

Self-Repair in Tigrinya: Trouble Sources, Mechanisms and Solutions

Dagnew Mache Asgede

*Department of English Language & Literature
Arba Minch University
Arba Minch, Ethiopia*

dagnewmache.a@gmail.com

<https://orcid.org/0000-0002-1109-4415>

Editor: Kallirroi Georgila

Submitted 11/2022; Accepted 07/2024; Published online 10/2024

Abstract

This paper analyzes conversational self-repair, which refers to reconstructing problematic portions of a prior oral discourse by oneself, in Tigrinya. Tigrinya is a Northern Ethio-Eritrean-Semitic language spoken by the inhabitants of the Tigray regional state of Ethiopia and Eritrea. This article relies on recorded oral data from speakers of the Rayya Tigrinya variety, particularly inhabitants of Neksege located to the West of Maichew. A conversational analysis (CA) approach is used to analyze the trouble sources, mechanisms (initiators), and results of self-repair. The article shows that pronunciation problems emanating from dialectal variation or tongue slip, wrong word order including focus misplacement, missing constituents, perceived misunderstandings, and using (totally) wrong constituents are some of the trouble sources that push speakers to repair portions of a prior oral utterance. On top of that, cut-offs, particles, and lexemes (one verbal noun and some predicates) are identified as self-repair initiators. Though cut-offs do not indicate a self-repair, particles and predicates may sometimes indicate a self-repair. Finally, the article posits that expanding, replacing, re-ordering, aborting and restarting, and inserting are some of the solutions set for the repairable segments in the repaired portions of the oral discourse. The author recommends for further investigation repair in the process of language acquisition and learning, and the relationship between self-repair and the demographic features of participants.

Keywords: Tigrinya, self-repair, trouble sources, repair mechanisms, repair solutions

1 Introduction

Linguistic repair refers to addressing any language-related concerns during the development of oral discourse. Repair can be self-initiated or other-initiated. This paper specifically focuses on self-initiated repair, which involves correcting one's speech to improve communication. Various scholars have studied self-repair in different languages. For example, Fox et al. (1996) state that the grammatical structure of a language influences how speakers correct their speech. Murphy (2019) also indicates a positive relationship between repairs and the phonological and morpho-syntactic features of languages. Repair, in general and self-repair in particular, is one of the most overlooked areas of linguistic research in Tigrinya, and in Ethiopian languages as a whole. This paper aims to investigate the sources of trouble, mechanisms, and solutions in Tigrinya to contribute to the discussion on conversational self-repair. The work is based on annotated oral data.

The paper is divided into four main sections. The first section, literature, introduces the sociolinguistic and grammatical features of Tigrinya for readers who are unfamiliar with the language, as well as basic concepts of conversational repair and different types of repairs. The second section covers methods and data, providing details on the data collection tools used, information about the data, protocols for annotating the data, and how inter-rater agreement was calculated among four raters. The third section presents and analyzes the data, focusing on trouble sources, repair mechanisms, and the results of self-repair. Finally, a discussion is provided based on the data results.

2 Literature

2.1 The Tigrinya

Tigrinya, spoken by the people of the Tigray Regional State in Ethiopia and by Eritreans, is one of the Semitic language branches of the Afro-Asiatic language phylum. Tigrinya, along with Geez and Tigre, are classified as a northern Ethio-Eritrean-Semitic language group. Though the language is said to have several dialects, no single study has attempted to delineate the dialect numbers based on linguistic characteristics; researchers ignored the dialectal mutual intelligibility of the language's varieties. Roughly speaking, we can assume that the language has several dialects; of these, the one spoken by the people of Tigray Regional State's southern zone, where the data this article relies on is recorded from, is known as the Rayya Tigrinya variety.

The language is used as a medium of instruction from kindergarten to grade eight, and it is taught as a course in grades nine through twelve. The language is also taught at Abiyi Adi Teachers' College and Mekelle University at diploma and degree levels respectively. At the moment that I am writing this article, due to the devastating war on Tigray regional state, none of the mentioned programs are active.

Tigrinya has 37 consonants (Asgede, 2019). Asgede (2019) and Mehari (2021) argue that the consonant segments /p/, /p'/, /v/ and /z/ are 'non-existent' in Tigrinya except in loan words. Asgede (2019) claims that loan words contain sounds that are difficult to pronounce for the illiterate part of the speech community. Concerning vowel sounds, the language has seven common vowels; the majority of the speakers of Rayya and Wajerat dialects do not utter the middle front unrounded vowel /e/ which is common in the quasi-standard Tigrinya variety (Asgede, 2019; Mehari, 2021).

Tigrinya has CV and CVC syllabic structure (Yohannes, 2002; Asgede, 2019; Mehari, 2021). In word-initial and final, a consonant cluster is impermissible; if there is either a word-initial or final potential consonant cluster, the epenthetic vowel (high central unrounded) /-i-/ and the high front unrounded vowel /-i-/ are inserted respectively. When two vowels appear in sequence in complex words that contain two or more morphs, the semivowels /-w-/ or /-j-/ or the glottal consonant /-ʔ-/ are inserted as epenthetic consonants. Besides, consonant gemination that is phonemic in most cases is common in Tigrinya at word medial but never in other word positions.

Tigrinya is an inflectional (i.e., fusional under the synthetic morphological type) language where several morphs with different grammatical meanings appear in a single word, and a single morph encodes several meanings and/or grammatical functions simultaneously. It is morphologically complex to the extent that a word contains elements that are equal to a sentence. This makes the gloss and translation of the data challenging, which leads to some tolerable problems. For example, the roots of the verbs in the language are templates of consonants into which vowels are inserted, and affixes are attached to mark different grammatical functions. The word order for Tigrinya simple declarative sentence is S-O-V as in *ʔissu goggo bəliʃu* 'He ate enjera'. However, this does not work when all grammatical elements are indicated in a single word as in the following example.

- (1) **Introspective Data**
bəliʃ-u-ww-o
bəliʃ-u-ww-o
 eat:PRV-SJ:3SM-Ø-OBJ:3SM
 'He ate it (M).'

The order of the affixes that mark the subject and object follows the verb. The language has also circumfix that marks negation as in *ʔajtixədij* [*ʔaj-ti-xəd-i-j* 'NEG-2SM:SUB-go:IPV-Ø-NEG'] 'you will not go'. Though the grammatical elements of the language are relatively emphasized in previous works, the features of conversation have been overlooked by researchers. As far as my reading is concerned, it is only Asgede (2023; 2019) who tried to touch on some of the conversational features (particularly the performance-related elements) of Tigrinya. This article therefore will focus on describing self-repair as one

feature of conversation. To achieve this, the paper describes the trouble sources, the mechanisms, and the results of self-repair in different genres of oral usage of the language.

In addition to a grammatical description, Teferra (1979) and Blejer (1986) provided some brief discussions on some pragmatic elements like discourse markers (DMs) of the language. They described particles, conjunctions, adverbials, and interjections as the main sources of DMs. Teferra (1979) has noted that *=s* and/or *=si* ‘as for’ and *?imma* or its clitic form *=mma* ‘focus marker’ are focus marking particles; *=ja* ‘evidential marker’ an enclitic, *?ikko* or its clitic form *=kko* ‘change in focus’, *də?a* ‘and so, then’; *?immo* ‘then’; *wəy dimma* ‘or’. Blejer (1986) also stated that the enclitic *=s* and/or *=si* ‘as for’ does mark focus.

Though previous studies like Mehari (2021; 2011), Asgede (2019; 2007), Girmay (2012), Nigusse (2012), Yohannes (2002), and Kiros (2009) have specifically tried to deal with different linguistic features of the different Tigrinya varieties, it is Asgede (2023; 2019) who gives room (though limited) to the conversational features of the Rayya language variety.

2.2 Conversation Repair

Conversational repair refers to pointing back to a problematic segment of oral discourse and pointing forward to its more accurate replacement. In other words, repair refers to a process of reformulating a proposition. It is one of the performance matters of conversation or speech; this process may be initiated by cut-offs, filled pauses, lexical constituents, etc. Filled pauses are linguistic forms that help a speaker and listener get more time to deal with problematic information that is given in a portion of a prior segment (Brennan and Schober, 2001 cited in Hlavac, 2011). As to Deese (1984) and Brennan and Williams (1995), filled pauses draw the attention of a listener to pay due emphasis to what follows in the development of speech.

Roughly speaking, after Fox et al. (1996), a repair can be defined as a conversational process “by which speakers correct errors they have made in their immediately prior talk”. However, a repair takes place even in the absence of any error committed; repairable segments may be repaired for clarification, rephrasing, and explanations. With this, Schegloff et al. (1977) stated that a repair is not limited to error correction, but a repair is made even if there are no errors made. In this paper, a repair is used as a conversational process that allows speakers to reconsider their ‘problematic’ prior utterances. Speakers repair a portion of their prior constituents in two ways: self-initiated and other-initiated whose differences are briefly explained in the following sub-section.

2.3 Types of Repairs

A repair can be either other-initiated or self-initiated. In a conversation, when something that a speaker has said is misheard or when a speaker encounters a problem in understanding a previous utterance, an attempt is often made to elicit a repetition, clarification, elaboration, or correction, referred to in Conversation Analysis as other-initiation of repair (Schegloff et al., 1977 cited in Ha and Grice, 2017). Other-initiated repair refers to either correcting others’ prior utterance or being corrected by others.

A self-repair in contrast refers to reconsidering your portion of prior discourse; it refers to repairing your problematic prior utterance (self-initiation). A self-repair is made by speakers when they recognize they had made a mistake or their prior discourse is problematic in any way. Self-repair may be accomplished within an oral discourse unit like sentence and turn, or even after long strings of constituents and turns are spoken out. Self-initiated repair within the same turn may be initiated by varieties of non-lexical speech perturbations such as cut-offs and repetitions, and sound stretches (Schegloff et al., 1977). Similarly, depending on the mini-corpus that this study relies on, in Tigrinya, repair takes place either after part of a word and sometimes even after an entire word or after a long discourse segment is uttered. For instance, as Asgede (2019) mentions, reformulating is dominantly signalled by cut-off words, as can be seen in example (2) below.

(2) (Taken from Asgede (2019: 215))

s'aŋida	ŋingurti	ʔim...	dʒi..	rihus	dʒindʒibil	rihus	dʒindʒibil	ʔabaŋixə	səssəg
s'aŋid	ŋingurt	ʔim...	dʒi..	rihus	dʒindʒibil	rihu	dʒindʒibil	ʔabaŋixə	səssəg
white	onion	DM_PLNPRC	DM_CNVRPR	wet	ginger	wet	ginger	fenugreek	basil

‘Garlic, wet ginger, fenugreek, basil...’

