Interjections in interactional discourse: The case of Avatime

Punselie, Stella

Interjections in interactional discourse:

The case of Avatime

Master's thesis

Linguistics (MA), Leiden University

Stella Punselie – s1619489

8 July 2022

Supervisor: Prof. dr. F.K. Ameka

Second reader: Dr. V.A.S. Nyst

Abstract

Interjections, such as *wow, mhm* or *oh boy*, can be defined as conventionalized linguistic items that typically constitute a non-elliptical utterance of their own and express a speaker's attitude towards a situation. Many studies have debated about topics like the extent of the interjection class, or the semantics of different types of interjections. However, the context of conversation is needed to truly grasp the way interjections are used in spoken language. This study investigates the interjections of Avatime, a Kwa language of Ghana, focusing specifically on how they are used in interactional discourse. I construct an inventory of the interjections used in a collection of Avatime conversations. I then analyze the functions, positions and multimodal properties of these interjections. The great majority of attested interjections are phatic in function (e.g., backchanneling or expressing agreement), while there is relatively little room for interjections expressing emotions. Most interjections occur on their own (as is part of their definition) or turn-initially. Avatime speakers also regularly communicate in sequences that consist of only interjections. Furthermore, conversation is not unimodal, and neither are interjections. A quarter of the Avatime interjections occur with a gesture (with hand, head or other body parts), although facial expressions are rarely involved in producing gestures. Furthermore, there seems to be great areal convergence of interjections in Avatime and surrounding languages, which are all influenced by the regional lingua franca Ewe. To better understand these areal patterns, and to place interjections in a wider typological perspective, more empirical studies like the present one are needed. Only with comparable data from diverse languages can we say understand the use of interjections in conversations around the world, which ultimately is fundamental to understanding human interaction.

Table of contents

Acknowledgements

This thesis, 'Interjections in interactional discourse: The case of Avatime', was written as part of the Linguistics Master's program at Leiden University. The final product could not have been the same without the support of a number of people.

Firstly, I would like to thank my supervisor, Felix Ameka, and my second reader, Victoria Nyst, for taking the time to read and evaluate this thesis.

Many thanks to Saskia van Putten for introducing me to Avatime, for giving me the opportunity to do fieldwork with her in 2019, and for generously sharing her own Avatime data with me for the purpose of this thesis.

Finally, I am grateful to the Avatime speakers who have been participating in linguistic research over the past years, whose recordings I can now use, and who have helped me in getting to know the Avatime language and culture during my own fieldwork. *Mlɔ mlɛwa lixwɛ!*

Stella Punselie
Leiden, 8 July 2022

Abbreviations

1	first person
2	second person
ADD	additive
$C_{number+s/p}$	noun class
COMP	complementizer
CTR	contrastive
DEF	definite
DIST	distal
FOC	focus
FP	final particle
HAB	habitual
ID	ideophone
INDF	indefinite
INT	intentive
INTJ	interjection
IT	itive
LOC	locative
NEG	negative
OBJ	object
P	plural
POS	possessive
POT	potential
PROG	progressive
PROX	proximal
Q	question marker
REC	recurrent
REL	relative
S	singular
SBJ	subject

1 Introduction

This thesis investigates the interactional use of interjections in Avatime, a Kwa language of Ghana. Based on spontaneous speech data, I present a range of interjections that can be found in spoken Avatime in Section 2. In Section 3, I analyze aspects of their use in the discourse by means of a coding analysis, focusing on function, position in the turn, sequential positions, and use of gestures.

The structure of this introduction is as follows. §1.1 introduces the Avatime language and describes some elements of its grammar that will aid the reader in interpreting the examples given throughout this thesis. §1.2 focuses on the other key element of this thesis: interjections. It gives an overview of previous work on interjections from various perspectives. Finally, § 1.3 introduces the aims and scope of the present study.

1.1 The Avatime language

1.1.1 Classification and context

Avatime is a language from the Volta Region of eastern Ghana. It is a Kwa language of the Niger-Congo phylum, and part of the Ka-subgroup in the Ghana-Togo Mountain (GTM) language group.[1] The current number of speakers is between 15,000 and 27,000,[2] and it is classified in Ethnologue as a developing language (Eberhard et al. 2022). Most Avatime speakers live in the eight villages of Amedzofe, Biakpa, Dzogbefeme, Fume, Gbadzeme, Old Dzokpe, New Dzokpe and Vane (Putten 2014: 21), which are shown on the map in Figure 1. Ethnonyms of Avatime are Sìyàsɛ or Sìdemè(se), but the name 'Avatime' (which comes from Ewe) is not considered derogatory; it is commonly used inside and outside of the Avatime region, mostly when communicating in English and Ewe (Defina 2016a: 19).

