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Research Article

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Other-initiated repair in Siwu

Abstract: This article describes the interactional patterns and linguistic structures associated with other-initiated repair in Siwu, a Kwa language spoken in eastern Ghana. Other-initiated repair is the set of techniques used by people to deal with problems in speaking, hearing and understanding. Formats for repair initiation in Siwu exploit language-specific resources like question words and noun class morphology. At the same time, the basic structure of the system bears a strong similarity to other-initiated repair in other languages. Practices described for Siwu thus are potentially of broader relevance to the study of other-initiated repair. This article documents how different prosodic realisations of repair initiators may index social actions and features of the speech event; how two distinct roles of repetition in repair initiators are kept apart by features of turn design; and what kinds of items can be treated as 'dispensable' in resayings. By charting how other-initiated repair uses local linguistic resources and yet is shaped by interactional needs that transcend particular languages, this study contributes to the growing field of pragmatic typology: the study of systems of language use and the principles that shape them.

Keywords: other-initiated repair; conversation analysis; pragmatic typology

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Every language has to provide its speakers with ways to deal with problems of speaking, hearing, and understanding: repair (Schegloff, Jefferson, and Sacks 1977). The focus of this paper is on *other-initiated repair*: repair sequences jointly produced by participants in interaction. Though there is a considerable literature on repair in general and on other-initiated repair specifically (for recent overviews, see Hayashi, Raymond, and Sidnell 2013; Kitinger 2013), much research so far has focused on English or other major languages (but see Moerman 1977; Schegloff 1987; Dingemans, Blythe, and Dirksmeyer 2014; and for the West-African area, the work by Obeng 1992; 1999 on Akan). This paper describes the interactional patterns and linguistic structures associated with other-initiated repair in Siwu, a Kwa language spoken in Eastern Ghana.

Answering to universal interactional needs, yet implemented with local linguistic resources, other-initiated repair is an excellent domain for crosslinguistic investigation. In the Siwu corpus, other-initiation of repair occurs on average about once every minute, underlining its crucial role in the real-time negotiation of mutual understanding. Without repair and other forms of grounding (Clark and Brennan 1991), our conversations would be constantly derailed and our joint efforts would be thwarted. As we see below and elsewhere in this special issue, other-initiated repair provides a well-defined and stable context for comparison within and across languages. This makes it possible to draw up inventories of formats for other-initiation of repair, and to compare these formats as items in a system, or options in a paradigm (Halliday 1971).

Language is used first and foremost in everyday social interaction. The conversational structures associated with this deserve our analytical attention as much as the finer details of phonology, lexis, and

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morphosyntax. By describing other-initiated repair in Siwu, this article contributes to the description of the linguistic structure of Siwu, but also to the emerging field of pragmatic typology: the comparative study of systems of language use and the principles that shape them (Dingemanse, Blythe, and Dirksmeyer 2014). An underlying goal is to make the science of language accountable to language use in all its aspects.

1 The Siwu language

Siwu is spoken in 8 villages in the Akpafu and Lolobi traditional areas north and north-east of Hohoe in Ghana's Volta Region. Traditionally considered part of the typological-geographical grouping of *Togorestsprachen* (Togo Remnant Languages), it belongs to the *na*-Togo branch of Kwa. Siwu (ISO 639-3: akp) is spoken by about 15,000 people, who call themselves the Mawu and their land Kawu. The exonyms Akpafu and Lolobi are used by the neighbouring Ewe people and in government communications.

Siwu is an SVO language in which grammatical relations are established primarily by word order, supported by subject cross-referencing on the verb. Siwu nouns are exhaustively classified into ten morphological noun classes which form nine different singular/plural combinations. Within the noun phrase, modifiers follow the head and possessed follows possessor. Phonologically, Siwu has twenty consonants and a vowel system with seven oral and five nasal vowels. Unlike its closest relatives, Siwu has no vowel harmony, though traces of an ATR vowel harmony system are preserved in vowel co-occurrence restrictions within roots. Syllables can bear a low, mid, high, or falling tone. Statements usually have a final boundary fall intonation, while questions can be prosodically marked by means of a suspended-fall contour (for content questions) or final vowel lengthening with a level contour (for polar questions), though these are preferred intonation contours only and there is no simple one to one mapping from intonation form to function. While the earliest lexical records of Siwu go back over a century, work on phonology and morphosyntax is more recent: there are sketch grammars of Siwu as spoken in Lolobi (Ford and Iddah 1973) and Akpafu (Dingemanse 2011 Ch. 5), and Bible translation work by GILLBT (a local branch of SIL International) has resulted in some work on phonological and grammatical topics. The current study is based on Siwu as spoken in Akpafu-Mempeasem.

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 introduction for further information). Here are the key properties of the data:

Table 1: Key properties of the data collected for this study

-
- Recordings were made on video.
 - Informed consent was obtained from 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 bias from over-representation of particular interactions or speakers.
-

The Siwu data in this study were sampled from a set of recordings in the village of Akpafu-Mempeasem in Ghana made by the author between 2007 and 2012. A total of 8 interactions were sampled for this study, with between 10 and 30 minutes sampled from each interaction, totalling 3 hours and 20 minutes of

conversation. The number of sequences of other-initiated repair differed per segment (11 cases on average with a standard deviation of 5.8) and per interaction (26 cases on average with a standard deviation of 12). Overall frequency is of course not directly relevant for participants in interaction (Schegloff 1993), but does show the importance of the phenomenon.

The collection of 210 other-initiations of repair analysed in this article was compiled by means of a procedure designed to ensure comprehensive coverage. An exhaustive search through the sampled interactions resulted in an initial collection of 289 possible cases of other-initiations of repair and related practices and actions. Through a process of systematic exclusion (detailed in Dingemanse & Enfield, this volume), the collection was then narrowed down to 210 cases of genuine other-initiated repair. Many of the excluded sequences are cases in which a participant poses a question about some prior talk (as a repair initiation does), yet not to indicate some trouble of hearing or understanding but in the service of some other action, for instance responding to news in a way that shows surprise or disbelief. Common devices used for such question-formatted news receipts include particles like *aa?* “oh?”, *gbãã* “really?”, *ẽẽ?* “yeah?”, all with a mid-high-mid intonation contour. Since participants in conversation tend not to treat these items as indicating problems in hearing or understanding, they are not included in the collection of genuine cases of other-initiated repair. In section 6, I discuss a number of further phenomena that shed light on the periphery of other-initiated repair.

3 The sequential structure of other-initiated repair

3.1 Minimal sequence

Extract 1 shows the basic structure of a sequence of other-initiated repair (Schegloff, Jefferson, and Sacks 1977). The key point in the sequence is the turn in which repair is initiated. That turn (T0) points back to some prior talk as problematic (T-1) and points forward to a projected repair solution (T+1). This example, and numerous others below, shows that the basic sequence type of other-initiated repair is well-attested in the Siwu language:

Extract 1: Neighbours_4875900

1	((unrelated talk and laughter))	
2	Mum <i>Sesi su ɛ̀ɛ̀ ɪraɔ̀ tã me</i>	T-1
	PSN take HES thing:INDEF DAT me	
	<i>Sesi take uh: the thingy for me</i>	
3	Sesi <i>be:</i>	T0
	<i>what:Q</i>	
	<i>what</i>	
4	Mum <i>su kadadĩsẽĩbi bɔ me.</i>	T+1
	take small.pot.DIM bring me	
	<i>take the small pot and bring it to me.</i>	
5	Sesi ((complies by bringing small pot))	

At line 1, Mum addresses a request to Sesi to get “the thingy”. Sesi initiates repair using *be* “what?”, a format discussed in more detail in §4.1.2 below. In response to the repair initiation, Mum repeats her request, providing further details, after which Sesi complies with it.

Most examples below will be laid out like this one, and the main focus is on the turns involved in the action of other-initiated repair (trouble source, repair initiation, and repair solution). However, it is important to keep in mind that other-initiated repair does not just happen in isolation: it emerges in the context of a larger conversational sequence and points out some trouble that stands in the way of completing that sequence. With regard to this larger sequence, repair initiation and solution together form

a side sequence (Jefferson 1972) – an aside in which the participants negotiate their mutual understanding before continuing the main sequence.