In example (2), the speaker started to utter the word *dʒindʒibil* ‘ginger’ but remembered that the word should be modified by the adjective *rihus* ‘wet’. By implication, the ginger needs to be wet, not dry. It seems that the speaker remembers she had missed a constituent that should describe the partially uttered word; then, she cuts off the word to add an adjective that describes the exact state of the ginger she is referring to. The cut-offs that are considered here are those that initiate repairing (or might have other purposes) but are followed by the corrected/revised version of the repairing source. The current article focuses on such self-initiated repairing trouble sources, repair mechanisms, and repair results.

3 Methods and Data

3.1 Methods and Procedures of Data Collection

3.1.1 Tools of Data Collection

Data was gathered by recording informal interviews, spontaneous conversations, and tales. This was accomplished during a three-month personal field trip, from April 10th to July 17th 2019, in Neksege (located in the Southern Tigray Administrative Zone). The recorded data was processed using software Audacity, and the format was exported as a wav file. The wav files containing the oral data were imported into ELAN, which was used to segment each text into discourse units such as turns, external interventions, sentence and clause boundaries. The segmented data was phonetically transcribed; morphs of each complex word were marked; an English gloss was assigned to each morph, and each discourse unit received a literal and free translation in English.

3.1.2 Data Statement

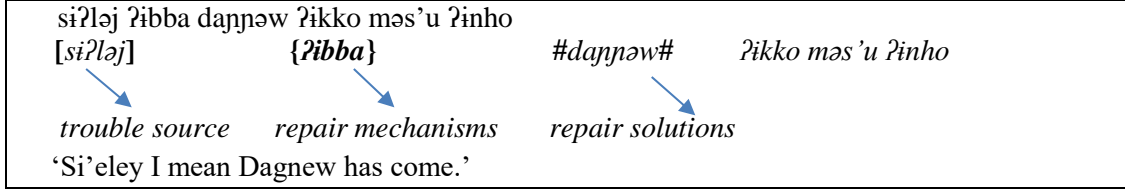
The mini-corpus, temporarily named as Rayya Tigrinya mini-speech corpus, was established during a three-month fieldwork in which the researcher recorded the speech data. The speech corpus was established from recordings of spontaneous conversations, conflict resolutions, informal interviews, descriptions of how to do things, biographies, and tales. Originally, the mini-corpus totalled 24 hours of recorded audio/video data. For research ethics purposes, based on the basic schema recommended by Bender and Friedman (2018), the data statement is detailed as follows. The data was annotated by four annotators who were asked for their judgement on the sources of troubles, self-repairing mechanisms, and self-repair solutions of the 400 identified self-repair markers (for a detailed discussion on the data statement please see Appendix II).

3.1.3 Annotation Protocol

There are established terminologies used in the literature in relation to how to establish structure in the annotation for repair. It is clear that a self-repair is initiated by an original utterance (Hough, 2015) that I prefer to call *trouble source*, which is named as *reparandum* by Meteer et al. (1995) and Shriberg (1994). This type of constituent is split into two, namely start and *reparandum* by Ginzburg et al. (2007). The trouble source of an utterance that underwent repair is defined as “the entire stretch of speech to be deleted” by Shriberg (1994). That constituent is preceded and followed by square brackets [] (as in [constituent]).

The other element that needs clarification is the *repair mechanisms* that are termed as *interregnum* which refers to an editing phase marked by “filled pauses or editing terms” (Meteer et al., 1995; Shriberg, 1994; Hough, 2015). This section is termed as editing term (Ginzburg et al., 2007), editing phase (Levelt, 1983), cut-off to repair (Nakatani and Hirschberg, 1994) and repair initiation (Schegloff, 1992). This part of a constituent is preceded and followed by {} as in {constituent} and in a bold font.

The third concept that is relevant to the present article is *repair solutions* that are named differently in the literature: repair (Hough, 2015; Shriberg, 1994; Meteer et al., 1995), repair proper (Schegloff, 1992), and alteration (Ginzburg et al., 2007). This is marked by # as in #constituent#. This description is explained as follows.



In the literature, an interruption point (Meteer et al., 1995; Shriberg, 1994) named as moment of interruption by Levelt (1983), Blackmer and Mitton (1991), and Ginzburg et al. (2007), that is the moment that appears between the trouble source and repair mechanism, is not considered in the analysis for it demands a different experiment and may not be understood by considering the surface structure of a discourse. Not only that but some authors like Hough (2015) and Ginzburg et al. (2007) mentioned that there is a portion of discourse called continuation that is not considered here for I believe it does not affect the nature of the self-repair.

3.1.4 Inter-Annotator Agreement

Based on an example text that contained 15 repairs, the researcher trained the annotators and raters for half a day. The content of the training was how to identify the repair typologies and how to annotate (transcribe) them. Based on Healey et al. (2005), a short guideline encompassing some detailed points is given to the annotators. For details on the guideline and the mean of the identified self-repair markers, see appendix III.

Considering the total number of repairs identified by the researcher (see Appendix II) and the remaining three annotators, the mean is 390. Therefore, the 400 repairs are accepted as valued and reliable. This is substantiated with the inter-rater agreement among the four raters (including the author) for the categories of self-repairs: trouble sources, repair mechanisms, and results of self-repairs under sections 4.1., 4.2., and 4.3., respectively. The Fleiss’ kappa model is employed to manually compute the inter-rater agreement for there are four raters (more than two raters) and the data is nominal (Fleiss, 1971; 2003).

$$K = \frac{Po - Pe}{1 - Pe}$$
 where K is Fleiss’ kappa; Po is observed agreement, Pe is expected agreement among the raters

The inter-rater agreement for the sources of troubles in self-repair, repair mechanisms, and results of self-repairs is calculated in the analysis section using the Fleiss’ kappa interpretation intervals provided in the equation above.

3.2 Data Analysis Framework

The data analysis framework used is Conversation Analysis (CA), which is a method for studying human social interaction in the field of linguistics (Stivers and Sidnell, 2013). According to Maynard (2013), CA has “established itself as a worldwide theoretical and empirical endeavor concerned with the social scientific understanding and analysis of [human social] interaction”. CA necessitates distinct data derived from spontaneous and naturally occurring social interaction (Maynard, 2013). Maynard (2013) adds that this approach is concerned with how language is used in “social, publicly interpretable methods and behaviors”. CA uses audio and/or video recordings of naturally occurring communicative events like an everyday conversation, instructions/explanations of how to do things, ritual speeches, story tales, and stories of people’s lives to study the detailed actions of participants. The audio-video data is significant because

CA aims to “describe the organization of ordinary social activities such as taking turns at talking” (Mondanda, 2013).

Repair is a common phenomenon in conversation. CA aids in the investigation of how and why repairs are performed. According to Yilmaz (2004), a repair can be initiated by oneself or by someone else. This feature of conversation indicates either disfluencies, difficulties activating language units and/or concepts, hearing, and understanding. Justifying why a speaker requires repair may be difficult because the reasons in most cases are cognitive and remain unknown. Taking an inquisitive look at both the linguistic and social contexts, as well as looking into the meanings and functions of repair mechanisms in the text, can help to uncover the hidden cognitive reasons a speaker performed a repair (Schourup, 1985).

In this regard, CA aided the researcher in examining the corpus neutral of hypothesis or theory; this approach helps to record theory neutral linguistic data. This is what Wong and Waring (2010) refer to as “unmotivated looking”. To make using the CA approach easier, the entire corpus was transcribed. Whenever possible, the transcription included “not only what was said, but also how it was said” (Wooffitt, 2005) by providing literal and free meanings of extractions. Similar to the work of many researchers for other languages (Jabeen et al., 2011; Ward, 1998; Kawamori et al., 1998; Heeman et al., 1999; de Rooji, 2000; Matras, 2000; Bell, 2010; Wang, 2011), here CA is used as a method to analyze the linguistic features and pragmatic functions of trouble sources such as discourse markers, filled pauses, cut-offs, etc. in Tigrinya. Based on the host context, the function and meaning of each identified self-repair marker were considered. Examining what happened to the repair source and its alteration text, it is attempted to investigate repair techniques, reasons for repairing, and devices used to indicate that repairing is being initiated.

4 Data Presentation and Analysis

4.1 Trouble Sources of Self-Repairing

Self-repairing occurs in a conversation for a reason; trouble sources cause a speaker to reconsider a portion of an old utterance. Self-initiated repair is triggered by any of the following conversational issues: diction problems caused by dialect variations and social relationships of the participants, pronunciation errors (and tongue slip), word order issues, missing constituents, focus misplacement, and misunderstandings. The distribution of the problems of the repairs identified from the data is described in the table below for clarity.

Table 1 demonstrates that the majority of the repair initiators are pronunciation errors and tongue slips (90 items), followed by diction problems (68 items), missing constituents (65 items), word order problems (49 items), and misunderstandings (43 items). As demonstrated in Table 2 below, the inter-rater agreement

Trouble/Repair Initiator Types	Total Number of Cases Identified	Percentage
Diction problems	68	17
Dialect Variation	32	47.059
Participants Social Relationship	36	52.941
Pronunciation Errors and Tongue Slips	90	22.5
Word Order Problems	49	12.25
Missing Constituents	65	16.25
Focus Misplacements	33	8.25
Misunderstandings	43	10.75
(Totally) Wrong Constituents	51	12.75
Unidentified	1	0.25
Total	400	100%

Table 1. List of trouble source types.

	Diction Problems	Pron. Errors and Tongue Slips	Word Order Problems	Missing Constituents	Focus Misplacements	Misunderstandings	Wrong Constituents	Unidentified	Sum
Sum	277	349	199	255	141	169	200	10	1600
P	0.173	0.218	0.124	0.159	0.088	0.106	0.125	0.006	

P_o 0.86
P_e 0.153
K 0.835

Table 2. Inter-rater agreement on the trouble sources.

among the four raters on the trouble sources is computed using the Fleiss' kappa model that is represented with the formula mentioned in section 3.1.4 and in Appendix III.

Based on the suggested Fleiss' kappa interpretation (see Table 10 in Appendix III), the inter-rater agreement is 0.835, which is 'almost perfect'.

4.1.1 Pronunciation Errors

Though not universal, and certainly not consistent across data collected from a speech community of a specific language or variety, the data available reveals that the pronunciation problem and tongue slip, which account for 22.5% of the trouble sources of the repairs identified, are the most powerful motivators for speakers to make a conversational repair.

(3) **ARG1** *səlus səlus [lajəs 'a] #nab jəs 'a# ʕidəga [tiχəd] {ʔa...} #tiχəjid# malət ʔiju*
səlus səlus la=jəs'a Na jəs'a ʕidəga ti-χəd ʔa...
b
 Tuesday Tuesday to-Yetsa To Yetsa market 2SM:SBJ-go:IPV part
ti-χəjid malət ʔij-u
 2SM:SBJ-go:IPV means COP-3SM
 'Every Tuesday, you go to Yetsa for Market.'