All speakers of Avatime also speak Ewe (Gbe, Niger-Congo; Ghana, Togo), which is the regional lingua franca. English, the national language of Ghana, is also spoken by those who have been to school (i.e., most people under the age of 40). Avatime is most closely related to neighboring languages Tafi and Nyangbo (Putten 2014:26). There is some dialectal variation within the Avatime area. This variation has not been fully investigated, but includes at least some phonological, morphological and lexical differences. The present study is mostly based on Avatime as it is spoken in Vane.

[1] The exact relation between Kwa and GTM is still under debate, partly due to the limited knowledge of what exactly defines the Kwa family (see Defina 2016a: 23 for a discussion). Recent work on redefining Kwa and GTM languages can be found in a special issue on GTM languages (Ameka 2017; Dakubu 2017).

[2] Putten (2014: 21) estimates the number of speakers to be around 15,000, based on the number of inhabitants of Avatime villages up to 2010 and the hypothesized population growth since then. The estimation by Ethnologue (Eberhard et al. 2022) is 27,200, but it is unclear on which data this estimation is based.

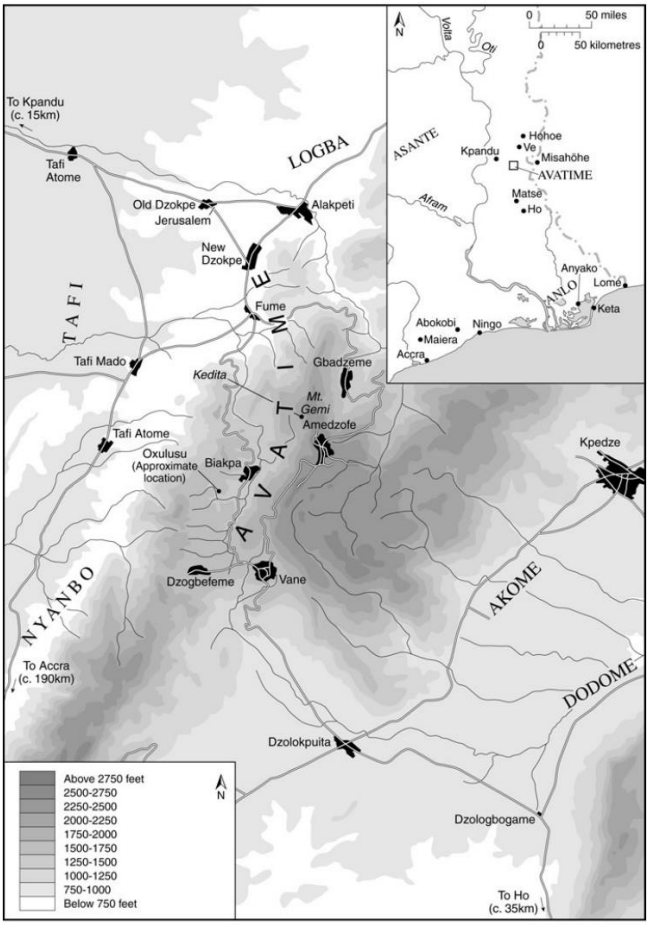

Figure 1. Map of the Avatime region. The inset shows the Avatime area in relation to the wider area of southeastern Ghana. Reprinted from Bn (2008: 25).

Previous research on Avatime can be dated back to the nineteenth century, with Christaller (1888) comparing five Ghanaian languages. See Putten (2014: 26-7) for an overview of past research on Avatime. After 2014, more has been published on topics like Avatime aspect and modality (Defina 2016a), serial verb constructions (Defina 2016b), focus marking (Putten 2016), expression of motion (Putten 2017), perception verbs (Putten 2020), complementation (Major & Torrence 2021), and the semantics of noun classes (Theunissen 2021).[3]

1.1.2 Phonology

Avatime has a phonemic inventory of 31 consonants, two of which only occur in loans from Ewe. Table 1 shows the consonant chart as presented in Putten (2014) and used in this thesis. Consonants that only occur in loanwords are placed in parentheses. In cases where the orthography differs from the International Phonetic Alphabet (IPA) convention, the IPA symbols are included in square brackets. The alveolar sonorants [l] and [r] are in complementary distribution and thus occur in

[3] This overview is not meant to be exhaustive, but rather to give an impression of the topics that have been covered for the Avatime language over time.

different positions within the word, with the exception of some loanwords and ideophones (Putten 2014: 28). Finally, 'vl' refers to voiceless consonants and 'vd' to voiced consonants.

