaa's sister language Tsafiki has been studied in depth by Dickinson (2002). In Cha'palaa there are five predicate classes, the most common of which classifies activity-type predicates like "get" above, which B targets by her combination of the "do" classifier and a question word.

practices.

4.2.2 Seeking confirmation (offering a candidate)

When an addressee initiating repair treats the previous turn as something they have partially understood and yet still require some further piece of information to be confirmed or disconfirmed, they can offer a 'candidate hearing' of all or part of the previous turn in the form of a polarity question. The consequence of selecting this format in T0 is that it gives speaker A an opportunity to confirm or deny the candidate in T+1. If the candidate is a repetition of some part of the previous turn, speaker B displays that he or she has partially understood, but still has doubts about one element. If the candidate asks for confirmation of something that was not previously stated in T0, it offers additional information that might resolve an ambiguity or similar type of problem with T-1. This section will review this sequence type, which has perhaps the narrowest space for possible format-fitting responses in T+1, for the most part limited to confirmation or disconfirmation.

In Cha'palaa grammar there are two main formal options by which speakers can form polarity questions: a morphologically-marked format that has the same general falling intonation contour described for content questions in section 4.1.1 (an intonation which does not depart notably from declarative intonation), and an intonationally-marked format with special prosodic features dedicated to polar interrogatives. As is relatively common cross-linguistically, in the case of the second interrogative format, interrogativity is associated with a pattern of rising intonation. However, the specific form is quite specific to Cha'palaa: the final vowel becomes a long vowel, and during the last word the intonation rises and holds a high tone 'plateau' over the last several syllables.[4]

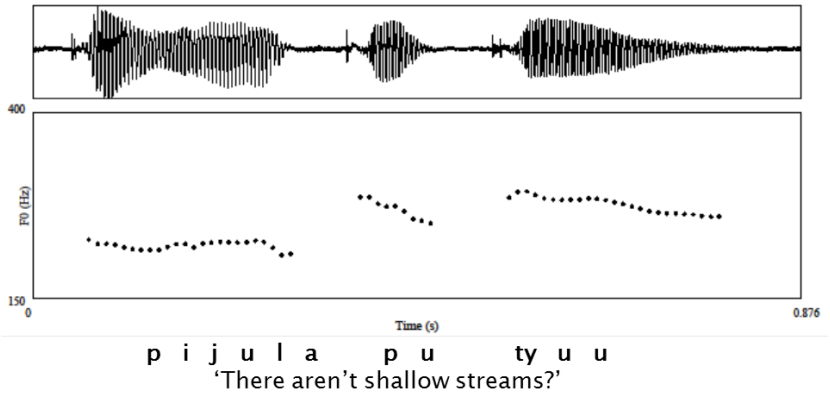

Figure 4. Cha'palaa polarity question intonation; last syllables are mid/high plateau. In selection represented above [CHSF2013_01_04S6_1145568], the speaker asks whether a certain area of river has shallow pools/streams (*pijula*) suitable for fishing; the last word, with the verb *pu*, 'be in/on', the negator *-tyu* and vowel extension to mark the interrogative, has a raised intonation relative to the beginning of the phrase.

4 The 'plateau' most often spans two or three syllables, but potentially more, usually covering the entire final constituent. This pattern is also observed in a few cases in the sample on a morphosyntactically declarative utterance, and these also make confirmation relevant, and tend to be in the addressee's domain, and functionally are questions (see Heritage 2010). The example of the contour shown in Figure 4 was not from the collection of repair initiation cases, which generally had too much background noise for good analysis (these competing noises often playing some role in the problem of interaction in the first place). This example was taken from a collection of conversational recordings made with headset microphones for phonetic analysis; predictably, the quieter, more controlled setting of those recordings tended to reduce the number of repair sequences. The contour is the same for all intonationally-marked polarity questions regardless of whether they are repair initiators.

Extract 11 gives an example of the prosodically-marked format for polarity questions that also may function as repair initiators. In lines 1 and 2 speaker A is talking about different prices that can be obtained for selling something in different markets, but does not name the actual product. However, it is well known that the main product that women like the speaker tend to sell is hand-woven baskets, so B is able to infer that this is what the others are talking about, offering the word "basket" as a candidate understanding and getting confirmation from A in T+1, closing the sequence.