3.2 Non-minimal sequences

A sequence of other-initiated repair can take more than the minimal three turns. There are at least two distinct ways in which this can happen (Enfield, Drew, and Baranova forthcoming). Most common is the case in which the first possible repair solution is treated as not sufficient by the person initiation repair, leading to multiple successive rounds of repair initiations. Less common is the case in which the repair initiation becomes itself a source of trouble for the original speaker, who initiates repair on it.

Of the first, most common type, most sequences of other-initiated repair take one extra round, and only some take two (i.e. resolving the trouble takes two or at most three repair initiations in total). Very few cases take more than this, and those that do tend to deal with not one but multiple sources of trouble. Extract 2 provides an example of a trouble that is resolved after three successive attempts. Two men are talking about what they have been up to on the farm recently. After a brief lapse, Ogbe asks Kuma what “that one” is doing (line 2), using an underspecified person reference that leads to a complex sequence of successive repair initiations and solutions. Ogbe’s initial question is eventually responded to with “he’s around” (line 11); meanwhile, the intervening turns provide a good view of the internals of the machinery of other-initiated repair.

Extract 2: Two_men_2_698800

1	(7.0)	
2	Ogbe ne kɔrɔ̃ fɔ̃ sɔ be ñgóm̃m̃d̃ kà ò to ò bára kɔrɔ̃: so now you said what that.one IMM 3SG PROG 3SG do now:Q <i>So now what did you say is that one doing right now?</i>	T-1
3	Kuma ñna: who:Q <i>who?</i>	TO ₁
4	Ogbe èè fɔ̃ ɔ̃bi: (0.5) b̃ēr̃ēr̃ĩ nyɔ̃ar̃è góm̃m̃d̃, èè: HES your child male.DIM second that.one HES <i>uh your uh (0.5) second born boy that one, uh:</i>	T+1 ₁
5	(0.8)	
6	Kuma èè Kofi: HES PSN:Q <i>uh, Kofi?</i>	TO ₂
7	(0.6)	
8	Ogbe Kófi. Kòfi koso eber̃e [be ũ PSN PSN young or what 3SG.TP <i>Kofi. Kofi junior or whoever</i>	T+1 ₂
9	Kuma [Kòfi koso: PSN young <i>Kofi junior?</i>	TO ₃
10	Ogbe ((head nod))	T+1 ₃
11	Kuma ɔ̃ pia. 3sg be.located <i>He's around.</i>	

This sequence gives us a preview of a number of the practices and devices for repair initiation available in Siwu: question words like *ñna* ‘who?’, candidate understandings like *Kofi?*, and repetition, as in *Kofi koso* ‘Kofi junior’. It shows how formats for repair initiation can be ordered with respect to each other: we see a cumulative narrowing from a question word to a candidate understanding, and from there to a yet more

specific candidate understanding. Along with this there is a gradual shift in the division of labour: while the repair initiations become successively longer as they narrow down, the repair solutions become more minimal as the sequence goes on, culminating in one of the leanest forms of confirmation possible, a head nod.

Three successive repair initiators and their proposed solutions

K: ‘who?’ O: ‘uh your uh (0.5) second-born boy that one’
 K: ‘uh Kofi?’ O: ‘Kofi. Kofi junior or [whoever]’
 K: ‘[Kofi junior?’ O: ((head nod))

As this sequence shows, repair initiations and solutions build upon each other until the point is reached where the participants are satisfied that they have built enough common ground to resume; and the ordering of repair initiators points to a preference to be as specific as possible (Schegloff, Jefferson, and Sacks 1977; Clark and Schaefer 1987). Other-initiated repair provides a window onto the joint work of reaching mutual understanding, and non-minimal sequences show how this understanding is built bit by bit.

4 Formats for other-initiation of repair

This section describes and exemplifies the formats that Siwu speakers use for initiating repair. Although it would be conceivable for there to be just one or a few formats for initiating repair, we find that there is quite a wide range. These formats differ in several ways according to what linguistic resources they use and how they relate to prior and next turns (Dingemanse & Enfield, this issue). Two important dimensions of variation involve how the repair initiation targets the trouble in a prior turn and what kind of response the repair initiator makes relevant in the next turn. A number of broad types for repair initiation are distinguished in the comparative project (Table 2). The formats for other-initiation of repair in the Siwu corpus build on these types —from interjections to question words to repetition— but also show language-specific patterns.

Table 2: Basic types of formats for other-initiation of repair

Open. ‘Open’ repair initiators are requests that 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 question words, often in combination with partial repetition.
- *Offer type (providing a candidate).* 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’.

An exhaustive sampling of the Siwu corpus underlying this study shows that all of these formats occur, but with quite large variations in frequency (Table 3). Four formats account for 93% of all repair initiations: interjection, question-word (open type), restricted request, and restricted offer. Several of the format types have subtypes with special linguistic formatting. All are exemplified and discussed in this article.

One method of repair initiation included here is “visible only”. This refers to initiations of repair done non-verbally, for instance by means of a quizzical look or a change in posture. The single example

occurring in the corpus is given in Extract 5. While entirely non-verbal repair initiations are rare in the Siwu corpus, many verbal repair initiations are accompanied by discernible head movements and facial expressions such as furrowed or raised eyebrows. Head movements appear to be relatively evenly distributed over the different formats, facial expressions seem to display a slight skewing towards open type formats.

Table 3: Types of repair initiators and their frequency in the Siwu corpus

Type	Subtype	Frequency	Proportion	Selected examples
Open	Interjection	26	12.4 %	3, 5, 23
	Question-word	16	7.6 %	1, 8, 9
	Formulaic	2	1.0 %	10
	Visible only	1	0.5 %	5
Restricted	Request (asking specification)	55	26.2 %	12, 14, 16
	Offer (providing a candidate)	99	47.0%	2, 17, 18
	Alternative question	2	1.0 %	19
	Complex formats (combinations)	9	4.3 %	7, 20
Total		210	100.0 %	

4.1 Open formats

4.1.1 Interjection strategy

The most common open format in Siwu is an interjection comparable to ‘Huh?’. The vowel of this interjection is within the low-front-central range, most commonly /ã/ (as in Extract 3, line 4), but sometimes also /ɛ̃/ (as in Extract 4, line 3). Both of these are common vowels in Siwu.

Extract 3: Maize1_1017013

- 1 Yawa mm, nɛ ũ í[ba nɛ: ((calling from the distance)) T-1
INTJ TP 3SG NEG:come TP:Q
mm, so he didn't come?
- 2 Aku [iɔrò
it:PF:finish
it's done.
- 3 Dime ɡɔ ɔ̃nya[ɔ̃bara ɔ̃ɛ̃
when 3SG:PF:look 3SG:do 3SG:put
since he's put it down.
- 4 Ella [ã: ɾ
INTJ.OIR
hah? T0
- 5 Yawa nɛ ũ íba nɛ: ((calling from the distance)) T+1
TP 3SG NEG:come TP:Q
so he didn't come?
- 6 Ella ɛ̃í, ũ iba.
yes 3SG NEG:come
indeed he didn't come.

Extract 4: Maize3_700994

- | | | |
|---|--|-----|
| 1 | ((little boy Ben jumping around dangerously close to large steel pan)) | |
| 2 | Aku à ta àa su kanya à tui ɔpò iso.
you PROG you FUT take mouth you hit pan on
<i>you'll be falling with your teeth on the pan.</i> | T-1 |
| 3 | Ben ẽɾ
INTJ.OIR
<i>huh?</i> | T0 |
| 4 | Aku mɛ̀ sɔ: nɛ, à ta àa su kanya à tui ɔpò iso.
1SG QT TP, you PROG you FUT take mouth you hit pan on
<i>I'm saying, you'll be falling with your teeth on the pan.</i> | T+1 |

The most common kind of response to the interjection is a repeat of the trouble source turn, sometimes with slight modifications. In Extract 3, the repair solution is a near-verbatim repetition. The only thing not repeated is the interjection *mm*. This item linked the trouble source turn to its sequential environment, but with the repetition putting this turn out of its original context, the link itself is no longer relevant, a phenomenon discussed in §5 below. In Extract 4, the repair solution is a full repeat prefaced with *mɛ̀ sɔ* 'I said'. The repetition (in both cases) and the prefacing of 'I said' (in the latter) show that the interjection is treated here as primarily indicating a problem of hearing. Extract 3 provides direct evidence of the trouble in the form of the overlapping speech from Aku at line 2, which partially obscured Yawa's turn.