The proclitic *la=* 'to' in *lajəs 'a* 'to Yetsa' functions similarly to the preposition *nab* 'to' in grammatical and syntactic terms. The speaker has repaired the *lajəs 'a*, which was a source of trouble during the repair, and replaced it with *nab jəs 'a* to correct the way the prepositional phrase should be pronounced. The allative marker in quasi-standard Tigrinya is the preposition *nab* 'to', but it is commonly attached to the next noun by Rayya Tigrinya variety speakers who inhabit in Neksege; by other Rayya Tigrinya variety speaker communities, it is realized as *da=* 'to' as in *daməxələ* 'to Mekele'. In the same turn, the speaker corrected the way he pronounced the word *tiχəd* as *tiχəjid* 'you go'. The problematic and corrected constituents are similar in meaning but differ in pronunciation due to dialectal variation; the source of the repair therefore seems to be a pronunciation problem that arose from dialectal differences between the participants.

4.1.2 Diction Problems

In addition to 'inappropriate' pronunciation, diction-related trouble is a repair initiator. Diction, at least in this article, is influenced by the participants' social relationships as well as dialect variations. This issue accounts for 68 (17%) of the total 400 repairs identified in the mini-corpus.

- (4) **ASG2** *ʔatta ʔabzi labəlaʕinadə ʔabzi tihar.. tiftinwa rihiɣ' vəl*
 ʔatt-a ʔab-ʔiz-i la-bəlaʕ-ina-də ʔabzi tihar..
 VOC-2SM LOC-PRX-2SM PROG-eat:IPV-SJ:1PL-Q LOC-PRX-2SM RPR
ti-ftin-wa rihiɣ' bəl
 2SM:2SBJ-urinate:IPV-FOC away:CN say:IMP:2SM
 'Please urinate away for we are feeding ourselves here.'

The repair initiators are the cut-off constituents of the above extraction; the speaker was to utter *tihari?* 'urinate', which the speech community interprets as derogatory. Instead, the speaker used the repair result constituent *tiftin* 'urinate', which is a meaning extended from 'trying, experimenting'. The repair result constituent *tiftin* 'urinate' is a commonly used word by the quasi-standard Tigrinya speakers and is used in media and written texts across Tigray. The speaker seems to believe that the trouble source constituent is 'inappropriate' in the context of people eating food. Besides, words may be replaced by others as a result of a repair process arising from the participants' social relationships.

- (5) **AST1-3** *[hiləf] #halifom# kəf jivəlu*
 hiləf halif-om kəf ji-bəl-u
 pass:IMP:SJ:2SM pass:IMP-2SM.H sit JUSS-say:IMP-2SM.H
 'Pass through...please be seated in the next seat.'
- QSH1-1** *ʔiffini ʔizi wəddəj marjam taɣibirɣa*
 ʔiffi-ni ʔiz-i wəddi-əj marjam ti-ʔa-ɣibir-ɣa
 okay-PLT PRX-2SM son-RL:1S (Saint) Merry JUSS:SBJ:3SF-CAUS:3SF-respect:IPV-OBJ:2SM
 'Okay, my son! May Saint Merry respect you.'
- AST1-4** *ʔamjən #jik'irta# dəjalələɣukum ʔikko jiʔu ʔatta divəɣukum*
 ʔamjən jik'irta dəj-a-lələj-ɣu-kum ʔikko jiʔ-u
 Amen sorry NEG-CAUS-notice:CN-SJ:1S-OBJ:2SM.H FOC COP-3SM
 ʔatt-a di-bəl-ɣu-kum
 VOC-2SM REL-say:PRV-SJ:1S-OBJ:2SM.H
 Amen! I'm sorry for I called you as if you are my peer for I didn't notice it was you.
- QSH1-2** *dahna ʔizi wəddəj ʔarimɣajjakko*
 dahna ʔiz-i wəddi-əj ʔarim-ɣa-jj-a-kko
 fine PRX-2SM son-RL:1S correct:PRV-SJ:2SM-Ø-OBJ:3SF-FOC
 'My son, do not mention it; you already corrected it (the inappropriate speech).'

As depicted in example (5), *hiləf* '(2SM) pass through' is an imperative mood that is not respectful. The repair result which is *halifom* 'after (2SM.H) pass through' has an honorific marker in it. Even though there is no covered verbal repair initiator, it is understood that the speaker replaces the *hiləf* with *halifom* because the speaker recognizes the addressee is a priest who has a high social class at least from a religious perspective. This becomes clear when the main speaker apologizes which is explicitly communicated by the constituent *jik'irta* 'sorry' (AST1-4) and the other speaker accepts and even acknowledges the interlocutor unknowingly spoke 'inappropriately'.

4.1.3 Missing Constituent

Spontaneous speech has many disfluencies which differentiate spoken genres from written genres. Omitting a constituent is one of the disfluencies. Constituents of a single discourse unit (say for instance a turn) and long constituents (a discourse unit like sentences) might be omitted. The latter refers to missing, for example, a step or steps while describing how to do things or missing part of a plot when narrating stories and tales. This type of conversational feature is another trouble source that leads speakers to self-repair a repairable prior segment.

- (6) **BMA4-51** [*ʔita ʔom*] #*ʔita nəwaḥ ʔom*# *ʔimma hizɣajja ḥiləf laʕaddimma hizɣajja ḥiləf*
 ʔit-a ʔom ʔita nəwaḥ ʔom ʔimma hiz-ɣa-jj-a
 DEST-3SF Tree DEST-3SF long:SF tree FOC hold:IPV-SJ:2SM-Ø-OBJ:3SF
 ḥiləf la-ʕaddi-mma hiz-ɣa-jj-a ḥiləf
 pass:IMP:SJ:2SM ALL-home-FOC hold:IPV-SJ:2SM-Ø-OBJ:3SF pass:IMP:SJ:2SM
 ‘You bring the tree... the long tree to home.’

DMA4-29

lla.. tʃʰəlla
 la.. tʃʰəlla
 RPR okay
 ‘Okay’

Example (6) shows how missing constituents in the same turn initiate repair. The main speaker wants his interlocutor to bring a tree and later he remembered the tree should be not just the tree but the long tree than the other alternative trees. The tree, therefore, needs to be described by the adjective *nəwaḥ* ‘long:SF’. This is the linguistic context that tells the participants that there are two or more trees, and the main speaker is saying that the interlocutor should bring the long tree with the repaired constituent. In the same turn, the main speaker spoke to the addressee to bring the tree to a place that was not mentioned originally in the trouble source; the other participant was also to ask a question and started uttering the word *labəj* ‘to where’ but cut-off as *la...* However, before the interlocutor uttered his question (which seems to not have been heard by the main speaker), the main speaker noticed he had forgotten to mention the destination and repaired the problematic constituent as *laʕadimma hizɣajja ḥiləf* ‘bring it to home:FOC’.

4.1.4 Wrong Constituent

Commonly, speakers utter wrong constituents in their speech. Soon, they repair their speech and replace the wrongly uttered constituent with an appropriate one.

- (7) **KDW1-7** [*siʔləj*] {*ʔibba*} #*daɲnəw*# *ʔikko məs’u ʔinho*
 siʔləj ʔibba daɲnəw ʔikko məs’-u ʔinh-o
 NAME FOC\RPR NAME FOC come:PRV-SJ:3SM exist:IPV-SJ:3SM
 ‘Si’eley **I** mean Dagnev has come.’

In the above excerpt, the speaker wanted to talk about Dagnev but he spoke out Si’eley who is the small brother of Dagnev. Here, the repair is initiated by a trouble source of uttering a wrong constituent. Concerning this, speakers also put constituents in their jumbled order. To fix the wrong constituent, a speaker repairs his or her speech by himself or herself.

4.1.5 Wrong Constituents Order

As can be seen in the following example (8), in the first turn of the extraction, the speaker uttered *bota nifas dinhəwwə* ‘place windy’ but later he noted that the constituents are in their wrong order, and the adjectival phrase *nifaj dinhəwwə* ‘that has wind; windy’ should precede the head noun *bota* ‘place’ that is the intended constituent to be modified by the modifier. The repair is initiated due to the wrongly ordered constituents.

- (8) **BMA4-22** *məḏʒəmərja [bota nifas dinhəwwə] {ʔim} #nifas dinhəwwə bota# timəris’*
 məḏʒəmərja **bota** nifas dinhəwwə ʔim nifas
 first **place** wind REL-exist:IPV-SJ:3SM-OBJ:3SM RPR wind
 di-ʔinh-ə-ww-o **bota** ti-məris’
 REL-exist:IPV-SJ:3SM-OBJ:3SM **place** IMP:2SM-select:IPV
 ‘First, place, you select a windy (specific) place.’

DMA4-17

ʔiʃʃi
 ʔiʃʃi
 Okay
 ‘I am listening to you; please proceed to talk.’

- BMA4-23** *kaʔu [sifih ʔablixa tis 'ərig bota] {malət} #sifih ʔablixa bota tis 'ərig#*
 kaʔu sifih ʔa-bl-i-xa ti-s'ərig **bota** malət sifih
 then wide CAUS-do:IPV-SBJ:2SM IMP:2SM-clean **place** mean wide
ʔablixa **bota** ti-s'ərig
 CAUS-do:IPV-SBJ:2SM **place** IMP:2SM-clean
 'Then, you clean a place wide **I mean** you clean a wide area.'

In the third turn (BMA4-23) of the above excerpt, see how the wrongly ordered constituents are the trouble source of the repair which is initiated by the verbal noun *malət* 'I mean; means'. The noun *bota* 'place' follows the verb *tis 'ərig* 'you clean' (the verb preceded the object) which violates the word order of the language that is S-O-V.

Wrongly ordered constituents refer not only to words but also to long constituents of a discourse. For instance, as can be seen in example (9), the wrongly ordered constituents are two clauses that contain one step each.

- (9) **MQE3-16** *gəβitʃə tɪf'awətləχa [məɖzəmərta ʔimni tarsin kaʔu ʔab χiltə tib'adən] {ʔibba}*
#məɖzəmərta ʔab χiltə tib'adən kaʔu ʔimni tarsin#
 gəβitʃə ti-tʃ'awət-ʔintələ-χa məɖzəmərta ʔimni t-a-rsin kaʔu ʔab
 gebiche IPR-play-when-SBJ:2SM first stone IPV-CAU:2-heat then into
 χiltə ti-b'adən ʔibba məɖzəmərta ʔab χiltə tib'adən kaʔu ʔimni
 two IPV-group:2SM I mean first into two IPV-group:2SM then stone
 t-a-rsin
 IPV-CAU:2-heat
 'When you play *gebiche* (an indigenous game), you first heat stone; then, form two teams; I mean, first, form two teams and heat a stone.'

The first bold constituent in the above excerpt contains two steps that should be completed in a serial order before boys play an indigenous game called *gebiche*; however, the speaker has wrongly first uttered the second step, which is the trouble source of the repair that aims at reconsidering the way the speaker thought the ideas should appear. The second bold portion of the excerpt thus is the corrected order of the steps which were jumbled in the first part of the excerpt.