Extract 11. CHSF2011_06_25S2_859221

1	A	weemujtusha, santsa mar- santa mariyasha	T-1
		wera-mujtu-sha santsa mar santa mariya-sha	
		other-place-LOC santa mar- santa maria-LOC	
		in other places, in Santa Mari- Santa Maria	
2		ma dolar mediochi kantsaa detintiee yumaa	
		ma dolar medio-chi ka-n-tsu-ya de-ti-n-ti-we yumaa	
		one dollar half-INSTR get PROG-FOC PL-say IPFV say-N.EGO now	
		they say they are buying them at a dollar and a half	
3	B	putee	T0
		pute-e	
		basket-Q	
		baskets?	
4	A	jee	T+1
		yes	

For all the languages in the sample, speakers appear to opt for candidate understandings in contexts in which they are relatively certain of the candidate they propose, since most candidates are confirmed in T+1. Of 49 Cha'palaa cases, 44 were confirmed and only 5 were disconfirmed. In the latter, less-frequent type of sequence, because A cannot or will not faithfully confirm, he or she is put in a position of having to disconfirm in T+1. Extract 12 shows a case in which speaker B had heard a stretch of conversation about catching a forest animal and, while she correctly assumes that the topic is monkeys, she gets the monkey species wrong. In T+1 speaker A does not confirm but rather offers the name of the correct type of monkey.

Extract 12. CHSF2011_01_11S3_3354477

1	A	pemee pensa kitu	T-1
		pe-mi-ya pensa ki-tu	
		die-DECL-FOC think do-SR	
		thinking it was dead...	
2	B	washuu	T0
		spider.monkey-Q	
		spider monkey?	
3	A	juyunku juyunku	T+1
		howler monkey, howler monkey	

Often speaker B can rely on the material provided by T-1 and formulate a T0 that is not a full clause, instead using elements like a single noun or a noun phrase, as seen in Extracts 11 and 12. The specific elements and formats seen in T0 can be tuned to fit the conditions established in T-1 in this and many other ways. To give another example, in Extract 13 speaker A uses a deictic word for a place reference in T-1, but speaker B does not display uptake in the next turn, instead asking for disambiguation. To do so, she selects a different deictic word (choosing the proximal, an example of the flexibility of deictic systems; Hanks 1990, 1992, 2005; Enfield 2003) and combines it with a pointing gesture, a composite utterance that offers a multimodal candidate place reference that is confirmed in T+1.

Extract 13. CHSF2011_02_15S2_5294480

1	A	jaku tisee aamamala' junkaa	T-1
		ja-ku tisee aa-mama-la-chi ju-n-ka-ya	
		DM.DST-LOC um AUG-mother-COL-POSS DM.DST-LOC-FOC	
		there at grandma's place	
2	B	enaa ((pointing))	T0
		e-nu-ya	
		DM.DST-LOC-FOC	
		here?	
3	A	nawe ((pointing))	T+1
		na-we	
		POS-N.EGO	
		there are (madroñas)	

When something like an event or state of affairs is at issue rather than a nominal referent, requests for confirmation can be full predicates, possibly with accompanying arguments and modifiers. In Extract 14 speaker A's statement in T-1 could be understood to imply a background assumption of a state of affairs that is not actually the case: it mentions the baby of a community member who is known not to have one. Speaker B's repair initiation in T0 picks out this assumption and challenges it by formulating the whole state of affairs, giving speaker A the opportunity to confirm or deny it. Speaker A then solves the problem by clarifying that she was thinking of a future potential state of affairs (effectively but - not explicitly - disconfirming T0 by offering a different state of affairs).