Table 1. Consonant phonemes in Avatime (Putten 2014: 28).

	bilabial	labiodental	alveolar	palatal	velar	labial-velar
stop vl	p		t		k	kp
stop vd	b		d, (ɖ)		g	gb
fricative vl	(ʃ [ɸ])	f	s		x	xw [x^w]
fricative vd	ʋ [β]	v	z		h [ɣ]	hw [$ɣ^w$]
affricate vl			ts	tsy [ʧ]		
affricate vd			dz	dzy [ʤ]		
nasal	m		n	ny [ɲ]	ŋ	ŋw [$ŋ^w$]
oral sonorant	w		l/r	y [j]		

Table 2. Vowel phonemes in Avatime (Putten 2014: 29).

	front		central	back	
	+ATR	-ATR	(-ATR)	+ATR	-ATR
high	i	(ị)		u	(ụ)
mid	e	ɛ		o	ɔ
low			a		

Table 2 presents the Avatime vowel inventory, which is divided into nine vowels. A distinction is made between vowels with advanced tongue root (+ATR) and retracted tongue root (-ATR), leading to distinctions such as <i> versus <ị>. I will not explicitly make this +/-ATR distinction for the high vowels in the orthography in this paper, which is why I place them in parentheses in Table 2. Instead, the vowels in the orthography I am using are in line with the Sideme Transitional Primer by the Ghana Institute of Linguistics, Literacy and Bible Translation (2019), which makes no distinction for <i> versus <ị> and <u> versus <ụ>. One reason for this is that there are very few minimal pairs with +/- ATR high vowels. Additionally, the linguistic context often already indicates the ATR value of the vowel. This leaves only the following seven vowels in my orthography: <a e ɛ i o ɔ u>.

Avatime is a tonal language with three contrastive tones: low tone (marked as à), high tone (unmarked) and extra high tone (marked as á), of which low and high are the most frequent ones (Putten 2014: 29). Tone can mark lexical as well as grammatical contrast, as in (1) and (2), respectively.

(1) *siyà* 'hair'
sìyà 'language' (Putten 2015b: 6)
(2) *bipè* 'it is good'
bípè 'it is not good' (Putten 2014: 29)

1.1.3 The noun phrase

Like most Niger-Congo languages, Avatime has a nominal classification system. Unlike many of these languages, however, Avatime has very regular pairings of singular and plural nouns. Therefore, Avatime is said to have seven genders or noun classes, six of which have a singular-plural pairing. The seventh noun class is only used for mass nouns. This categorization is largely based on Schuh (1995b) and Heine (1968), and adapted in later works, e.g., Putten (2014) and Defina (2016ab).

An overview of the different noun classes is presented in Table 3. Noun classes are expressed by attaching a prefix to the (usually monosyllabic) noun stem (Putten 2014: 30). The class prefixes are subject to vowel harmony. If the first vowel of the noun stem is +ATR, the class prefix will also be +ATR. Conversely, if the first stem vowel is a -ATR vowel, the class prefix will be a -ATR vowel, too.

Table 3. Noun classes in Avatime (adapted from Putten 2015a: 1).

Noun class	Prefix (sg.)	Prefix (pl.)	Noun (sg.)	Noun (pl.)	Translation
1	*ɔ-/o-/Ø*	*ba-/be-/Ø*	*ɔ́dzɛ*	*bádzɛ*	'woman'
2	*ɔ̀-/ò-*	*ì-*	*òse*	*ìse*	'tree'
3	*li-*	*a-/e-*	*liwè*	*ewè*	'day'
4	*ki-*	*bi-*	*kimbì*	*bimbì*	'eye'
5	*ku-*	*bà-/bè-*	*kụka*	*bàka*	'fence'
6	*ka-/ke-*	*kù*	*kaklikpɔ*	*kùklikpɔ*	'foot'
7	*si-*		*siyà*		'hair'

As can be seen in Table 3, some class prefixes only differ in tone, such as *ku-* and *kù-* in class 5 (singular) and class 6 (plural), respectively. In classes 1, 2 (sg.), 3 (pl.), 5 (pl.) and 6 (sg.), several prefix options are shown, because of the vowel harmony constraints explained above. The zero prefix *Ø* in class 1 usually only applies to loanwords.

Most nominal modifiers show class agreement with the head noun, including definite and indefinite articles, demonstratives, and numerals. Adjectives are an exception, as they do not agree with the head noun (Putten 2014: 37).

1.1.4 The verb phrase

The constituent order in Avatime is strictly SVO (subject-verb-object); deviations from this order are only possible in constructions of focus or left dislocation (van Putten 2014: 130). The subject is obligatorily marked with a prefix on the verb. The verb also must be marked with one of six contrasting aspect, mood and modality categories, i.e., aorist, progressive, habitual, potential, subjunctive or imperative. Some categories are fused with the subject prefix, while others have their

own affix or are not marked at all (in the case of the aorist). Other optional verbal affixes include the intentive, recurrent, prohibitive, and directional prefixes, and the comitative suffix. There is no grammatical tense in Avatime (Defina 2016a: 48). The example in (3) is a sentence with many of the possible affixes.