While open-mouth versions of the interjection are most common, a closed-mouth form like *m:ɾ* is also found, as seen in Extract 5 and Extract 6. These cases are also further illustrations of the fact that repair solution in response to the interjection are often full repetitions with slight modification. In Extract 5, Afua's repair solution repeats the core of the trouble source turn, but adds a quotation marker and leaves out a dependent clause, thus clarifying and simplifying the trouble source turn (line 3). At lines 4-5, further clarification of the underspecified person reference is prompted by the puzzled look of Beatrice, which she holds through lines 2-4. This method of repair initiation is akin to the "freeze-look" response described by Manrique (this issue) for Argentine Sign Language.

Extract 5: Compound4_2337748b

- | | | |
|---|--|------------------|
| 1 | Afua ɔ́ sí ɔ́ de ɔ́ sate si ɔ́ kpi.
3SG.TP SUBJ 3SG be 3SG.POSS owner if 3SG die
<i>she should be the responsible one if he dies</i> | T-1 |
| 2 | Beatrice m:ɾ ((puzzled look: furrowing of eyebrows))
INTJ.OIR
<i>m:?</i> | T0 |
| 3 | Afua sɔ́ ɔ́ sí ɔ́ de ɔ́ sate.
QT 3SG.TP that 3SG be 3SG.POSS owner
<i>{he said} that she should be the responsible one.</i> | T+1 |
| 4 | Beatrice ((continues to hold puzzled look)) | T0 ₂ |
| 5 | Afua ɔ́ ɔ́nyì.
his mother
<i>his mother.</i> | T+1 ₂ |

In Extract 6, Kofi's repair solution includes all of the core elements from the prior turn but is produced with greater fluency, showing it to be an improved redoing of the earlier disfluent turn in response to Afua's closed-mouth interjection *m:ɾ* 'm:?'.

Extract 6: Compound4_1917390

- 1 Kofi ne, ifɛ̀rɛ̀[fɛ̀rɛ̀ ne mí]wà ne bɔso- akpeti atã iyèbi? T-1
 TP porridge TP 2PL:cook TP why 2SG:chip.off 2SG:give machine
so, the maize porridge you made, why- did you give a bit to the machine?
- 2 Beatrice [(x xx x)]
 (x xx x)
- 3 Afua m:↗ T0
 INTJ.OIR
 m:?
- 4 Kofi ifɛ̀rɛ̀fɛ̀rɛ̀ ne akpeti atã iyèbi? T+1
 porridge TP 2SG:chip.off 2SG:give machine
the maize porridge, did you give a bit to the machine?
- 5 Afua loyarà ne kà ba kpeti tã ne.
 1SG:forget TP IMM come chip.off give TP
I forgot, come get some for {it}
- 6 ((all laugh))

The coexistence of open and closed-mouth forms of the interjection for other-initiation of repair raises the question whether there may be interactional or situational differences between them. For instance, the forms might be used to do different interactional work (in addition to the repair-initiating work that they have in common). Investigating this question in English, Schegloff noted, “I have not been able to establish any interactionally relevant differences between the open and closed realization” (Schegloff 1997:508). However, an interactional difference is not the only possibility; forms may also vary as a function of what we might call situation-dependence in Goffman’s sense of situation (Goffman 1964). In the Siwu video corpus, the closed-mouth realisation is only found when both speakers are quite close to each other (as in Extract 5 and Extract 6) whereas the open-mouth forms are also used when speakers are at relatively larger distances from each other. This would support an analysis of the closed-mouth form as an articulatorily reduced form of the more common open-mouth version, designed for recipients at close proximity – perhaps analogous to the way in which limb extension in hand wave greetings systematically varies with interpersonal distance (Kendon 1990).

All tokens of the repair-initiating interjection in Siwu have rising intonation (↗). This intonation may tap into the cross-linguistically common link between high or rising pitch and functions like appeal and uncertainty (Karcevski 1941; Ohala 1984; Gussenhoven 2004). But within the larger Siwu system of intonational contours with pragmatic functions, it also occupies a special place. It is in most direct opposition to the usual pitch pattern of statements in Siwu, which is a final boundary fall (Table 4). But it is also different from the preferred intonation contour of content questions (suspended fall) and polar questions (level). Everything but a statement, and yet unspecified as to question type, the repair-initiating interjection is best described as a maximally underspecified question word (Dingemans, Torreira, and Enfield 2013).

Table 4: Some pragmatic functions and preferred intonation contours in Siwu

Pragmatic function	Preferred intonation
Statement	fall
Content question (WH)	suspended fall
Polar question (yes/no)	level
Interjection (ã↗ ‘huh?’)	rise

4.1.2 Question word strategy

Another common open type format in Siwu is a question-word based format *be*: ‘what?’. Like in most other spoken languages, this open format is built on the question word corresponding to the thing category (Enfield et al. 2013). What makes the format open is the fact that, like the repair-initiating interjection, it merely indicates some prior talk as problematic while leaving open the nature or location of the trouble. That the interjection and the question word can be functionally similar is seen in the following example, where Ben produces a “double” (Kim 1999) combining both formats. Yao’s repair solution in response to this double is a full repetition of the trouble source turn, showing that he treats it as indicating a problem of hearing.

Extract 7: Break_78305

- | | | | |
|---|-----|--|-----|
| 1 | Yao | aye ta àtsutsue màgbã.
snake PROG it:PLUR:bite crabs
<i>The snake was munching on the crabs.</i> | T-1 |
| 2 | Ben | ã ʔ be:
INTJ.OIR what:Q
<i>huh? what?</i> | T0 |
| 3 | Yao | aye ta àtsutsue màgbã.
snake PROG it:PLUR:bite crabs
<i>The snake was munching on the crabs.</i> | T+1 |

Extract 8 shows the same question word used on its own. Bella and Afua are telling riddles. Aku is busy in the kitchen about ten meters away; occasionally she joins in, sometimes at the request of the others. At line 1, Bella calls Aku to present a riddle to her. In response to Bella’s riddle, Aku produces the repair initiator *bê*: ‘what?’, with the suspended-fall contour typical of many WH-questions and question-word based repair initiations in the Siwu corpus. Bella produces a full repeat, treating the question word as indicating a problem of hearing. Extract 7 and Extract 8 show that *be*: ‘what?’ can be treated in essentially the same way as the interjection: as indicating no grasp of the prior talk and therefore inviting a near-verbatim repeat.

Extract 8: Compound_1408650

- | | | | |
|---|-------|---|-----|
| 1 | Bella | Aku dae
PSN sister
<i>Sister Aku</i> | |
| 2 | | (0.7) | |
| 3 | | ɔkpakpa ɔwě si iyo ne ɔkore fore inyamɔ.
old.man one sit room TP beard splay outdoors
<i>an old man sitting indoors, his beard splayed across the compound.</i> | T-1 |
| 4 | Aku | bê: ((suspended fall intonation))
what:Q
<i>wha:t?</i> | T0 |
| 5 | Bella | ɔkpakpa ɔwě si iyo ne ɔkore fore inyamɔ.
old.man one sit room TP beard splay outdoors
<i>an old man sitting indoors, his beard splayed across the compound.</i> | T+1 |
| 6 | | (1.7) | |
| 7 | Aku | êê: kàsege
HES fireplace
<i>uh: fireplace¹</i> | |

¹ The fireplace presents a visual likeness to the scene described in the riddle: a charcoal fire inside a half-open ring of clay, with a long wooden log shoved into it.