Extract 14. CHSF2012_08_04S3_1855655

1	A	Rocio' kawawanu jayuuba ta' ka' kuwandejutyu	T-1
		rocio-chi kawawa-nu jayu-ju-ba ta-tu ka-tu kuwa-n-de-ju-tyu	
		Rocio-POSS baby-ACC a.little-be-CNTR have-SR get-SR give IPFV PL-be-NEG	
		(we) aren't going to touch Rocio's baby	
2	B	Rociobain nakaa yumaa	T0
		Rocio-bain na-ka-a yumaa	
		Rocio-also small-get-Q now	
		Rocio also has a baby now?	
3	A	ya nakanbalaa	T+1
		ya na-ka-n-mala-ya	
		3 small-get IPFV when-FOC	
		when she gets one	

It is also possible for Cha'palaa speakers to use morphologically-marked polarity questions for restricted repair initiation, but while this type of interrogative construction is relatively frequent in conversation, for the specific function of repair initiation it is much rarer than the intonationally-based format. Of 49 total requests for confirmation in the sample, only one used an interrogative suffix instead of prosodic marking and vowel lengthening, shown below in Extract 15. In this case speaker A has asserted that a specific shaman is good at curing, but there are several different ways that Chachi shamans endeavour to cure, so speaker B offers one method, signing special curing songs, as a candidate understanding of what A intends.

Extract 15. CHSF2011_02_14S3_2984920

1	A	eya mama jambi ura' kimushee	T-1
		eye mama jambi ura-tu ki-mu-shima	
		hey mom cure good-SR do-AG.NMLZ-EV.BPG	
		hey mom, he cures really well	

2	B	tena kikiken	T0
		tena ki-ki-ke-n	
		shamanic.singing do-RED-do-Q	
		singing (shamanic songs)?	
3	A	jee	T+1
		yes	

In line 2 above the question "singing?" is marked with the interrogative suffix *-n*, and has a falling intonation pattern similar to the open formats discussed in section 4.1.1., which is also comparable to one of the standard declarative intonation contours. It is not clear exactly why morphologically-marked polar interrogatives should be used so infrequently for repair initiation relative to intonationally-marked polar interrogatives as seen in Extracts 11, 12, 13 and 14, but OIR requests for confirmation in Cha'palaa are dominated by the latter.

4.2.3 'External' type

Aside from the macro-categories of open and restricted repair initiation, there were a few cases in the sample that fit a third minor category of other-initiated repair with some similarity to restricted repair initiation: the 'external' type. External repair initiation targets 'non-core' elements which do not correspond directly to the material in T-1, but instead deal with more general areas of clarification such as the time or place being talked about. External repair sequences have a similar structure to that of other OIR sequences, the T0 turn stopping progressivity until T+1 is produced, but T+1 does not directly repeat or further specify elements present in T-1; instead it adds some other piece of information. In Extract 16 - which is actually a direct continuation of the sequence shown in Extract 12 above - speaker A is talking about monkeys, but are only found in a few places in the area, so speaker B asks for more information about the location of the monkeys being referred to. It should also be noted that B combines two OIR formats here, as T0 also includes an interjection (a 'double' repair initiation; Kim 1999). The place reference in T+1, the name of the Chachi people's ancestral homeland *Tutsa'*, responds to the 'where' question.

Extract 16. CHSF2011_01_11S3_3355980

1	A	juyunku juyunku	T-1
		howler monkey, howler monkey	
2	B	aa nukaa	T0
		huh? where?	
3	A	yala-' Tutsa' ji-n-sha	T+1
		3PL-POSS Tutsa' go-IPFV-LOC	
		them going to Tutsa'	

External OIR was only represented by 3 cases in the whole 211-case sample, making it much rarer than other types of OIR. This may be because general information about the temporal and spatial frame of turns, while not explicitly specified in each turn, is often recoverable by participants involved over the course of the interaction. Part of the confusion in Extract 16 is because speaker B had recently re-joined the conversation and had lost track of what the others were talking about.

5 Morphosyntactic devices involved in OIR sequences

While the general organization of repair sequences is generic across languages, with the same basic three-turn structure and the same distinction between open and restricted, the grammar of each individual

language structures the formal options for repair initiation in subtle ways (leading to different 'collateral effects'; Sidnell and Enfield 2012). This section discusses several ways in which speakers apply the morphosyntactic possibilities of Cha'palaa in their selection of formats for repair initiation, and some of the consequences of these practices. To begin with, the basic nominative-accusative alignment of Cha'palaa, its predicate system's argument structure, and the case marking system provide certain affordances for repair initiator format selection. In Extract 17 the trouble-source is a verb in T-1 which is transitive yet has no overt undergoer argument. There is no grammatical obligation to specify the undergoer when it can be determined through context, so the problem here is a pragmatic error, not a grammatical one as it might be in languages that require overt arguments. The repair initiator combines the question word "what" with the accusative case marker to make it clear that it is the ambigous undergoer argument that is at issue; it is quickly provided by speaker A in T+1. This type of repair, which targets elements that could have been added to the T-1, have been called 'appendor questions' (Schegloff et al 1977; also see Hayashi and Hayano 2013).