4.1.6 Focus Misplacement

Though scarcely, focus misplacement is also observed as another type of trouble that motivates speakers to repair their portion of the prior utterance.

- (10) **AGS1-22** *[ʔissu səbʔaj] {ʔik..} #ʔissu ʔikko səbʔaj# jiʔu*
 ʔissu səbʔaj **ʔik..** ʔissu ʔikko səbʔaj jiʔu
 3SM man **RPR** 3SM FOC Man COP-3SM
 'He **man..** He is a man'

The cut-off initiates the repair process. In the repairable segment, the focus was meant in the *səbʔaj* 'man', but the speaker wants to shift the focus from *səbʔaj* 'man' to *ʔissu* 'he' through the process of the repair mechanism.

4.1.7 Perceived Misunderstanding

When a current speaker who controls a particular turn believes that a listener may not understand, or may be confused by the information he/she has just heard, the speaker may repair. Perceived misunderstanding is another cause of repair during a conversation. Misunderstanding is a trouble source that accounts for 10.75% of the total repair sources among the 400 repairs identified.

- (11) **WRA1-7** [*ʔanəs ɣaliʔ wulid jəbləj*]
 ʔanə-s ɣaliʔ wulid jə-bl-ə-j
 1S-FOC another child NEG-say:IPV-RL:1S-NEG
 ‘I do not have another child.’ (lit. He is the only son that I have.)
- WRA1-8** *#miwuladiskka k^wuwank^wa jiʔuwa#*
 miwulad-is-kka k^wuwank^wa jiʔ-u-wa
 giving birth-FOC-FOC language COP-3SM-FOC
 ‘Blood relationship is meaningless.’ (lit. One might have a good child who is not a child by blood.)
- LMA1-11** *ʔiwwə ɬak’iɣi*
 ʔiwwə ɬak’i-ɣi
 yes true-POSS:2SF
 ‘Yes, what you said is true.’
- WRA1-9** *#ʔigzihar jiməsgən ʔisɣatiɣum ʔinhəɣumni# {malətaj} jiʔu*
 ʔigzihar ji-məsgən ʔisɣa-tiɣum ʔinhə-ɣum-ni **malət-əj**
 God JUSS:3SM-thanks 2SM-PL exist:IPV-SJ:2PL-OBJ:1S **means-POSS:1S**
 jiʔ-u
 COP-3SM
 ‘Thanks to God, you are here for me.’
- WRA1-10** *hamʔu gin ʔab məjda wədiɣ’ə ɣ’arjə*
 ham-ʔu gin ʔab məjda wədiɣ’-ə ɣ’arj-ə
 like-3SM but in plain lay:CN-1S remain:PRV-1S
 ‘He have left me alone.’ (lit. As to him, however, I am thrown around the field.)

The excerpt above demonstrates two steps of repair: the main speaker explains why the speaker’s only son, who lives in Jiggiga, did not visit her. She stated in the segment **WRA1-7** that she has no other biological child besides him. She is aware, however, that the listener has acknowledged and assisted her as if she is his biological mother. As a result, the main speaker perceived that the listener might be uncomfortable with what she had said. This perceived misunderstanding motivates her to reframe her speech. The second constituent of the discourse is a softening repair to the previous constituent of the utterance, though there is no explicit repair initiator. When we look at the turn **WRA1-9**, it has a clear repair initiator that is *malətaj* ‘I mean’. This begins as the main speaker expands on the previous turn by providing additional clarification. As a result, perceived misunderstanding is another issue that drives a speaker to make a self-initiated conversational repair.

4.2 Repair Mechanisms

The dominant possible repairing initiations which I call repairing mechanisms markers are the following: cut-offs, filled pauses, particles, predicates, pauses, and non-verbal such as facial expressions and gestures. For details on the repair mechanisms, look at the following table (Table 3).

Type repairing mechanism	Number	Percentage
Cut-offs	238	59.5
Filled Pauses	60	15
Particles	38	9.5
Predicates	32	8
Pauses	21	5.25
Visible only (like Facial Expressions and Gestures)	9	2.25
Unidentified	2	0.5
Total	400	100%

Table 3. Types of repair mechanisms.

	Cut-offs	Filled Pauses	Particles	Predicates	Pauses	Facial Expressions and Gestures	Unidentified	Sum
Sum	948	238	148	128	86	36	16	1600
P	0.593	0.149	0.093	0.08	0.054	0.023	0.01	

Pe 0.392

Po 0.961

K 0.936

Table 4. Inter-rater agreement on the repair mechanisms.

As demonstrated in Table 4, the computed inter-rater agreement is 0.936, which is interpreted as almost perfect agreement (see Table 10 in Appendix III).

To gain an understanding of the repair initiating markers in Tigrinya, let us have a further discussion on each of the techniques with some examples.

4.2.1 Cut-offs

Note that all cut-offs may not necessarily have relations with a repair; for example they may mark hesitations. In the mini corpus, at least 181 cut-offs were found not to have an association with a repair. As roughly examined, most of these 181 cut-offs are associated with the hesitation and/or planning process (see Asgede, 2019).

- (12) **DL2-79** {*?ito..*} #*?isxatiχum naχ'adəm təmharo silə diχonχum gobəzat jəχum*#
?ito.. ?isxatiχum na-χ'adəm təmhari-o silə di-χon-χum gobəz-at
RPR 2PLM POSS-past time student:PL for REL-become-2PL clever-PL
jəχ-um
being-2PL
‘RPR Since you are from the old batches, you are clever students.’

?ito... is part of an unfinished constituent of the host utterance of the main speaker, as shown in example (12). The speaker then begins to utter a different word, indicating that the unfinished word was either inappropriate or incorrect. The process is more of a repair than a hesitation. Distinguishing between repair and hesitation is difficult; when a speaker resumes an utterance with a completely different constituent than the one that was left unfinished, the researcher refers to it as a repair. However, hesitation occurs when the speaker restarts her/his utterance with a similar part of the unfinished part of the language unit.

- (13) **HLF3-33** [*?iti wanna?u*] {*?ik..*} #*?iti wanna k'umnəgərurkko#* *ʕarsixa miχʔal jiʔu*
?iti wanna-ʔ-u **?ik..** ?iti Wanna k'umnəgər-u=kko
DEF:3SGM main-Ø-DEF **RPR** DEF:3SGM Main meaningful-DEF:3SGM=FOC
ʕarsi-χa miχʔal jiʔ-u
self-2SGM help COP-3SGM
‘The main **RPR..** the main *thing* is to be to able help yourself.’

You can see that there is no possible similarity between *?ik..* (the unfinished language unit in example (13) above) and the immediately following word of the same segment. The speaker had recognized *k'umnəgəru* ‘the main thing’ shall receive a focus that is marked by =*kko* that the speaker misplaced. It is for this reason that the speaker cuts off and re-utters as can be seen in example (13).

- (14) **ASG1-7** [ʔiziʔa] {ha..} #ʔiziʔa dibəynas# sələste s'imdi tawʕilila malət jiʔu
 ʔiz-a-ʔ-a ha.. ʔiz-a-ʔ-a di-bəyn-a-s sələste
 PRX-3SF-Ø-SNG:3SF RPR PRX-3SF-Ø-SNG:3SF for-alone-3sf-DM_FOC three
 s'imdi ta-wʕil-ʔil-a malət jiʔ-u
 pair CAUS-spend the day-exist:nonpast-3SF Means COP-3SM
 'This (pointing at a farming land) consumes three pairs.'

The speaker has uttered the unfinished word (*ha..*) that later appeared in his speech as *dibəynas* 'alone:F' which is the second word after the repair is made. In this particular example, the speaker replaced the repair mechanism with a different constituent.

- (15) **GDYI-102** ʔizaw misza bimərfiʔ gəβrina nəgga... niləgba malət jiʔu
 ʔiz-a-w mis-ʔiz-a bimərfiʔ gəβr-ina {nəgga..}
 PRX-3SF-SNG with-PRX-3SF INST-needle use:IPR-1PL RPR
 #ni-ləgb-a# malət jiʔ-u
 SJ:3PL-fasten-OBJ:3SF Means COP-3SM
 'It means we sew this (pointing at a cloth on his left hand) with this one (pointing at a cloth in front of him) using a needle.'
- DMAI-37** ʔih
 ʔih
 PART
 'I am listening; please proceed'
- GDYI-103** kaʔu bək'k'a timəlisxa tibl.. tiχdəna
 kaʔu bək'k'a ti-məlis-xa {tibl..} #ti-χdən-a-#
 then Just REF-back-2SM RPR REF-wear:IPR-OBJ:3SF
 'Then, you just wear it.'

The necessity of repairing may also be for language style or word diction as in example (15). The speaker prefers *niləgba* over *nəga..* (*nəgannanija*) which are synonyms. For diction purposes, the speaker prefers to select a word over another word, but this came to the mind of the speaker after the less preferred word started to come out of the speaker's mouth. The speaker repairs the original speech to put the more appropriate word in the sentence.

4.2.2 Filled Pauses

Filled pauses, also called fillers, are linguistic units that are "used instead of pauses or facial expressions" (Asgede, 2019). In terms of function, fillers "shed light on the speech production process" and are "indicative of the mental processes underlying speech generation" (Swerts, 1998).

In spontaneous interactions, filled pauses signal many other functions, as the speaker is going to repair an original part of the oral discourse. Though it isn't easy to discriminate whether fillers serve different functions like planning process, hesitation, and repair (Hlavac, 2011; Brennan and Williams, 1995; Asgede, 2019), this is noticeable when we look at the repaired portion of the discourse.

- (16) **GNT1-7** s'əva məχ'əmət'i ʔaχ'iha tazəgaḏziw
 s'əba məχ'əmət'i ʔaχ'iha t-a-zəgaḏziw
 milk VN-seat object IPV-CAUS:2SM-prepare
 'You prepare an object to put in milk.'
- DMA6-13** ʔih
 ʔih
 PART
 'I am attending you attentively.'

- GNTI-8** *bimaj bidəmbi gəvirχa tihas'ivo*
 bi-maj bidəmbi gəbir-χa ti-has'ib-o
 INST-water very well do:CN-SJ:2SM IPV:SJ:2SM-wash:IMP-OBJ:3SM
 'You wash it very well with water.'
- DMA6-14** *ʔi...ffɪ*
 ʔi...ffɪ
 Okay
 'That is interesting; would you please proceed to describe.'
- GNTI-9** *kaʔu [tiʕat'ino] {ʔi...} #biʔawliʕ tiʕat'ino#*
 kaʔu ti-ʕat'in-o ʔi... bi-ʔawliʕ ti-ʕat'in-o
 then SJ:2SM-steam:IPV-OBJ:3SM **RPR** INST-olive SJ:2SM-steam:IPV-OBJ:3SM
 'Then, you steam it with an olive.'