Aku's question word at line 4 in Extract 8 is drawn out and hyperarticulated. The two speakers in this interaction are at considerable distance from each other, one of the common contexts for such hyperarticulation. This is the inverse of the underarticulation of the interjection that we saw in Extracts 5 and 6, another sign that proximity of speakers may be one of the factors influencing the selection of articulatory variants in interaction.

Whereas the *ã* interjection contributes no semantic content of its own apart from its questionhood, the *be* 'what' question word is recruited from a larger paradigm within which it occupies the thing category. This raises the possibility for slightly more specific interpretations. Indeed in the Siwu corpus, it appears that in response to *be* 'what?', repair solutions are more likely than *huh?* to feature not just a full repetition but also some expansion or specification.

We have already seen one relevant example in Extract 1 (p. 4 above), where Mum addresses a request to Sesi: 'take uh the thingy for me', and Sesi initiates repair on this request. Mum's repair solution dealt with two possible problems at once: it repeated the full request, attending to the possibility that the repair initiation indicated a general problem of hearing; but it also exchanged the placeholder word *irað* 'thingy' for the more specific *kadadisei* 'small pot' and the dative *tã me* 'for me' to the allative *bɔ me* 'to me', attending to possible problems of referential vagueness and underspecification.

Extract 9 below offers another example. Kuma and Ogbe discuss crop yields and farmlands. In a slightly disfluent manner, Ogbe asks Kuma why 'he, himself' (as opposed to his sons) doesn't plant at least one plot. At line 3, Kuma initiates repair using *be* 'what?'. In response, Ogbe produces a complex turn consisting of two turn constructional units. The first unit solves a possible problem of underspecification by proposing rice as the crop that Kuma should personally plant. The second unit (which includes 7 lexical items from the prior turn) solves further possible problems of disfluency and underspecification: it is produced with greater fluency than the prior version, and also slightly modifies it by exchanging general words for more specific terms — 'do one plot' becomes 'farm one plot of rice'. The repair solution thus appears to be designed to solve multiple possible problems.

Extract 9: Two_men_2_666330

- | | | | |
|---|------|--|-----|
| 1 | Ogbe | nɛ bɔsɔ fɔ nɪtɔ ai tà à bie sɔ áa- a-
TP why you yourself you.NEG PROG you want QT you
<i>So why don't you yourself want to- to-</i> | T-1 |
| 2 | | aà bra >anade< plɔ̀tù ðwě kere:
you.FUT do even plot one just-Q
<i>do even one plot?</i> | |
| 3 | Kuma | be:
what
<i>what</i> | T0 |
| 4 | Ogbe | kàmɔ, bɔsɔ ai tà à bie sɔ aà- aà ko kàmɔ plɔ̀tù ðwě kéré:
rice why you.NEG PROG you want QT you you.FUT farm rice plot one just-Q
<i>Rice, why don't you want to- to farm just one {plot of} rice?</i> | T+1 |

This kind of case brings us on the borderline of the distinction between open repair initiators, which do not specify the location or character of the trouble, and restricted repair initiators, which restrict the problem space by pointing out a specific item or category. We will see in §4.2.1 that the thing question word can also be used to initiate repair in an unequivocally restricted sense, targeting a problematic thing-reference in a trouble-source turn. When it does so, there is always additional material, for instance a partial repetition. In the absence of such additional material (as in the examples in this section), participants treat *be?* 'what?' as at least necessitating a redoing of the trouble source turn.

Some languages have been said to make an intonational distinction between open versus restricted uses of the thing question word, as in English "what?" vs. "what." (Schegloff 1997). Siwu shows another way of solving this problem: the distinction is not marked directly, but is more heavily context-sensitive. When *be* 'what?' occurs alone and there is no underspecified reference in the trouble-source turn that could be its

target, it is treated as an open repair initiator that makes repetition relevant (Extract 7, Extract 8). When the trouble-source turn contains an underspecified reference that could be the target of *be* ‘what?’, speakers treat the repair initiation as making relevant both repetition and specification (Extract 9, Extract 10). This context-sensitivity is an important feature of social interaction (Lerner 2003). It shows that participants in interaction do not just mechanically parse repair initiation formats and produce responses, but that the formulation of a repair solution involves among other things inspecting the prior context for possible sources of trouble.

4.1.3 Other open strategies

While the interjection and question-word based strategies are the most common open repair initiators in the corpus, two further formats for open repair initiation are available. These appear to be more polite and are used in settings where asymmetries in status are foregrounded. In Extract 10, Eku and some others are picking corn from cobs. In the distance, Koku, a younger family member, has been recruited to look whether there is some water in the house, to which he replied there wasn’t (this itself involves a repair sequence discussed in §4.2.2, Extract 17 below). After a brief silence Eku has another question for him: ‘what about the flat stuff?’.

Extract 10: Maize1_4215380²

6	(1.4)	
7	Eku	<i>f</i> sibekelea è: <i>f</i> T-1 flat.one Q.INDEF <i>what about the flat stuff?</i>
8	Koku	<i>f</i> f̃ sɔ: <i>f</i> TO ₁ 2SG QT:Q <i>you said?</i>
9	Eku	<i>f</i> sibekelea àna ókuti: <i>f</i> T+1 ₁ flat.one too SCR:remain:Q <i>is there any flat stuff left?</i>
10	(5.0)	
11		[a:bùa àye inɛ ló ba è: ((to others)) 2SG:be.very 2SG:know that.which REL come Q.INDEF <i>do you know what’s going on?</i>
12	Koku	<i>f</i> [lotãiti <i>f</i> TO ₂ I.beg.you <i>pardon?</i>
13	Afua	ũito ɔɔ sɛ dzé tá àye mm̃. ((to Eku)) 3SG:NEG:PROG 3SG:hear speech PROG 2SG:speak there <i>He didn’t understand what you were saying there.</i>
14	(1.1)	
15		<i>f</i> sɔ sikã siwẽ ɔkuti mi: <i>f</i> T+1 ₁ QT money some SCR:remain 2PL <i>{she asked} whether there is any money left</i>
16	Koku	<i>f</i> ai sikã sê <i>f</i> yes money be.there <i>yes there is money.</i>

Koku initiates repair on Eku’s question with *f* sɔ ‘you said?’, a format built from the second person independent pronoun *f* and the quotative particle *sɔ*. This format is rare in informal speech, but fairly

² *f*-signs mark stretches of louder speech (as in Local, Kelly, and Wells 2008).

common in situations that involve asymmetries in social status. In this case, it likely indexes deference on the part of Koku, who is a junior family member recruited to do something for Eku, his elderly aunt.

After Eku's attempt at resolving the trouble (a repetition plus expansion in line 9) a long silence ensues, prompting Eku to openly wonder to the other people present whether they know what's going on (line 11).³ In overlap with that, Koku, still in the house, follows up with another open repair initiator: *lotāiti* 'pardon?' (line 12). This format, too, is rare in everyday informal interaction and more common in situations where status differences are foregrounded. It shares with *fɔ sɔ* the deferential meaning, but adds an apologetic touch.

Apology-based formats for repair initiation have been described in some detail for German (Selting 1987) and English (Schegloff 2005; Robinson 2006). By using such a format to initiate repair, speakers apologise for 'not getting it', displaying that they hold not the original speaker but themselves responsible for the trouble (Robinson 2006). Across languages, apology-based formats are rare in informal, intimate speech and more common in settings and situations where status asymmetries are foregrounded (Dingemans, Blythe, and Dirksmeyer 2014).

4.2 Restricted formats

Restricted formats for repair initiation earn their name by *restricting* the problem space in various ways: they may target the problem by means of a question word or repetition, or they may put forward a candidate hearing or understanding which invites confirmation (or disconfirmation). Several more complex formats can be formed by combining these techniques.

Within restricted formats, a broad distinction can be made between request type repair initiators, which generally make relevant clarification or specification, and offer type repair initiators, which put forward a candidate solution for confirmation or correction. A third, much less numerous type consists of repair initiations that invite a selection from among alternatives (alternative questions).