Extract 17. CHSF2012_01_07S2_1004304

1	A	Germa kalaree?	T-1
		Germa ka-lare-e	
		Germa get-CAUS-Q	
		(Can) Germa take a picture?	
2	B	tinaa	T0
		ti-nu-ya	
		what-ACC-FOC	
		of what?	
3	A	ñaa	T+1
		ñu-ya	
		2-FOC	
		yourself	

Many repair sequences deal with the identification of a particular nominal referent. In a number of language areas around the world it is common to find grammatical resources for categorizing nominal elements. Such 'nominal classifier systems' group the noun class into sub-classes, sometimes based on identifiable semantic criteria (Craig 1986, Aikhenvald 2003, Senft 2008, Seifart 2010). These types of systems are fairly common in South America, and Cha'palaa's particular variant applies mainly to three-dimensional objects of small or intermediate size, classifying them by their shape. When a referent has already been mentioned or otherwise made known, it is possible to use a classifier to anaphorically refer to it. In Extract 18 speaker B used the spherical classifier *puka* (from "fruit") to request confirmation of the previous turn. There are various objects that could come from a coconut palm, and B uses a classifier to confirm that it was the spherical "fruit" of the tree that was mentioned.

Extract 18. CHSF2011_02_14S3_3133175

1	A	jee yumaa Dairachee coco ma puka nasaa yumaa	T-1
		jee yumaa Daira-chi-ya coco ma puka na-sa-ya yumaa	
		hey now Daira-POSS-FOC coconut one CL:sphere POS-PURP now	
		hey now from Daira (he/she) was carrying one [sphere-class] coconut	
2	B	pukaa	T0
		puka-ya	
		CL:sphere-Q	
		sphere	
3	A	mm	T+1
		mm hm	

Cha'palaa grammar not only has a system for classifying nouns, as was already discussed regarding Extract 10 above, it also features a verb classification system that groups all predicates in the language into one of five verb classes. The classifiers consist of verb roots that occur can occur as parts of complex predicates in their respective classes, or they can occur alone and form anaphoric links to other predicates in those classes. For example, in Extract 19 T-1 includes the predicate *pajteki* which consists of the coverbal element *pajte* (fall-CAUS) and a generic verb *ki* (an allomorph of *ke*, "do") that acts as the finite predicating element and agrees with the "do" class of predicates which apply mainly to activity-type events. In T0 speaker B pursues a person reference by asking "who did?", selecting a format based on the specific *ke* classifier. For comparison, in Extract 20 turn T-1 is based on a motion verb *ji*, which falls into the change-of-state verb class, members of which agree with the classifier *i* ("become"). Accordingly, the repair initiator in T0 is based on this specific classifier. The repair initiators in Extract 19 and Extract 20 resemble each other closely in that both deal with a person reference, but they vary with respect to how Cha'palaa's predicate system distinguishes the activity class of predicates and the change-of-state class.

Extract 19. CHSF2012_08_04S3_1792170

1	A	delee pajtekishin	T-1
		dele-ya pajte-ki-shima	
		piece-FOC fall-CAUS-do-EV.BPG	
		(he) broke it making it fall	
2	B	mu ken	T0
		mu ke-n	
		who do-Q	
		who did?	
3	A	Andi Andi	T+1
		Andi, Andi	

Extract 20. CHSF2012_01_07S2_174700

1	A	arasaa chipeenu jimiren maantyuka	T-1
		arasa chi-pele-nu ji-mi-ren ma-ja-n-tyuka	
		arasa tree-below-LOC go-DECL-PRECIS again-come-IFV-Q.TAG	
		(he) came through the arasa tree, right?	
2	B	mu in	T0
		mu i-n	
		who become-Q	
		who did?	
3	A	jimu ruku, miimu miimu ruku in palaachee	T+1
		ji-mu ruku ma-ji-mu ma-ji-mu ruku in palaa-chi-ya	
		go-AG.N man again-go-AG.NMLZ again-go-AG.NMLZ man 1POSS language-INSTR-FOC	
		the man who went, I mean to say, the man who went back	