The repair in example (16) above aims at inserting a missing constituent. It is marked by a filler *ʔi...* followed by about two seconds' pause. The process, however, does not just repair but has also a planning process. The speaker extends the pause because she wanted to buy time to recall the missed linguistic constituent *biʔawliʕ* 'by olive (tree)'.

4.2.3 Particles

A particle refers to a linguistic unit comprising small words that in most cases are uninflected (Asgede, 2019). The term is used as a collective term for the linguistic expressions like *dəʔa* 'rather', and *ʔibba* '(I) mean'. The particle *ʔibba* 'I mean', which has different functions in different contexts, initiates repair in the following example (17):

- (17) **SPNT1-64** *[hagos] {ʔibba} #fəgunu# məs'iʔudə*
 hagos ʔibba fəggunu məs'iʔ-u-də
 NAME **RPR** NAME come:PRV-3SM
 'Did Hagos *I mean* Shegunu come?'

In example (17), the particle *ʔibba* 'I mean' appeared between two proper nouns (Hagos and Shegunu). This particular particle functions as a replacive marker from the possible alternative names that the speaker knows and associates with another. Such wrong constituents and their corrected constituents appear as part of the conversation disfluencies because the constituents have some close associations in the speaker's mind. Here in the above example, the two proper nouns name two brothers; thus, the speaker uttered the first one wrongly, which is repaired later.

The repair initiation that is *ʔibba* 'I mean' is a particle. Another particle that could have replaced the mentioned particle is *dəʔa* 'rather' which is also realized as *dəʔam* 'rather' in the corpus. The latter is used to initiate as a speaker repairs a portion of a prior utterance that asks for confirmation by oneself. For example, *hagos dəjiʔu diməs'ilo fəgunu? fəgunu dəʔa* 'Is that Hagos or Shegunu who is coming? It is rather Shegunu' is a typical example that depicts how *dəʔa* 'rather' is used to initiate a repair. The difference between these two particles is that the first one is used before the repaired part of an utterance but the latter one appears after the repaired part of an utterance. These instance functions of the two particles ensure that particles are used to initiate repair by Tigrinya speakers.

4.2.4 Predicates

Predicates in this paper are consumed as words and/or phrases that have the qualities that a verb has in Tigrinya. For example, the verbal noun *malətaj* 'I mean', the verbal phrases *ʔajχonχuj* 'I am not', *ʔijʔoj* 'No' are examples of linguistic constituents consumed as predicates. A speaker may also reformulate part of her/his speech after uttering a whole word. Unlike cut-offs, lexical constituents index repair, which implies that a speaker gets cognizant that she or he needs to mark a reformulation after a word is uttered.

- (18) **DM1-20** *gidəj hindej ʕamətu jiʔu bisruχə məʔazi jiʔu ditwələdə*
 gidəj hindej ʕamət-u jiʔ-u bi-sr-u-χə məʔazi jiʔ-u
 NAME how many year:POSS:3SM COP-3SM ABL-root-3SM-Q when COP-3SM
 di-t-wələdə-ə
 REL-PRV-birth:SJ:3SM
 ‘How old is Gidey? When was he born?’
- MA1-61** *[bizəmənə ʕintʃiwa ʔikko jiʔu ditwələdə]*
 bi-zəmən-ə ʕintʃiwa ʔikko jiʔ-u di-t-wələdə-ə
 by-time-of rat FOC COP-3SM REL-PRV-birth:SJ:3SM
 ‘It is on the rat’s era.’
- MA1-62** *{ʔijʔoj} #zəmənə ʕintʃiwa ʕalifus biχiltə ʕamətu dəʔa məsəlani ʔatta#*
 ʔijʔoj zəmən-ə ʕintʃiwa ʕalifus bi-χiltə ʕamətu dəʔa
 no time-of rat pass:PRV-3SM-FOC by-two year-POSS:3SM FOC
 məsəl-ə-ni ʔatt-a
 look:IPV-OB:3SM-SJ:1S VOC-2SM
 ‘No, I think it is actually two years after the Rat’s era.’

The constituent *ʔijʔoj* ‘no’ initiates a repair. Here the repairable is one complete sentence that is segmented as one discourse unit. It indicates that the previous segment is wrong and should be repaired. It indexes that the host segment is a repaired form of the trouble source. The linguistic constituent *ʔijʔoj* ‘no’ points back to the original segment and fore to the altered segment. It, therefore, indexes the host segment is repaired.

Repair is also made even after long trouble source constituents of a discourse are articulated as can be seen in example (18) above. Based on the mini-corpus, *ʔajχonχuj* ‘No! I am not’ also has a similar function with *ʔijʔoj* ‘no’. This linguistic unit (*ʔajχonχuj* ‘No! I am not’) has a morpheme that marks an agreement (*ʔaj-χon-χu-j* NEG-become:IPV-1S-NEG). This phrasal constituent initiates that the prior segment was inappropriate and a revised replacement for it is to come.

4.2.5 Pauses and Non-Verbal Signals

Long pauses may also indicate that a speaker is about to repair a portion of an original problematic utterance. Furthermore, nonverbal signals such as facial expressions and gestures, which usually accompany verbal repair initiators, can independently indicate that a repair is about to take place. Nodding left and right, for example, may indicate that the speaker recognizes his original speech is problematic and intends to replace it. Furthermore, twinkling one’s eyes or closing both eyes may indicate that the speaker is about to repair a part of a problematic original utterance.

4.3 Results of Self-Repair

As highlighted in the introduction, self-repair refers to self-correcting an error or inappropriate expression of an original part of an utterance. This conversational feature allows to expand an idea, replacing a constituent or an entire turn, reorder constituents, restart a turn or part of a turn, and insert a forgotten but relevant constituent.

Repair results	Total Number of Cases Identified	Percentage
Expanding	92	23
Replacing	91	22.75
Re-ordering	82	20.5
Restarting	70	17.5
Inserting	65	16.25
Total	400	100%

Table 5. List of self-repair results.

	Expanding	Replacing	Re-ordering	Restarting	Inserting	Sum
Sum	328	363	331	335	243	1600
P	0.205	0.227	0.207	0.209	0.152	

Pe 0.203

Po 0.733

K 0.665

Table 6. Inter-rater agreement on the results of self-repairs.

As depicted in Table 6, the inter-rater agreement is 0.665 which is interpreted as substantially relevant agreement according to Fleiss' kappa (see Table 10 in Appendix III).

After conducting a detailed investigation, the author found that expanding (92 cases) and replacing (91 cases) are the most frequently observed results of self-repair in Tigrinya. The description of each self-repair result will be presented in the following pages.

4.3.1 Expanding

By expanding, a speaker seeks to clarify or reformulate how a concept was communicated in a previous turn. Such justifications or rephrasing are added by speakers to facilitate smooth contact with their correspondents. For instance, an explanation might be significant to clarify concepts, and rephrasing might be relevant to present ideas in a new way so that the listener has other options for comprehending the argument made by the utterances. *malət* 'means', is a very frequently used lexeme in Tigrinya to convey a further elaboration. In real speech, *malət*, 'means', is most often realized as *malətəj* 'I mean'.

(19) **BLY1-21** *fiba di?əxonuj*

fiba di?ə-xon-u-j

paralyze FOC-become:IPV-SJ:3PLM-FOC

'They rather are unskilled (lit. They rather are paralyzed.).

BLY1-22 *malətəjssi suχ'lom mit'rom ʔahivt'om haməj wulom kisərihu miwdildal dəʔam*

malət-əj-ssi suχ'-bil-om mit'ri-om ʔa-hibt'-om

means-POSS:1S-FOC quiet-say:IPV-SJ:3PLM buttocks CAUS-fat:PRV-SJ:3PLM

haməj wul-om ki-sərih-u mi-wdildal dəʔam

How say:CN-3PLM IPV:3-work-SJ:3PLM VN-idle FOC

'I mean that they can't do a job except wondering here and there with their big physical appearance.'

The lexeme *malətəj* 'I mean' in example (19) above indicates to the listener that the speaker is about to reformulate the way an idea was described. An explanation and justification of the prior discourse unit's claim is presented in the turn that hosts the reformulation initiator lexeme. The 'students' that are the issue of the discussion, are ineffective in assisting their parents because the students lack the skill and gut and that is described as 'they are paralyzed'. The speaker goes on to explain that the students are weak and prefer to wander here and there rather than be engaged in some livelihood activities on which their parents rely. In the repairing segment, the speaker explains why he described them as "paralyzed" in the repairable segment. He means that, in contrast to their chiseled bodies, they are unqualified and uninterested in assisting their parents in any way. The verbal noun *malətəj* 'I mean' appears at the initial position of the repaired segment as depicted in example (19) above. It also appears to be a final position of the repaired constituent but before a copular verb as in *suχ'lom mit'rom ʔahivt'om haməj wulom kisərihu miwdildal*

dəʔam malətəj jiʔu ‘I mean that they can’t do a job except wondering here and there with their big physical appearance.’

4.3.2 Replacement

The second type of repair result is a replacement which refers to replacing a wrongly uttered constituent with a correct one. This is initiated by different linguistic units. Predicative lexemes such as *ʔajxonxuj* ‘no, I am not’ and particles such as *ʔibba* ‘I mean’ are the most common lexical devices that initiate a replacement.

- (20) **DM1-96** *ʔajjaʔə ʔajəʕawuji məʔazi jiʔu dimotə*
 ʔajja-jjə ʔajə-ʕawuji məʔazi ji-ʔu di-mot-ə
 father-RL:1S father-big when COP-3SM REL-death:PRV-SJ:3SM
 ‘Father, when did Grandpa die?’
- MA1-221** *ʕasərtə ʕamətu ʕojnuwwo*
 ʕasərtə ʕamət-u ʕojn-u-ww-o
 ten year-poss.3sm become:IPV-SJ.3SM-OBJ.3SM
 ‘Ten years have passed.’ (lit. It has been ten years.)
- MA1-222** *ʔajxonxuj ʕasərtə ʕamuʕtə ʕamətu dəʔatta*
ʔaj-xon-xu-j ʕasərtə ʕamuʕtə ʕamət-u dəʔa-tta
 NEG-become:IPV-1S-NEG Ten Five year-POSS.3SM DM_FOC-VOC.2SM
 ‘It was rather fifteen years ago.’

As can be seen in example (20) above, *ʔajxonxuj* ‘No, I am not’ indicates that the following utterance is going to replace a prior portion of discourse. So, it is not 10 years since the grandpa is died but 15 years.

- (21) **SPNT1-127** *ʕagaj ʕagaj ʔibba ʕirəmti ʕirəmti ʔabəj lahləfʕajjo jiʔu hindizi dit’əfaʔxa*
 ʕagaj ʕagaj ʔibba ʕirəmti ʕirəmti ʔabəj
 winter winter RPR summer summer where
la-ʕləf-ʕa-jj-o jiʔ-u hindi-zi di-t’əfaʔ-ʕa
 PROG-spend:IPV-SJ.2SM-Ø-OBJ.3SM COP-3SM much-PRX.3SM REL-lost:PRV-SJ.2SM
 ‘Where have you been spending every winter **I mean** every summer that you have been missing for so long? .’