4.2.1 Request type repair initiators (seeking clarification or specification)

A large chunk of the restricted repair initiators in the Siwu collection are of the restricted request type, which makes relevant clarification or specification. Such repair initiators often include content question words. Across languages, question words commonly come in paradigms that encode different categories like thing, person, and place (Ultan 1978; Cysouw 2004). They restrict the scope of the repair initiator to a specific expression within the trouble source turn, for instance a reference to a person, thing or place. In Extract 2 in §3.2 above we have seen a typical example of *ɲna* 'who' targeting a problematic person reference. Extract 11 offers another example, this one targeting two problematic person references:

Extract 11: Neighbours_1937817

- | | | | |
|---|-----|---|-----|
| 1 | Aku | nɛ ɡɔ sɔ ma inyɔ maŋɡbe nɛ sɔ mi ɛ̀- kato te kà dāa ma.
TP REL QT 3pl two 3pl.DEM.here TP QT 2PL HES top PROG IMM hurt 3PL
<i>as for the two of them here it's said that you uh- they're not right in the head.</i> | T-1 |
| 2 | Ben | ɲna ku ɲna:
who with who:Q
<i>who and who?</i> | T0 |
| 3 | Aku | Koku ku Yaw
PSN with PSN
<i>Koku and Yaw.</i> | T+1 |

Although content question words can occur on their own, quite often they are combined with some repeated material from the trouble source turn that further restricts their scope. There are two ways of

³ Whereas Koku, at a distance, is addressed in a loud voice (marked *f*), this turn is produced at a normal loudness level, indicating that it is addressed not at Koku but at the people in the immediate vicinity to the speaker.

using repetition in other-initiated repair (Jefferson 1972; Dingemanse, Blythe, and Dirksmeyer 2014): it can be used to “frame” the troublesome item, or it can repeat the trouble source itself. The distinction can be illustrated by contrasting two restricted formats incorporating the question word *be* ‘what’.

In Extract 12, Afua explains to Koku how to prepare a certain dish. At line 2, Koku initiates repair using a combination of repetition and a question word. The repetition frames the trouble while the question word identifies it by providing a slot for it: *à di be* ‘you take what?’. In response, Afua repeats only the word that fits in the slot indicated by *be* ‘what?’, namely *àkpɛa* ‘corn seeds’:

Extract 12: Neighbours_2400310

- | | | | |
|---|------|--|-----|
| 1 | Afua | kɔ̃rɔ̃ inya sɔ ka à bie- ka à di àkpɛa ló.
now NOM:need QT IMM 2SG find IMM 2SG take PL:corn.seed FP.advice
<i>now you need to find- you need to take the corn seeds</i> | T-1 |
| 2 | Koku | à di be:
2SG take what:Q
<i>you take what?</i> | T0 |
| 3 | Afua | àkpɛa
PL:corn.seed
<i>corn seeds</i> | T+1 |

Extract 13 shows another restricted repair initiator combining *be* ‘what’ and repetition. In this case the repeat does not frame the trouble, but represents it. Ben, Yao and some others are sitting next to a trench they have dug. A stray chicken walks into the trench and Ben wonders aloud whether it realises “its own fate”. At line 2, Yao initiates repair by means of a question word + repetition: *be siwɔɾɛba* ‘what fate?’. Ben clarifies the term by giving the reason for his statement (line 5):

Extract 13: Break_993617

- | | | | |
|-----|------|--|-----|
| 1 | Ben | nɛ kɔkɔ́ gɔ́ngbe ito ðnyɔ̃ so siwɔɾɛba:
TP chick REL:DEM.here it:PROG SCR:watch self its own fate:Q
<i>so this chicken is not realising its own fate?</i> | T-1 |
| 2 | Yao | be siwɔɾɛba:
what fate:Q
<i>what fate?</i> | T0 |
| 3 | Kofi | ((picks up a pebble to throw at the chicken)) | |
| 4 | Yao | nyua ni:
hold FP.urgent
<i>stop that!</i> | |
| 5 | Ben | nɛ bɔsɔ́ to ɔso ðbo ìwo amɛ.
TP why PROG SCR:descend SCR:reach excavation in
<i>so why is it getting into our excavation.</i> | T+1 |
| ... | | ((some intervening turns omitted)) | |
| 9 | | ((chicken gets out and runs away)) | |
| 10 | Yao | kàbɔ́bí ònyà nɛ- nɛ ka- ká fɛrɛrɛ kabo mm̀ ð nɛ- nɔso fiɛ ʒs̀ òbo nɛ.
insect it:see TP TP IMM IMM fly it:enter there TP so then SCR descend SCR:reach TP
<i>it saw an insect, so- so it flew into there, th- that’s why it went down there</i> | |

These examples illustrate two distinct uses of repetition in restricted type repair initiators. While both of them present a portion of T-1 as troublesome, one is responded to in T+1 by means of repetition and the other by clarification. The functional distinction appears to ride on the position of the question word: If the question word is in situ, the repetition is understood to be trouble-framing and the format is treated as

request to repeat some material (*you take what?*). If it is fronted, as it is in ordinary content questions, the repetition is understood to be trouble-presenting and the format is treated as a question about the repeated material (*what {do you mean} fate?*).

Another example of a trouble-presenting repeat is the following sequence, in which a person reference is combined with a person question word to indicate a request for clarification. This *who X* format is an alternative to the bare person question word *̀̀na* ‘who’ seen in Extract 2 and Extract 11. Whereas the *who* format invites a straight repeat of the person name, the *who X* format invites clarification of the problematic person reference (similar to the system described for Bequia Creole by Sidnell (2007)). In Extract 14 this is done by referential specification: *Michael* is glossed as *your father- your father’s son Michael* (a father’s son here is a brother in the extended family sense).

Extract 14: Neighbours_1916910a

- | | | | |
|---|---|--|-----|
| 1 | A | Mékèlì ̀̀
PSN his
<i>It’s Michael’s.</i> | T-1 |
| 2 | B | ̀̀na mékèlì:
who PSN:
<i>Which Michael?</i> | T0 |
| 3 | A | oò, fɔ ɔse- fɔ ɔse ɔbi Mékèlì.
oh your father your father’s son PSN
<i>oh, your father- your father’s son Michael.</i> | T+1 |

The rich noun class system of Siwu affords another set of possibilities. Noun class morphology can be combined with the selection question word *mele* ‘which’ to form repair initiators like *imele* ‘which thing of the i-class?’ (Extract 15) and *màmele* ‘which plural animates of the ma-class?’ (Extract 16). The noun class markers narrow down the scope of the restricted repair initiators to the category indicated by the noun class: a singular thing of the i-class or a plural animate thing of the ma-class. Siwu provides eight such noun class distinctions (Dingemans 2011), generating as many options for locating problematic references in prior talk.

Extract 15: Neighbours_2131956

- | | | | |
|---|------|---|-----|
| 1 | Mum | Afua, lóťáóítì ta sù dádisēi iyo tã me inòò.
PSN please stand take pot room give me y’hear
<i>Afua, please get up and take a (metal) pot in the room for me y’hear.</i> | T-1 |
| 2 | Afua | ìmelè?
I.which.Q
<i>which one? {of the i-class}</i> | T0 |
| 3 | Mum | su dadisēi siàrè bɔ.
take pot big bring
<i>take the big pot {and} bring {it}</i> | T+1 |

Extract 16: Neighbours_2076362

- | | | | |
|---|---|--|-----|
| 1 | A | ṣṣ se ̀̀ nyṣ makpise inyṣṣ maṅgbe.
3SG.PF go 3SG look MA-corpse two MA-here
<i>she went to watch those two corpses</i> | T-1 |
| 2 | B | mamele?
MA.which.Q
<i>which ones? {of the animate plural ma-class}</i> | T0 |
| 3 | A | ̀̀ndè Todzi maree maṅgbee?
NEG-be PLN MA-belong MA-here
<i>wasn’t it those Todzi people?</i> | T+1 |

One of the functions of noun class morphology in discourse is reference tracking (Contini-Morava 1996; Seifart 2005). Most studies of this function have focused on elicited texts, especially narrative monologues. Here, we see that people actively use noun class morphology to retrieve problematic references in dialogue. This is one example of how evidence from conversation can help us to link grammar and social interaction (Ochs, Schegloff, and Thompson 1996; Selting and Couper-Kuhlen 2001).