The examples above cover some basic questions of format selection, but there are many other particularities about how Cha'palaa's grammatical system interacts with the repair system that cannot be addressed here. Turn T+1 is also sensitive to the affordances of Chaa'palaa grammar, as not only commonly 'dispensable' items such as vocatives can be omitted when speaker A repeats T-1 (e.g. one case[5] in which the vocative *apa*, "father", is omitted in T+1 while all other material is repeated; see Schegloff 2004 on the dispensability of vocatives), but Cha'palaa's licensing of zero-argument predicates allows more core elements like pronouns to be omitted in repetition as well (e.g. a case[6] in which the first person pronoun is not repeated in T+1 along with the predicate

5 Unique identifier CHSF2011_02_15S4_149550.

6 Unique identifier CHSF2011_02_15S5_1679656.

from T-1, and a case[7] in which a similar pattern is seen with the second person pronoun). Ongoing descriptive work with Cha'palaa will be able to address these and other related issues in more detail in the future.

6 Actions

Speakers in interaction can exploit the repair sequence format for accomplishing other actions beyond addressing the types of problems shown in the excerpts in previous sections. For example, sometimes progressivity is held up not because there was a problem of hearing or understanding but instead as a way for speaker B to register surprise or disbelief. There is a pressure for displaying the receipt of newsworthy or notable information in the next turn that works similarly to the pressure to resolve interactional trouble reflected in OIR sequences. In Extract 21 speaker A is talking about a conversation with another person in T-1 when speaker B asks for confirmation in T0, but in T+1 speaker A does not produce the expected confirmation, instead orienting to a stance of incredulity.

Extract 21. CHSF2011_01_11S3_2970840

1	A	Albertun tiyu ya' shinbunu (tintsu)	T-1
		Alberto-nu ti-yu ya-chi shinbu-nu ti-n-tsu	
		Alberto-ACC say-EGO 3-POSS woman-ACC say-IPFV-PROG	
		I said Alberto was saying to his wife	
2	B	tsantii	T0
		tsan-ti-i	
		SEM say-Q	
		he said that?	
3	A	Tieenkinaa Esmeralda jinu jun	T+1
		ti-ya-n-ki-nu-ya Esmeralda ji-nu ju-n	
		what-FOC-N-do-INF-FOC Esmeralda go-INF be-Q	
		what are they going to do going to Esmeraldas?	

The participants in sequences like Extract 21 are not dealing with typical problems of repair, but are instead engaged in managing the common ground and monitoring for surprising or untoward information. Cha'palaa has several conventionalized ways to display news receipt, but most of these do not share many resemblances with the repair initiator formats discussed in this paper. Other languages have formats for news receipt that look more like repair initiation; Cha'palaa speakers sometimes borrow these formats from their main contact language Spanish. Extract 22 shows a case of such borrowing, in which speaker B questions the seriousness of T-1 with the Spanish term *serio* ("really/seriously?"), produced with the interrogative prosody and vowel lengthening described in section 4.2.2.

Extract 22. CHSF2011_02_15S3_1203540

1	A	dijeru'tubain majui kee kaakenuuwe tinkai	T-1
		dijeru' tu-bain ma-jui kera kare-ke-nu-ju-we ti-nkayu	
		fast earth-also again-fill see CAUS-do-INF-be-N.EGO say-EV.SEN	
		it is fast to fill up the earth as well	
2	B	serioo	T0
		serio-o	
		serious-Q	
		really?	
3	A	mm	T+1
		mm hm	

7 Unique identifier CHSF2011_02_15S2_5533369.

Another function of OIR in interaction can be to display a disaffiliative stance in cases of disagreement (Schegloff 2007:70-72, 103). Speakers may initiate repair as a way to initiate disagreement, with the affordance that the repair solution in T+1 provides an opportunity for speaker A to modify his or her claim and perhaps resolve the disagreement more smoothly. In cases in which A does not back down, however, the repair sequence can be thought of as a 'pre-disagreement' that produces the conditions for disagreement in the turn following T+1. Extract 23 shows this phenomenon, in which A makes an impersonal deontic statement that could be taken as a request; B rejects the request, but not before initiating repair to elicit an on-record statement by A that he was indeed requesting that she do the task herself. The disagreement then occurs immediately following T+1.