The particle *ʔibba* ‘rather, I mean’ in this particular context is another replacive marker. It appears between the problematic portion of the prior discourse unit and its corrected constituents. As can be seen in example (21) above, *ʔibba* ‘rather, I mean’ appeared between *ʕagaj ʕagaj* ‘every winter’ and *ʕirəmti ʕirəmti* ‘every summer’ so that the latter one is the constituent that replaces the former *ʕagaj ʕagaj* ‘every winter’, that is, the repairable one.

4.3.3 Insertion

Insertion refers to adding a constituent which was missed in the repairable portion of an utterance. The inserted constituent can be a word, phrase, clause and/ or sentence. It may be initiated by cut-offs, fillers, particles, or predicative words.

- (22) **GNT1-10** *kaʔu laʕadinʕa guhatij miʕətij s’əva tawahliləllu*
 kaʔu la-ʕadin-ʕa guhat-ij miʕət-ij s’əba
 then PROG-close:CN-3SM morning-and evening-and milk
 ta-wahlil-ə-ll-u
 cAUS-store-SJ.2SM-BEN-OBJ.3SM
 ‘Every morning and evening, you store (milk) in it.’

GNT1-11 *bidawahləlixa tihak'uno s'inah medzəmerija tarig?o də?a ka?u tihak'uno*
 bid-a-wahləl-iṣa ti-ḥak'un-o s'inah medzəmerija
 after-CAUS-store-SJ.3SM IPV-churn: SJ.2SM-OBJ.3SM wait: SJ.2SM first
 ta-rig?-o **də?a** ka?u ti-ḥak'un-o
 IPV-CAUS-coagulate: SJ.2SM-OBJ.3SM **rather** then IPV-churn: SJ.2SM-OBJ.3SM
 'After you store it, you churn it; wait, first you let it coagulate rather then churn it.'

The particle *də?a* 'rather' that functions, in most cases, to selectively emphasize a constituent, appears next to a linguistic constituent that replaces a problematic portion of a prior discourse. In the above excerpt, the speaker uttered *s'inah* 'wait' which directly tells us something went wrong with the prior discourse; it, however, doesn't directly index a repair. Next to that, the speaker added a new step *medzəmerija tarig?o* 'first you let it coagulate' that should precede a step that was stated in the prior constituent of the turn *tihak'uno* 'you churn it'. As you can see in the excerpt, the repaired segment is followed by the selective repair indicator. Syntactically, this particle is different from the particle *ʔibba* 'rather, I mean'. The former appears next to the repairing segment whereas the latter appears between the repairable and the repairing segment.

4.3.4 Restart

Restart, at least in this paper, refers to a conversational strategy by which a speaker stops/aborts speaking and then restarts either with a modified version of the prior portion of discourse or with a new idea that is different from the trouble source.

(23) **BLY1-001** *suməj girmaj hagos ʔə... ʔiʃfi suməj girmaj hagos hagos huluf huluf ʔaləm ʔaləm*
s'adiχ' ji?u
 sum-əj girmaj hagos ʔə... ʔiʃfi suməj girmaj hagos
 name-POSS:1S NAME NAME RPR Okay name-POSS:1S NAME NAME
 hagos huluf huluf ʔaləm ʔaləm s'adiχ' ji?u
 NAME NAME NAME NAME NAME NAME COP-3SM
 'My name Girmay Hagos ʔə... okay my name is Girmay Hagos Huluf Alem
 Tsadik.'

As can be seen in example (23) above, the speaker aborts speaking about himself and restarts after he has taken his time to reorganize his speech. The speaker gets stuck into uttering his grandpa's name and thus stops speaking. The speaker then restarts his talk with the same content as the trouble source segment. This was initiated by the filler *ʔə* which is followed by the stretched vowel sound that is marked by three dots (...). That again is followed by the particle *ʔiʃfi* 'okay' that can be considered as a false starter. The speaker reorganizes his idea and restarts.

However, as we can see from example (24) below, the speaker aborts speaking in a plan to come up with a different point of discussion. The speaker stops talking about the previous topic and shifts the point of discussion to another. Such a repair is indicated by *hidəgo ʔisti* 'please leave it' which states that the speaker is no more interested in talking about the issue. That again closed with the enclitic =*wa* that is attached to the last constituent of the repairable segment. The purpose of such repair to restart is to change a point of discussion – here from talking about the challenges the speaker is facing to asking about the health of the correspondent's family.

(24) **BLY1-111** *ʔittom ʔahwatəj bigirat tis'al?om ʔajnəgagəruj*
 ʔitt-om ʔa-haw-at-əj bi-girat ti-s'al?-om
 DST-3PLM PL-brother-PL-RL:1S INST-farmland PRV-oppose-SJ:3PLM
 ʔaj-nəgagər-u-j
 NEG-speak:REF-3PLM-NEG
 'My brothers do not speak to each other because they are in disagreement over a
 farmland.'

- BLY1-112** *ʔaddəjjəllə mis ʔakkojjə binaddiʔom wursi tis'alʔom firdi vət məlaləsləwu*
 ʔaddo-jj-ə-llə mis ʔakko-jjə bi-na-addo-ʔ-om wursi
 mother-Ø-RL:1S-and with uncle-RL:1S INST-POSS-mother-Ø-3PLM heirloom
 ti-s'alʔi-om firdi bət məlaləs-ʔillə-w-u
 REC-quarrel-3PLM Justice house ambulation-exist:IPV-SJ:3PLM
 'My mother is currently in a quarrel with my uncle, and they are going to court.'
- BLY1-113** *hidəgo ʔisti ʔanə ʔagnijəjjo dinhəxu gudwa... ʕijjal haməj ʔinhəwu*
hidəg-o ʔisti ʔanə ʔa-gnij-ə-jj-o
 leave.IMP:SJ.2SM-OBJ.3SM part 1S CAUS-find:CN-SBJ.1S-OBJ.3SM
 di-ʔinh-ə-χu gud=**wa**...
 REL-exist:PRV-OBJ.3SM-SJ.1S bad thing-RPR
 'Please leave the people I am dealing with..., how are all your family members?'

Besides, a speaker repairs a portion of a prior segment to restart an utterance to shift from sticking to one detail to another without leaving the major point of discussion. The last turn of example (25) below has a particle *wa* which can be roughly translated as 'whatever', and is used to initiate a shift from talking about the weakness of the students to a possible alternative that they may excel at, that is, being clever students.

- (25) **BLY1-21** *ʃiba diʔəχonuj*
 ʃiba diʔə-χon-u-j
 paralyze FOC-become:IPV-SJ:3PLM-FOC
 'They are rather unskilled' (lit. They are are paralyzed.).
- BLY1-22** *malətəjssi suχ'lom mit'rom ʔahivt'om haməj wulom kisərihu miwdildal dəʔam*
 malət-əj-ssi suχ'-bil-om mit'ri-om ʔa-hibt'-om
 means-POSS:1S-FOC quiet-say:IPV-SJ:3PLM Buttocks CAUS-fat:PRV-SJ:3PLM
 haməj wul-om ki-sərih-u mi-wdildal dəʔa-m
 how say:CN-3PLM IPV:3-work-SJ:3PLM VN-idle FOC-FOC
 'This (pointing at a farming field) requires three pairs of oxen to plow.'
- BLY1-23** *ʔazatomu haməj... wa... ʔatta timhirtom hamgobəzullə ʕj'əllə neviru*
 ʔaz-atomu haməj... **wa**... ʔatt-a timhirti-om
 PRX.3PLM how **RPR** VOC-2SM education-POSS:3PLM
 ham-gobəz-u-llə ʕj'əllə nebir-u
 if-excel:IPV-SJ.3PLM-and Okay exist:PRV-3SM
 'How could they ...**whatever**... it could have been fine if they had excelled in their education.'

In example (26) below, the speaker restarts the turn at the fifth constituent of the turn. The repair operation results in deleting or leaving out some non-relevant portion of the trouble source. Thus, the first four constituent words of the trouble source, i.e., *ʔindir haftam tiχon dalχamma* 'see, if you want to be rich' are replaced by *haftam dimuχ'an* 'to be rich' by a restarting mechanism; while two constituents are deleted, one is modified and another constituent is maintained as it originally was in the repairing segment.

- (26) **MA2-78** *ʔindihir haftam tiχon dalχamma haftam dimuχ'an hiras dəjmibzah jiʔu*
 ʔindihir haftam tiχon dalij-χa-mma haftam di-muχ'an
 If rich IPV:2-become want:IPV-SJ:2SM-FOC rich PUR-become
 hiras dəjmibzah jiʔ-u
 sleep NEG-multiple COP-3SM
 'If you really want to be rich, to be rich, you can not sleep too much.'

4.3.5 Reordering

Constituents might appear in a portion of a prior utterance as a source of trouble that results in reordering them. As can be seen in example (10), a sentence or long constituents may take the wrong order in speech.

The most common wrong order found in the data is short constituents like words as can be seen in example (27) below.

- (27) **MA1-143** *ʔisumma bələj ʔadanə ʔibba ʔadanə bələj jiʔu simu*
 ʔisu-mma bələj ʔadanə ʔibba ʔadanə bələj jiʔ-u sim-u
 2SM-FOC NAME NAME mean NAME NAME COP-3SM name-POSS:3SM
 ‘That one’s name is BelayAdane I mean Adene Belay.’

Here in this example, the trouble source is the wrong order of the first name and middle. The self-repair initiated by the particle *ʔibba* ‘(I) mean’ results in reordering the wrongly ordered nouns in the repairable portion of the utterance.

5 Discussion and Recommendation

Like many language speakers in the world (Fox et al., 2013), Tigrinya speakers often repair portions of their prior utterances that appear to be ‘inappropriate’. The inappropriateness of a portion of an utterance may or not have an association with ‘error’. Through data analysis, 400 repairs have been identified. These identified repairs resulted from various sources of trouble. The almost perfect Fleiss’ kappa inter-rater agreement (0.835) indicates that the most common sources of repair are pronunciation (0.218), diction (0.173), missing constituents (0.159), wrong constituents (0.125), word order issues (0.124), misunderstandings (0.106), and focus misplacement (0.088). It was observed that the pronunciation and diction issues are related with dialect differences. The paper highlights that more than half of the diction problem sources for self-repair is not related to dialectical variation. These sources of repair, however, need a further study on statistically showing to what degree dialect variation impacts pronunciation and diction issues in speech.