Table 5 lists the relative frequency of the four ontological categories of person, thing, place and quantity, showing that problems with person reference are most common, closely followed by problems with referential underspecification. The categories of person, thing and place are three of the four “major categories” of Cysouw (2004)’s lexical typology of interrogative words: most languages have question words specifically targeting these categories. That these categories are also the ones that appear to be most commonly asked about in repair may contribute to a usage-based explanation for the lexicalisation pattern described. After all, other-initiated repair accounts for a significant chunk of usage of question words (Enfield, Stivers, and Levinson 2010).

Table 5: Frequencies of restricted repair initiators using ‘WH’ words, by ontological category

Category	Count
PERSON	26
THING	19
PLACE	4
QUANTITY	1

4.2.2 Offer type repair initiators (candidate hearings and understandings)

The formats we have discussed so far vary —among other things— in the specificity with which they pinpoint trouble, but what they have in common is that they leave it to the trouble producer to produce an improved version of T-1: they are all request type repair initiators. Another common practice of other-initiated repair is to present a hypothesis as to what was said, which can then simply be confirmed or disconfirmed by the trouble source speaker. This is known as *offering a candidate* (Schegloff, Jefferson, and Sacks 1977; Sidnell 2010:132–3).

A distinction can be made between *candidate hearings* (which repeat part of T-1 for confirmation) and *candidate understandings* (which present an independent understanding for confirmation), though there is not always a clear boundary and the two may be combined (Dingemanse, Blythe, and Dirksmeyer 2014). In Extract 17, Eku and others are doing some work outdoors. Koku is standing next to a compound house some ten meters away, and Eku asks him: ‘is there still some in the house?’. Following Eku’s underspecified question, Koku produces a possible understanding as to what was meant: *piw wɔta*: ‘purified water?’ (line 2). Its prosodic realisation, with final vowel lengthening and level intonation, marks it as a polar question to be confirmed or disconfirmed by Eku. Following Eku’s confirmation in line 3, Koku checks whether there is still some water, and reports back that there isn’t.

Extract 17: Maize1_4215380

1	Eku	ira iwē əkuti iyóo? thing some SCR:remain house:Q <i>is there still some in the house?</i>	T-1
2	Koku	piw wɔta: pure water:Q <i>purified water?</i>	T0

- | | | | |
|---|------|---|-----|
| 3 | Eku | âi:
yes
yeah | T+1 |
| 4 | | (0.5) | |
| 5 | Koku | òò ló
no FP.advice
no there isn't | |

Often candidates tie back to the prior turn by repeating part of it while also putting forward a new understanding for confirmation. In Extract 18, Ogbe repeats a person name introduced by Kuma, while adding a pointing gesture in the direction of the area where the candidate referent lives, putting forward a hypothesis that can be paraphrased as “the pointed to Ata?”. Kuma confirms Ogbe’s candidate by repeating the name, adding a head nod and a right hand movement in the same direction as Ogbe’s pointing gesture. Besides illustrating the practice of combining candidate hearings and understandings, this example also shows the interwovenness of visible and verbal behaviour in conversation (Enfield 2009). Ogbe’s repair initiator (Figure 1) and Kuma’s repair solution are composite utterances to which speech and gesture contribute essential parts.

Extract 18: Two_men_2_838407b

- | | | | |
|---|------|---|-----|
| 1 | Kuma | Àdom ʒ òbi Àta nɛ,
PSN POSS child PSN TP
<i>As for Adom’s child Ata,</i> | T-1 |
| 2 | Ogbe | Àta: ((left hand point to area where candidate referent lives))
PSN:Q
((the pointed to)) Àta? | T0 |
| 3 | Kuma | Àta ((head nod, right hand movement in same direction as Ogbe’s point))
PSN
((yeah, that)) Àta. | T+1 |



Figure 1 Kuma (right) asks “the pointed to Ata?” (Extract 18, line 2)

About two-thirds of the repair initiators offering a candidate in the Siwu corpus are of the candidate understanding type where only new material is offered for confirmation. The remaining one third repeats material from T-1, often adding some new material (Table 6). All these cases are united in being marked as polar questions by means of final vowel lengthening and level intonation.

Table 6: Different types of restricted offer type repair initiators

Formats for offering a candidate	Count
Candidate understanding	65
Candidate hearing + candidate understanding	20
Candidate hearing	14
Total	99

4.2.3 Complex formats

A format closely related to the restricted offer type format is the alternative question. In this format, the person initiating repair presents not one possible understanding but multiple, inviting the trouble source producer to pick the intended option from the set (in my data the number of options given is never more than 2). Extract 19 illustrates. Afua and Odo plan to have a sick tree removed from their compound and are discussing what they would pay the chainsaw operator.

Extract 19: Maize1_1076920

- | | | | |
|---|------|---|-----|
| 1 | Afua | ne ide ee ee faif tauzi kere laa ta u.
TP this.one uh uh five thousand just 1SG:FUT give him
<i>for this one uh uh I'll give him only five thousand</i> | T-1 |
| 2 | Odo | faif cidi or faif tauzi.
five cedi or five thousand
<i>Five cedis or five thousand?</i> | T0 |
| 3 | Afua | faif tauzi
five thousand
<i>five thousand</i> | T+1 |

Afua proposes to pay the chainsaw operator ‘only five thousand’. This leads Odo to initiate repair in line 2: does Afua mean ‘five cedis or five thousand?’. The background to this problem is the then-recent recalibration of the Ghana cedi, in which 10,000 old Cedis (GHC) became 1 new Cedi (GHS). While all old banknotes and coins are out of circulation, many people continue to employ terms and figures based on the old currency, leading to common misunderstandings. Odo’s turn design here combines a candidate hearing (repeating *five thousand* from T-1) and a candidate understanding (independently inferring *five cedis*). So Odo is asking whether Afua intends to give 5 new Cedi or 5,000 old Cedis (0.5 new).

Speakers may also combine repair initiators. We have seen one example in Extract 7, where B initiates repair with *ã Ɂ be*: ‘huh? what?’. In the example below, Aku asks Kofi where a third person, Kodzo, went. When his complex answer is not sufficient, she initiates repair using two different types of restricted formats: a “double” (Kim 1999). Both formats in this double utilize repetition of some material (*mẽrẽ iyo* “the house of [X] and associates”). The first combines it with a question word (*ɲna* ‘who’) and the second with a candidate understanding (the name *Kuma*). Kofi’s repair at line 5 provides a solution that fits the frame provided by question word plus repetition and at the same time disconfirms the candidate understanding “Kuma” in Aku’s double.

Extract 20: Neighbours_2357030

- | | | | |
|---|------|---|-----|
| 1 | Aku | ile Kɔdzo kpa?
where PSN go
<i>where'd Kodzo go?</i> | |
| 2 | Kofi | ɔ̃ kpa ɔ̃:- (0.8) (ɔ̃) ɔ̃nyibi mɛrɛ̃ iyo.
3SG go 3SGPOSS 3sgposs sibling ASSOC house
<i>he is gone to his: (0.8) (his) sibling's and associates' house.</i> | T-1 |
| 3 | Aku | ɔ̃na mɛrɛ̃ iyo:, Kumà mɛrɛ̃ iyo:?
who ASSOC house, PSN ASSOC house
<i>who{se} lot's house? Kuma{'}s} and associates' house?</i> | T0 |
| 4 | | (1.5) | |
| 5 | Kofi | ɔ̃ ɔ̃nyibi
3SG.POSS sibling
<i>his sibling{'}s}</i> | T+1 |
| 6 | | ((another round of repair focuses on which of his siblings)) | |

When multiple repair initiators occur, they may be addressed to multiple possible problems, and they may be interactionally contingent. In Extract 21, Aku is telling a story about the adventures of a young woman of dubious reputation. At line 1 of the example, she notes that “they went into their house- into their big house”, a self-repaired formulation which then becomes a source of trouble.