Extract 23. CHSF2011_02_15S5_3076000

1	A	kepentyu jei jinuushu tsananuu	T-1
		kepe-n-tyu jeke ji-nu-ju-shu tsa-na-nu-u	
		get.late-IPFV-NEG fast go-INF-IRR SEM-POS-INF-Q	
		It's not dark yet, hey, (someone) should go (before) then.	
2	B	mun	T0
		mu-n	
		who-Q	
		who?	
3	A	ñaa	T+1
		ñu-ya	
		2-FOC	
		you	
4	B	mubaa jinaanka maali jeetenba	
		mu-ba-ya ji-na-a-nka maali jele-ten-ba	
		who-also-FOC go-POS-EGO-SPEC alone fear-feel-CNTR	
		who could I go with, alone I'm afraid?	

Consider again Extract 14, presented in section 4.2.2.; in that case speaker A appeared to imply in T-1 that an acquaintance had a baby and was then speaker B challenged this implicature in T0. If A had not backed down but instead had affirmed the implicature of her statement, the sequence in Extract 14 might have led to a disagreement like that in Extract 23. This comparison helps to see one of the affordances of repair as a pre-disagreement, because it offers an opportunity to avoid on-record disagreement altogether.

7 Conclusion

After considering the facts of Cha'palaa's OIR system presented above, it is now possible to evaluate how the language fits into comparative pragmatic typology. The finding of the comparative project is that some basic formal elements of OIR sequences recur in all or nearly all spoken languages (with close parallels in sign languages). These include the formats for repair in T0, with a distinction between open repair initiators (with a further difference between interjections and question words) and restricted repair initiators (with a distinction between offer-type polarity questions and request-type content questions). These basic similarities emerge due the way that speakers of diverse languages tend to find similar solutions to similar recurrent problems. However, it is also possible to find ways in which Cha'palaa patterns distinctively, with respect to both the forms and their frequencies. Formally, Cha'palaa is one of only two languages in the sample whose interjection has falling intonation, fitting into Cha'palaa's phonological system. Examples highlighting specific morphosyntactic resources like noun and verb classifiers show how OIR practices are adapted to the language's morphosyntax as well. In addition, Cha'palaa speakers used their formal resources at different frequencies from their cross-linguistic counterparts, notably having the highest rate of

open repair initiation. So while the Cha'palaa sample reflects many general, language-independent factors that apply to all the languages studied, local circumstances and conventions also shape how Cha'palaa speakers address problems in interaction.

This tension between generic characteristics and local specificities is inherent to OIR practices, since every interactive system is under common pressures for dealing with problems of hearing or understanding, but at the same time every society has their own cultural and linguistic background that structures everyday interactions. The types of information dealt with in Cha'palaa repair sequences certainly resonate with the particularities of Chachi life: the lost Chachi homeland Tutsa', the skills of shamans, the economy of basket-weaving, species of plants and animals of the tropical forest, as well as social information regarding other members of the community (not to mention newer technologies such as compact discs or cameras). Some of these topics might stand out in other languages and contexts, but for Chachi people they are mundane and part of everyday conversation. So while the repair system is in one sense a generic mechanism that fulfils a basic function in face-to-face communication, in another sense it facilitates a great range of diverse cultural practices accomplished with diverse grammatical systems according to local preferences and conditions.

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Key

ACC accusative, AG.NMLZ agentive nominalizer, AUG augmentative, CAUS causative, CL classifier, CNTR counter-assertive, COL collective, COM comitative, DECL declarative, DM demonstrative, DM.DST distal demonstrative, DM.PRX proximal demonstrative, DP distance prosody, DIM diminutive, EGO egophoric, EV.BPG best possible grounds evidential, EV.INF inferential evidential, EV.SEN sensory evidential, FOC focus, INTJ interjection, IPFV imperfective, IMP imperative, INF infinitive, INSTR instrumental, IRR irrealis, LOC locative, NEG negation, N.EGO non-egophoric, PL plural, POS positional, POSS possessive, PRECIS precision, PROG progressive, PURP purposive, RED reduplication for iterative, SEM semblative, SPEC speculative question, SR same referent, Q interrogative, TAG.Q tag question

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