Pronunciation-related problems resulted from tongue slip and the dialect variation. The data was recorded in the presence of the researcher, who had been away from the area for about 15 years. It seems that the participants (wrongly) perceived that the researcher preferred to hear the lexemes as they are pronounced in the quasi-standard Tigrinya used in education, media, and offices at various levels; six of the recorded participants explained this while we held informal discussions about what they repair and replace words for. A participant might repair *lajəs’a* to *nab jəs’a* ‘to Yetsa’ and *tiḫəd* to *tiḫəjid* ‘you go’. How such issues work in the conversations of speakers of other varieties of the language (and other languages spoken in Ethiopia too) is left for further research. In addition to the dialectical variation, triggered repair to replace a lexical item, interpersonal relationships among participants is another trouble source. For example, the constituent *hiləf* ‘(you:2SM) pass through’ is replaced by *hiləfu* ‘(you:2SM.H) pass through’ for the participants’ social status variation; *tihari?* is replaced by *tiftin* ‘urinate’ for diction purposes that have implications on the participants’ dialect variation background. When speakers speak out constituents such as improper nouns in a specific context, they use the particle *ʔibba* between the repairable and the repaired which indexes repair. This uncovers the fact that Tigrinya honorific grammatical feature has impact on how interlocutors interact with one another.

Different linguistic devices initiate self-repair. Cut-offs that do not directly index self-repair as well as filled pauses which have multiple functions in conversation are used. Cut-offs that are the dominant self-repairs (0.593) have other functions: planning process being the most common one (Asgede, 2019). There is a need to study how cut-offs are distributed and used in speech independently. Predicative phrases like *ʔajxonxuj* ‘I am not’ and *ʔijʔoj* ‘no’ as well as particles such as *ʔibba* ‘I mean’ and *dəʔa* ‘rather’ are used to initiate self-repair. As stated in different empirical studies in different languages (Ginzburg et al., 2007), self-repair also is done without any repair marker; initiators are therefore not mandatory in Tigrinya too. That seems the reason why pauses and nonverbal cues that speakers may leave out of their utterance can initiate self-repairs. These findings match with what Shriberg (1994) found out, that lexical items and disfluencies such as filled pauses initiate self-repair. This also implies that self-repair can be ‘explicitly’ marked by linguistic and non-linguistic constituents as mentioned by Meteer et al. (1995).

Different types of self-repair result in different operations. For example, self-repair may be used to expand an idea presented in a previous section of discourse, which is most commonly initiated by the verbal noun *malət* ‘means’. Self-repair may also result in replacing a wrongly uttered constituent, initiated by predicative phrases such as *ʔajxonxuj* ‘I am not’ and *ʔijʔoj* ‘no’ and the particle *ʔibba* ‘I mean’. A particle *dəʔa* ‘rather’ initiates the insertion of a missing constituent.

Finally, though it would have been possible to study the phonetics features of every repair initiator and its categorizations, how self-repair relates with the syntactic features of Tigrinya, repair in the process of language acquisition and learning, thorough discussion on the relationship between self-repair and the demographic features of participants, etc., they are left aside and the author recommends such issues for further investigation.

References

- Dagnew Mache Asgede (2007). *Tigrinya Dialectal Variations between Rayya and Adwa*. Arba-Minch University: Senior Essay.
- Dagnew Mache Asgede (2019). *Discourse Markers in Rayya Tigrinya: Documentation and Linguistic Analysis*. Dissertation. Addis Ababa University. <http://etd.aau.edu.et/handle/123456789/24899>
- Dagnew Mache Asgede (2023). Backchannels in Tigrinya. *Ethiopian Journal of Business and Social Science*, 6(1), pp. 15-35. <https://doi.org/10.59122/144F59lk>
- David M. Bell (2010). Nevertheless, Still, and Yet: Concessive Cancellative Discourse Markers. *Journal of Pragmatics*, 42, 1912-1927.
- Emily M. Bender and Batya Friedman (2018). Data Statements for Natural Language Processing: Toward Mitigating System Bias and Enabling Better Science. *Transactions of the Association for Computational Linguistics*, 6:587–604.
- Elisabeth R. Blackmer and Janet L. Mitton (1991). Theories of monitoring and timing of repairs in spontaneous speech. *Cognition*, 39:173–194.
- Hatte Anne Blejer (1986). *Discourse Markers in Early Semitic, and Their Reanalysis in Subsequent Dialects*. Dissertation. The University of Texas at Austin.
- Susan Brennan and Maurice Williams (1995). The Feeling of another’s Knowing: Prosody and Filled Pauses as Cues to Listeners about the Metacognitive States of Speakers. *Journal of Memory and Language*, 34:383–398.
- Susan Brennan and Michael Schober (2001). How listeners compensate for disfluencies in spontaneous speech. *Journal of Memory and Language*, 44:274–296.
- James Deese (1984). *Thoughts into Speech: the Psychology of a Language*. Prentice-Hall, Englewood Cliffs, NJ.
- Vincent A. de Rooji (2000). French Discourse Markers in Shaba Swahili Conversations. *The International Journal of Bilingualism*, 4.4:447-467.
- Joseph L. Fleiss (1971). Measuring nominal scale agreement among many raters. *Psychological Bulletin*, 76:378-382.

- Joseph L. Fleiss, Bruce Levin, and Myunghee C. Paik (2003). *Statistical methods for rates and proportions* (3rd ed.). Hoboken, NJ: Wiley.
- Barbara A. Fox, Makoto Hayashi, and Robert Jasperson (1996). Resources and repair: a cross-linguistic study of syntax and repair. In E. Ochs, E. A. Schegloff, & S. A. Thompson (Eds.), *Interaction and Grammar* (pp. 185–237) chapter, Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511620874.004>
- Barbara A. Fox, Trevor Benjamin, and Harrie Mazeland (2013). Conversational Analysis and Repair Organization: Overview. In C. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*. <https://onlinelibrary.wiley.com/doi/10.1002/9781405198431.wbeal1314>
- Jonathan Ginzburg, Raquel Fernández, and David Schlangen (2007). Unifying self-and other-repair. In *Decalog 2007: Proceedings of the eleventh Workshop on the Semantics and Pragmatics of Dialogue*, May 30-June 1 2007, Rovereto, Italy.
- Abraham Girmay (2012). *Language Shift in Progress in the Raya Variety of Tigrinya: The Case of Alamata and Kobo Weredas*. MA Thesis. Addis Ababa: Addis Ababa University.
- Kieu-Phuong Ha and Martine Grice (2017). Tone and Intonation in Discourse Management-How Do Speakers of Standard Vietnamese Initiate a Repair? *Journal of Pragmatics*, 107:60-83.
- Patrick G. Healey, Marcus Colman, and Mike Thirlwell (2005). Analysing Multimodal Communication: Repair-Based Measures of Human Communicative Coordination. *Advances in Natural Multimodal Dialogue Systems*, 113-129.
- Peter A. Heeman and James F. Allen (1999). Speech Repairs, Intonational Phrases, and Discourse Markers: Modeling Speakers' Utterance in Spoken Dialogue. *Association for Computational Linguistics*, 25.4, 528-571.
- Jim Hlavac (2011). Hesitation and Monitoring Phenomena in Bilingual Speech: A Consequence of Code-switching or a Strategy to Facilitate its Incorporation? *Journal of Pragmatics*, 43:3793–3806. <https://doi.org/10.1016/j.pragma.2011.09.008>
- Julian Hough (2015). *Modelling Incremental Self-Repair Processing in Dialogue*. Unpublished PhD thesis. Queen Mary University of London. <http://qmro.qmul.ac.uk/xmlui/handle/123456789/9094>
- Farhat Jabeen, Asim M. Asim Rai, and Sara Arif (2011). A Corpus-Based Study of Discourse Markers in British and Pakistani Speech. In *International Journal of Language Studies (IJLS)*, 5(4):69-86.
- Masahito Kawamori, Takeshi Kawabata, and Akira Shimazu (1998). Discourse Markers in Spontaneous Dialogue: A Corpus-Based Study of Japanese and English. In Manfred Stede, Leo Wanner and Eduard Hovy (eds.), *Discourse Relations and Discourse Markers: Proceedings of the Workshop*, 93-99. Canada: Montreal: Universite de Montreal.
- Tsehay Kiros (2009). *A Comparison of Wajerat Tigrinya Vs. Standard Tigrinya*. MA Thesis: Addis Ababa: Addis Ababa University.
- Willem J. Levelt (1983). Monitoring and self-repair in speech. *Cognition*, 14(4):41–104.

- Yaron Matras (2000). Fusion and the Cognitive Basis for the Bilingual Discourse Markers. *The International Journal of Bilingualism*, 4.4, 505-528.
- Douglas W. Maynard (2013). Everyone and No One to Turn to: Intellectual Roots and Contexts for Conversation Analysis. In Jack Sidnell and Tanya Stivers (eds.), *The Handbook of Conversation Analysis*, 11-31. West Sussex: Wiley-Blackwell.
- Niguss Weldezu Mehari (2011). *The Impacts of Rayya Dialectal Variations and the Influence of Amharic on Medium of Instruction: The Case of Alamata Primary Schools*. Addis Ababa University. MA Thesis. <http://etd.aau.edu.et/handle/123456789/16280>
- Niguss Weldezu Mehari. (2021). *A Grammar of Rayya Tigrinya*. Addis Ababa University. Dissertation.
- Marie W. Meteer, Ann A. Taylor, R. MacIntyre, and R. Iyer (1995). Dysfluency annotation stylebook for the Switchboard corpus. Philadelphia, PA: University of Pennsylvania.
- Lorenza Mondanda (2013). The Conversation Analytic Approach to Data Collection. In Jack Sidnell and Tanya Stivers (eds.), *The Handbook of Conversation Analysis*, 32-56. West Sussex: Wiley-Blackwell.
- Andrew Murphy (2019). Resolving conflicts with violable constraints: On the cross-modular parallelism of repairs. *Glossa: a journal of general linguistics*, 4(1): 9. 1–39. <https://doi.org/10.5334/gjgl.608>
- Christine H. Nakatani and Julia Hirschberg (1994). A corpus-based study of repair cues in spontaneous speech. *Journal of the Acoustical Society of America*, 95(3), pp. 1603-1616. <https://doi.org/10.1121/1.408547>
- Gessesse Nigusse (2012). *Language Use in the Criminal Justice Process: The Case of Raya Alamata Woreda in Tigray Region*. MA Thesis. Addis Ababa: Addis Ababa University.
- Emanuel A. Schegloff (1992). Repair after next turn: The last structurally provided defense of intersubjectivity in conversation. *American Journal of Sociology*, V-97: pp. 1295–1345. <https://www.journals.uchicago.edu/doi/10.1086/229903>
- Emanuel Schegloff, Gail Jefferson, and Harvey Sacks (1977). The preference for Self-correction of Repair in Conversation. *Language*, 53(2):361-382. <https://doi.org/10.2307/413107>
- Lawrence Schourup (1985). *Common Discourse Particles in English Conversation: 'like', 'well', 'y'know'*. New York: Garland.
- Elizabeth E. Shriberg (1994). *Preliminaries to a theory of speech disfluencies*. Ph.D. thesis, University of California at Berkeley, Berkeley, USA.
- Tanya Stivers and Jack Sidnell (2013). Introduction. In Jack Sidnell and Tanya Stivers (eds.), *The Handbook of Conversation Analysis*, 1-8. West Sussex: Wiley-Blackwell.
- Marc Swerts (1998). Filled pauses as markers of discourse structure. *Journal of Pragmatics*, 30(4):485-496. [https://doi.org/10.1016/S0378-2166\(98\)00014-9](https://doi.org/10.1016/S0378-2166(98)00014-9)
- Tsehay Teferra (1979). *Reference Grammar of Tigrinya*. Doctoral Dissertation. Washington, D.C.: Georgetown University.