Extract 21: Neighbours_2019816a

- | | | | |
|---|-----|--|-----------------|
| 1 | Aku | ma kɛlɛ̃ ma iyo a-, ma iyo siàrɛ̃ amɛ.
they go their house in their house big inside.
<i>they went into their house- into their big house.</i> | T-1 |
| 2 | Yao | mɔ̃
INTJ.OIR
<i>m?</i> | T0 ₁ |
| 3 | | (0.7) | |
| 4 | | hə. ɪgbàgbà amɛ:
INTJ clan.house inside:Q
<i>huh. into {the} clan house? ((extensive family house))</i> | T0 ₂ |
| 5 | Aku | m̃m, ɪgbàgbà ɔ̃bi ɔ̃ dɛ̃.
yes clan.house child she is
<i>mm, she's a clan house girl ((i.e., upper class))</i> | T+1 |

Yao produces the interjection *mɔ̃* at line 2. After a silence of 0.7 seconds in which a repair solution by Aku would have been relevant, he adds a repair initiator with more specific formatting: the *hə*-prefaced candidate understanding *hə. ɪgbàgbà amɛ*: ‘huh. into the clan house?’. A clan house, or *ɪgbàgbà*, is a kind of stately home that not all families have, and that is used only for special occasions. Aku’s repair solution confirms Yao’s candidate correction of ‘clan house’ to ‘big house’, and adds an account: “yes, she’s a clan house girl”. It thus appears she takes Yao’s repair initiators to reveal two possible sources of trouble: one is the surprising fact that the dubious protagonist of the story has access to a clan house, the other is the disfluent reference to the house in the trouble source turn. Yao’s *mɔ̃* at line 2 may index surprise by means of a mechanism described in the section on ‘actions’ below, whereby repair initiators may come to be associated with meanings of surprise and disbelief. The more complex turn at line 4 is prefaced with *hə*. ‘huh.’, reinforcing the display of surprise, and adds a candidate understanding that proposes *ɪgbàgbà* ‘clan house’ as a gloss for the phrase *iyo siàrɛ̃* ‘big house’.

The upgrade from one format (line 2) to another (line 4) is familiar from complex sequences like Extract 2, and forms another piece of evidence for the relative ordering of formats for other-initiation of repair. Here we see that open comes before restricted, while Extract 2 showed that within restricted, request type repair initiators come before restricted offer type ones. Together, these examples suggest that repair initiators are ordered open request < restricted request < restricted offer, thus replicating Schegloff, Jefferson and Sacks' (1977) original observations.

5 Morphosyntactic devices involved in sequences of other-initiated repair

Other-initiated repair generally exploits linguistic resources like interrogative prosody and question words. Some morphosyntactic devices are especially tightly integrated with the organisation of other-initiated repair. Two common ones are illustrated in Extract 22: an explicit reference to a trouble source turn and a repair solution preface. Eku is indoors while Beatrice sits on the porch outdoors. After a lapse, at line 2 Eku mutters, more to herself than to anybody else, that she is going to urinate. Beatrice initiates repair using *be íde* 'what's that?'. In response, Eku supplies a repetition at normal volume (thus hearably addressed to Beatrice) that incorporates the core lexical items from the trouble source turn.

Extract 22: Compound4_2039579

1	(8.0)		
2	Eku	°kà laàba laàru kuru nε° IMM 1SG:FUT:come 1SG:FUT:piss piss TP °and now I'm going to take a piss.°	T-1
3	Beatrice	be íde? what it:be what's that?	T0
4	Eku	mè sɔ laàru kuru 1SG QT 1SG:FUT:piss piss I said I'll take a piss.	T+1

In terms of how the sequence plays out, this is simply a case of an open repair initiator being responded to with a full repetition of the troublesome talk. However, it features a number of special devices related to the management of the other-initiated repair sequences. The first is the reference to prior talk in Beatrice's repair initiator at line 3. While most repair initiators rely on simply contiguity to indicate what prior talk they target (i.e. 'what?' and not 'what did you say just now?') (Schegloff 2000), sometimes they can include a more explicit reference to some prior talk. Most commonly, this is the verb *de* 'to be', yielding formats like *be í-de* 'what's that?' and *nna í-de* 'who's that', with preverbal agreement morphology marking the category of the asked-about entity (*i-* for thing, *ɔ-* for person). The open repair initiator *be íde* 'what's that' is also used when there is some intervening material between the trouble source and the repair initiation. Its design — basically an extended version of the open repair initiator *be* 'what?' — is in line with devices carrying out similar functions in English and German (Benjamin 2012; Egbert forthcoming). In this particular case, its use may be addressed to the fact that Eku's original was uttered at low volume and not clearly addressed to anyone.⁴

The second device of interest is the phrase *mè sɔ* at line 4 (we have seen another instance of it in Extract 4). This is translated into English as 'I said' although *sɔ* is not a verb but a quotative complementizer. *Mè sɔ* is used to introduce resayings in T+1 position — the structural inverse of the format *ɔ sɔ?* 'you said?' seen in Extract 10, which marks a repair initiation in T0 position. In Extract 22, Eku uses it to introduce her

⁴ For Benjamin (2012), noncontiguity obtains when repair initiations are "issued some time after the offending talk has passed". Cases like this show that very similar strategies are used when turns at talk are not clearly adjacent or addressed.

repair solution, which is indeed a near-verbatim repetition. The use of repetition, discourse deictic devices (“what’s that?”) and quotation markers (“you said?”) in sequences of other-initiated repair is a special case of the more general fact that other-initiated repair crucially relies on the self-referentiality of language:⁵ in other-initiated repair, language is turned on to itself.

A final structural feature illustrated by Extract 22 lies not in the use of some morphosyntactic resources but rather in their omission. If we compare Eku’s original utterance with the repeated version, the main content words are the same, but some items have been omitted: the temporal phrase *kà laàba* “and now I’m going to” and the topicaliser *nɛ*. This phenomenon is quite frequent: Table 7 lists some types of items omitted in resayings in Siwu.

Table 7: Some types of items omitted in resayings (underlined, with reference to examples)

Type	Example
Address terms	<u>Sesi</u> su ɛɛ iràḽ tã mɛ ‘ <u>Sesi</u> , take uh: the thingy for me’ (1); <u>Aku daɛ</u> (0.7), <i>ακπακπα</i> ɔwɛ ‘ <u>Sister Aku</u> (0.7) an old man...’ (8); <u>Afua</u> , <i>lótācītī ta sū dádīsēi iyo tã mɛ inɔḽ</i> . ‘ <u>Afua</u> , please get up and take a cooking pot in the room for me, okay?’ (15)
Information structural devices (e.g., topic and focus markers)	<u>nɛ</u> bɔso fɔ nītɔ... ‘ <u>so</u> why don’t you...’ (9) <i>kà laàba laàru kuru nɛ</i> ‘ <u>now</u> I’m going to take a piss’ (22)
Turn-initial linking devices	<u>mm</u> , <i>nɛ ũ iba nɛ</i> ‘ <u>mm</u> , so he didn’t come?’ (3) <u>āī, āī</u> , sɛ ma we ‘ <u>yeah yeah</u> they eat it’ (23)
Final particles	<i>Afua, lótācītī ta sū dádīsēi iyo tã mɛ inɔḽ</i> . ‘Afua, please get up and take a cooking pot in the room for me, <u>okay</u> ?’ (15)

What all these items have in common that they help anchor the original turn to its prior sequential and interactional context. The resaying of the turn occupies a different sequential position, and items which are no longer necessary may be left out. Schegloff (2004:142) notes two reasons for what he calls “dispensability”: an item may be dropped “either because the present sequential context is different or because of the continuing effectiveness of its prior deployment.” Thus, turn-initial and turn-final particles often become irrelevant or misfit to the new sequential position of the resaying, as in Extracts 3, 9, 22 and 23. Address terms in multi-party interactions are not relevant in the resaying because the addressed parties, by initiating repair, have displayed that addressee selection has been successful, as in Extracts 1 and 15. The types of items omitted in Siwu are similar to those omitted in English (Schegloff 2004), showing that aspects of the organisation of repair transcend linguistic boundaries and are more properly seen as part of a generic conversational infrastructure.

6 Actions

The techniques of other-initiated repair can be employed to carry out social actions beyond repair (Sacks 1992; Schegloff 1997). These other actions usually exploit one or more formal or functional properties of other-initiated repair. For instance, the fact that a repair initiation starts a side sequence rather than directly dealing with what a previous turn might be asking for can be exploited as a way to avoid doing something — such as giving your name in a phone call (Sacks 1992:I:6-7) or fulfilling a practical request. The fact that an other-initiation of repair prompts the original speaker to redo their utterance may be exploited in cases where the problem is not so much one of speaking, hearing or understanding, but more of appositeness (Drew 1997) or appropriateness, from which we get the common use of other-initiated repair before dispreferred or disaligning actions, given the original speaker the chance to produce a more appropriate version (Schegloff 1997). Finally, the fact that repair initiation often signals some problem in understanding can be exploited to indicate surprise or disbelief. Space precludes discussion of all of these actions above and beyond repair, so I will only illustrate one of them, the use of techniques of repair initiation to indicate surprise or disbelief.

⁵ Thanks to Nick Enfield for drawing my attention to this.

In Extract 23, some men are sharing stories of dangerous animals one can encounter in the jungle. At line 1, Eugen says that at a palmwine tapping place outside the village, people have been killing the highly toxic Black Cobra for food. He adds an illustration of the thickness of this snake in line 2. At line 3, in full overlap with this addition, Kuma utters an exclamation of astonishment. Ruben confirms that Black Cobra is eaten: ‘yeah, yeah, they eat it’. At line 5, Kuma utters a prosodically exaggerated $\uparrow H\partial\partial\uparrow$ ‘HUH?’. In response to it, Atta produces a confirmation token, while Ruben repeats ‘they eat it’ and then adds that the bile (which is toxic and acidic) is removed before consumption (lines 7, 8).

Extract 23: Break_593390

- | | | | |
|---|-------|--|-----|
| 1 | Eugen | kârõkpá má wà ìrèbà.
tapping.place 3PL cook black.cobra
<i>at the palmwine place they prepare Black Cobra</i> | |
| 2 | | [ìrèbà ɔ́torò ɔ́dò [ŋgbe.
black.cobra SCR:be.thick 3SG:surpass this
<i>Black Cobra is thicker than this ((taps beer bottle, diameter 8 cm))</i> | |
| 3 | Kuma | [\uparrow E BOBOBOBO \uparrow
INTJ.astonished
<i>WHO:AH!</i> | |
| 4 | Ruben | [ãĩ, ãĩ, sɛ mà weè
yes yes HAB 3PL eat
<i>yeah, yeah they eat it.</i> | T-1 |
| 5 | Kuma | $\uparrow H\partial\partial\uparrow$
INTJ.OIR
<i>HUH?</i> | T0 |
| 6 | Atta | m̄ hm=
m̄ hm= | |
| 7 | Ruben | =sɛ mà weè.
HAB 3PL eat
<i>=they eat it.</i> | T+1 |
| 8 | | si ánya ma- sí anyà ma di kanaròrò gá ñrɛ̀ (0.3) dzalalalalai -
if 2SG:look they if 2SG:look they remove bile REL SCR:lie IDPH.thin+long
<i>look- look, they just remove the bile that lies (0.3) dzalalalalai [thin+long]</i> | |

Kuma’s repair initiator in line 5 is not an ordinary token of \tilde{a} ‘Huh?’; its relative loudness and high pitch render it a prosodically marked form and signal that it is doing something different or extra (Selting 1996; Sicoli et al. 2014). A similar case is found in line 3, where the same speaker utters another interjection at markedly higher pitch and loudness. That interjection conventionally conveys surprise or astonishment, a stance affirmed by Ruben’s double confirmation in line 4. There is evidence that Kuma’s $\uparrow H\partial\partial\uparrow$ in line 5 conveys the same kind of stance: Atta responds to it with the confirmation token *m̄ hm*. But there is also evidence that it can still be taken to initiate repair: in line 7-8, Ruben responds by repeating the bulk of his prior turn and adding a further clarification. In other words, Kuma’s $\uparrow H\partial\partial\uparrow$ appears to be ambiguous between a repair initiation and a marker of surprise, as shown by the fact that two participants treat it differently. A case like this may function as a bridging context (Evans and Wilkins 2000): a context in which the original function of an item is still an available interpretation, but where a new, derived interpretation is also possible.

There are also cases in which only the derived ‘surprise’ interpretation comes into play. An example is Extract 24. Afua is telling a dramatic story of her travels into another part of the country. At one point she got lost in the jungle and fell into a trap. Just when she thought she would die, some strangers found her. At line 1, Afua relates how they encountered her and treated her wounds with herbs. At line 2 Ella exclaims *HÁÁ* with strongly exaggerated rising intonation. The basic form of this exclamation is similar to the common

interjection $\tilde{a}\tilde{\gamma}$ ‘huh?’, but its loudness and length mark it as doing something beyond ordinary repair initiation. This is confirmed by Afua’s response in line 3, which does not repeat or modify the first turn, but rather affirms the truth and the newsworthiness of her account with $\tilde{e}h\tilde{e}$ lo! ‘oh yes!’.

Extract 24: Maize1_1261030

- 1 Afua ma sòròò gú m̀è, nɛ kà má ba ma piè m̀è kua.
3PL meet INSTR me TP IMM 3PL come 3PL bathe me herb
they encountered me and then they washed me with herbs
- 2 Ella HÁÁɹ
INTJ.OIR
HUH?
- 3 Afua $\tilde{e}h\tilde{e}$ lo!
indeed FP.advice
oh yes!

7 Conclusion

This article has surveyed the domain of other-initiated repair in Siwu. The formatting of repair initiators is *language-specific*: repair initiators are first and foremost items in local linguistic systems, which for Siwu means they exploit language-specific affordances like question words, quotative marking, and the noun class system. The production of repair initiators can be *situation-dependent*: the use of open- and closed-mouth variants of open repair initiators appears to bear a relation to the interpersonal distance between participants in interaction, perhaps simply as a result of minimising effort (though I do not exclude the possibility that the difference is interactionally relevant). The interpretation of repair initiators is *context-sensitive*. We saw this for instance in the role of *be*: ‘what?’ as a format on the borderline between open and restricted formats. In formulating their response, participants make an analysis of the possible kinds of trouble, showing that repair initiators are not simply instructions from which repair solutions can be mechanically derived.

The production and interpretation of repair initiators may be language-specific, situation-dependent, and context-sensitive; yet despite these local ties, other-initiated repair in Siwu is clearly an instantiation of a global system that transcends particular languages. The repair initiators of Siwu are broadly similar to the kinds of formats found in other languages. Their form and interrelations provide evidence of being shaped by the same concerns that are relevant in the other-initiation of repair everywhere: the need to locate and characterise trouble, to handle the distribution of knowledge, and to deal with responsibility and social relations (Dingemanse, Blythe, and Dirksmeyer 2014). By charting how other-initiated repair uses the local linguistic resources of Siwu and at the same time is shaped by concerns that transcend particular languages, this study contributes to the growing field of pragmatic typology: the typology of systems of language use and the factors that shape them and guide their selection in interaction.

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Abbreviations & conventions

This article uses official Siwu orthography where possible; /d/ is written /d/ and tone is indicated with diacritics à (low), á (high) and á (extra high). Transcription conventions are based mainly on Jefferson (2004) and only summarised here: comments are in ((double parentheses)), overlapped segments of turns are marked with [], pauses are given in seconds (0.7), ↗ stands for rising intonation, ↑ for markedly higher pitch, and CAPS for loudness. Glosses follow the Leipzig glossing rules where possible, allowing for some simplifications in the service of readability. Abbreviations: ASSOC associative, DEM demonstrative, FP final particle, HAB habitual, HES hesitation marker, IDPH ideophone, IMM immediate, INTJ.OIR interjection used for other-initiation of repair, PROG progressive, PLN place name, POSS possessive, PSN person name, REL relative, SCR subject cross-reference, TP topic, Q question marking, QT quotative.

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