- Yan Wang (2011). A Discourse-Pragmatic Functional Study of the Discourse markers Japanese Ano and Chinese Nage. *Intercultural Communication Studies*, 20.2, 41-61.
- Nigel Ward (1998). Some Exotic Discourse Markers of Spoken Dialog. In Manfred Stede, Leo Wanner and Eduard Hovy (eds.), *Discourse Relations and Discourse Markers: Proceedings of the Workshop*, 62-64. Canada: Montreal: Universite de Montreal.
- Jean Wong and Hansun Z. Waring (2010). *Conversation Analysis and Second Language Pedagogy: A Practical Guide to ESL/EFL Teachers*. Routledge. New York and London.
- Robin Wooffitt (2005). *Conversation Analysis and Discourse Analysis: A Comparative & Critical Introduction*. SAGE Publications. London, Thousand Oaks & New Delhi.
- Erkan Yilmaz (2004). *A Pragmatic Analysis of Turkish Discourse Particles: Yani, İşte and Şey*. Doctoral Dissertation: Middle East Technical University.
- Tesfay Tewolde Yohannes (2002). *A Modern Grammar of Tigrinya*. Rome, Tipografia U.Detti-Via G.Savonarola.

Appendix I: Transcription Conventions and Symbols

The data was transcribed and annotated phonetically; the detailed annotation that includes gloss for every morph and free translation is helpful for the readers who do not speak and read Tigrinya. For readability, the transcription conventions used in the excerpts presented in this paper are the following:

1	first person	NEG	negative
2	second person	Ø	zero meaning
3	third person	OBJ	object
ALL	allative	PART	particle
BEN	beneficiary	PL	plural
CAUS	causative	PLNPRC	planning process
CN	converb	PLT	polite
CNVRPR	conversational process	POSS	possessive
COP	copular	PROG	progressive
DEF	definiteness	PRX	proximal
DEST	distal	PUR	purpose
DM	discourse marker	PVR	perfective
F	feminine	Q	question marker
FOC	focus	REF	reflexive
H	honorific	REL	relativized
IMP	imperative	RL	relative (affection)
INST	instrument	RPR	repair
IPV	imperfective	S	singular
JUSS	jussive	SJ	subject
lit.	literal meaning	VN	verbal noun
LOC	locative	VOC	vocative
M	masculine	NAME	a gloss for proper nouns
/	overlap begins	{ }	repair mechanism
..	cut-off	-	morph and gloss boundary
=	clitic		

:	boundary for grammatical functions by one morph	[]	trouble source
...	long pause	##	repair solution
		\	another function

Appendix II: Data Statement

During a three-month fieldwork during which the researcher recorded the speech data, the mini-corpus temporarily named as Rayya Tigrinya mini-speech corpus has been established. Originally, the mini-corpus totalled 24 hours of recorded audio/video data. For research ethics purposes, based on the basic schema recommended by Bender and Friedman (2018), the data statement is detailed as follows.

CURATION RATIONALE: With the help of three research assistants (two with a BA degree in English Language and Literature and one with a BA degree in Tigrinya) and the consent of the participants, the researcher selected six hours of oral data. Then the selected six hours of oral data was segmented and transcribed by the three individuals mentioned above and by the researcher. Later on, the researcher edited and made some corrections on the transcription and made sample tagging of repairs. The article is entirely based on audio and video-recorded oral data. The data is made up of casual conversations, informal interviews, and stories. Spontaneous conversations, informal interviews that were recorded on a variety of topics including how to do things, biographies, tales, explanations of some cultural performances such as shadey, shiwulalo, gebiche, and gebeta, farming, family relationships, and how to culturally mediate conflicts were selected; these accounts lasted approximately one hour and forty-two minutes. Ten spontaneous conversations that were recorded at a market, a conflict resolution site, a bus station, a workplace, and a hotel are selected: the longest interactional conversation was twenty minutes long, while the shortest was four minutes and twenty-two seconds long.

Types of oral data	Number of recordings	Length in minutes	Total number of words	Percent	Number of repairing	Repairing in Percentage	Remark
Spontaneous conversation	10	61	12,600	17.074	156	39	2 up to 4 participants
Conflict resolution	2	62	14,495	16.931	132	33	6 & 9 participants
Informal interview	20	59	12,497	16.935	51	12.75	2 participants each
How to do things	8	58	11,650	15.786	30	7.5	2 participants each
Biography	12	60	12,504	16.943	17	4.25	1 participant each
Tales	18	62	12,050	16.328	14	3.5	2 participants each
Total		362	75,796	100	400	100%	

Table 7. Total number of recordings for each genre and number of self-repairs.

According to the data, 400 repairs have been identified; repairing is very common in spontaneous conversations, followed by conflict resolution, which account for 156 and 132 instances, respectively. Only 14 repairs were identified in the narrating tales from the recorded genre of data sources. The above table shows the distributions of the repairs in detail.

LANGUAGE VARIETY: The linguistic data that this article relies on is collected from the residents of Neksege, a locality located to the west of Maichew, Southern Tigray Administrative Zone, and is used in the analysis. These people speak a Tigrinya variety that is not being represented enough in education, media, and offices (Asgede, 2007 and 2019; Mehari, 2011).

SPEAKERS' DEMOGRAPHIC FEATURES: Data was recorded from 38 participants. Table 8, summarizes the demographic features of the participants whose speech was recorded for the purpose of this research. All the speakers gave their consent before each recording started and ended.

	Number	Remark		Number	Remark
1. Age			4. Religion		
20-30	2		Orthodox	36	
31-40	5		Protestant	1	Originally from Qobo
41-50	6		Muslim	1	Originally from Maichew
50-60	10				
>60	15				
2. Gender			5. Ethnicity		
Female	14		Tigrean	35	
Male	24		Agew	2	Originally from Ts'eta
			Amhara	1	Originally from Qobo
3. Educational background			6. Language background		
Primary (0-4)	15		Native in Tigrinya	36	8 of them speak Agew; other 5 speak English
Primary secondary (5-8)	9				
Highschool (9-12)	8		Native in Amharic	1	Speaks Tigrinya & English
College	6		Native in Agew	1	Speaks Tigrinya
Total Number of Participants				38	

Table 8. Demographic features of participants.

ANNOTATORS' DEMOGRAPHIC: As highlighted above, including the author of the current research article, the annotators are four in number. All the annotators are members of the speech community that the data is collected from. Four of them are native Tigrinya speakers. While the researcher speaks Amharic like a native, the others speak it with phonological, lexical and syntactic difficulties. They range in age from 35-48 and include one woman and three men.

SPEECH SITUATIONS and SPEECH CHARACTERISTICS: As introduced in the previous pages, the data is recorded in different social settings. Except the data from conflict resolution, the remaining data was collected in informal settings and contains comics and several nonlinguistic features of daily interaction. The intended audience was therefore the participants who overtly showed up themselves in every dialogue and interview. The contents of the data are related to the living system of the community.

RECORDING EQUIPMENT: The recording device used was an IC recorder, and some videos of conflict resolutions were video recorded using an Apple iPad.

Appendix III: Inter-Annotator Agreement

Based on an example text that contains 15 repairs, the researcher trained the annotators and raters for half a day. The content of the training was how to identify the repair typologies and how to annotate (transcribe) them. Based on Healey et al. (2005), a short guideline that encompasses the following points is given to the annotators.

A repair is identified as a self-repair, if the response to the following questions is ‘yes’ except for the fourth point:

- Does the speaker of the current turn modify the original text one way or another by him/herself?
- Is the speaker repairing his/her own original constituent/utterance?
- Are you sure the current listener does not make any contribution to the request for a repair?
- Is not the repair/revision completed by another person?
- Does the speaker of the current turn edit, amend, or reprise the original text?

To identify the trouble sources of self-repair, the raters should try to:

- Identify why speakers repair the portion of their old speech.

To identify the types of the repair mechanisms, consider the following points:

- Note whether the repair marker (repair mechanism) is cut-off, particle, filled pause, noun, verb, pause, verb phrase, noun phrase, clause, facial expression, etc.
- Note whether the purpose (result) of each identified self-repair is to expand, restart, insert, replace, reordering, etc. of the original constituent.

To identify the result of repairs, the raters should try to:

- Understand how the repair result is different from the repaired one,
- Explain the contribution of the repair result on the discourse development,
- Assign what the repair mechanisms entail on the repair result.

Accordingly, the number of self-repairs identified from each genre by the annotators are shown in Table 9. This table only demonstrates the mean of the four annotators in comparison with the number of self-repair markers identified and used in this research.

Genres	Number of Self-repair Markers Identified by Annotators					
	A1	A2	A3	A4	Mean	Repair Markers Considered
Spontaneous conversation	160	145	144	156	151	156
Conflict resolution	137	127	121	132	129	132
Interview	53	45	47	51	49	51
How to do things	34	30	27	30	30	30
Biography	18	16	15	17	17	17
Tales	18	12	10	14	14	14
Total	420	375	364	400	390	400

Table 9. Aannotators’ agreement on identifying repair markers.

Considering the total number of repairs identified by the researcher and the remaining three annotators, the mean is 390. Therefore, the 400 repairs are accepted as valued and reliable. This is substantiated with the inter-rater agreement among the four raters (including the author) for the categories of self-repairs: trouble sources, repair mechanisms, and results of self-repairs under sections 4.1., 4.2., and 4.3., respectively. The Fleiss’ kappa model is employed to manually compute the inter-rater agreement for there are four raters (more than two raters) and the data is nominal (Fleiss 1971; 2003).

$$K = \frac{Po - Pe}{1 - Pe} \quad \text{where } K \text{ is Fleiss' kappa; } Po \text{ is observed agreement, } Pe \text{ is expected agreement among the raters}$$

The inter-rater agreement for the sources of troubles in self-repair, repair mechanisms, and results of self-repairs is calculated in the analysis section using the Fleiss’ kappa interpretation intervals provided below in Table 10.

Fleiss' kappa	Interpretation
<0.00	Poor agreement
0.00 to 0.20	Slight agreement
0.21 to 0.40	Fair agreement
0.41 to 0.60	Moderate agreement
0.61 to 0.80	Substantial agreement
0.81 to 1.00	Almost perfect

Table 10. Interpretation of Fleiss' kappa values.