(3) *mɔ́-tá-zɛ̌-zɛ-panị̀=wɔ*
1S.SBJ:NEG-INT-REC-IT-talk=2S
'I will not be going to talk with you.' (Putten 2014: 48)

Objects are not marked with verbal affixes, although bound (pronominal) object forms are often attached to the verb as clitics. In certain contexts, the object may even be omitted, e.g., when it is already clear from the previous discourse. This typically happens in serial verb constructions (Putten 2014: 60). Negation can be expressed with an extra-high tone on the subject prefix, as in (2), or with the particle *aní*, as in (3).

(4)	*aní*	*yɛ*	*store*	*mɛlɔ*	*bɛ-kpɛ*	*dɛmɛ*
	NEG	C_{1S}.POS	store	inside.there	C_{1P}-put	thing

'Those bottles were not put in your store.' (conv-funeral_100528_9)

1.2 Interjections

1.2.1 Defining the interjection

The term interjection originates from Latin (from *inter* 'between' and *iacere* 'to throw'), where the class of interjections was 'created' so that it could mirror Ancient Greek in having eight word classes (Ameka 1992a: 102). It was, and still is, often used as an umbrella term for all those elements that occur outside of a clear syntactic structure and that can be 'thrown' into the sentence.

While definitions of interjections vary considerably, many scholars agree that interjections are *conventionalized linguistic items that typically constitute a non-elliptical utterance of their own and express a speaker's attitude towards a situation* (e.g., Jespersen 1922; Ameka 1992a; Poggi 2009). Interjections are typically holophrastic, but they can also combine (at least prosodically) with other co-utterances. However, the typicality of occurring on their own sets interjections apart from, for example, particles that always attach to larger structures, or fragments that only occur on their own when they are subject to ellipsis.

Additionally, it has been noted that interjections are often phonologically anomalous, i.e., formed with phonemes not regularly used in the language in question. However, this property is not exclusive to, nor definitional of, interjections: other word classes such as ideophones or even demonstratives also frequently show phonological anomalies (Ameka 1992a: 106). Other suggested typical properties of interjections include that they are often exclamatory, produced semi-

automatically, refer to emotive states, and do not require an addressee. However, these properties are by no means fully applicable to a class as heterogenous as that of interjections. Rather, researchers have proposed an 'interjectional prototype' which has all of these properties. As such, interjections will fall somewhere along the continuum of being prototypical, i.e., the most interjectional on the one end (like *Yuck!*[4]), and the least interjectional on the other end (like *uh-huh*) (e.g., Nübling 2004; Stange 2016). However, as will be clear from the next section (§1.2.2), I will not treat forms like *uh-huh* as less of an interjection; they simply are of a different type.

Because interjections are such a heterogeneous class, there is quite some debate as to what counts as an interjection and what does not. Interjections are often referred to as discourse markers, but this does not mean all discourse markers are also interjections. This is a confusion of form and function: an interjection is a word form that can have various functions, marking elements of discourse being one of them. Another source of confusion involves conversational routines, the formulae used for acts including greeting, thanking, or taking leave. These are sometimes included as interjections, given that they are also stand-alone utterances (e.g., *Good morning!* or *Thanks!*). However, I agree with Ameka (1992a) in that they do not truly function as interjections. While interjections have some degree of automaticity to them, it is a very conscious choice to greet somebody on the street. Routines are socially expected responses to a situation rather than spontaneous expressions of one's mental attitude to the situation. That does not mean interjections cannot occur within certain conversational routines; see Ameka's (1992b) analysis of the greeting interjection *atúù!* in Ewe.

Also frequently excluded from the class of interjections are hesitation markers such as *uh* or *um*. For example, O'Connell and Kowal (2005) argue that they are mere fillers and not interjections, among other reasons because they do not initiate a delay (in contrast to Clark & Fox Tree's (2002) claim) and do not have the ability to constitute a turn by themselves. However, as Norrick (2009) shows, hesitation markers like *um* in English can in fact occur as free-standing utterances. In addition, they have a semi-automatic function (most of the time, hesitation markers are not consciously produced, except when they are actively used to make a point) and, like other interjections, express one's state of mind (signaling that the speaker is still planning their utterance and does not wish to be interrupted). These reasons lead me to include them as interjections in the current study.

1.2.2 Classifications

To bring some order to a seemingly chaotic class of words, interjections are often categorized into several types. One way to do this is based on form, distinguishing primary from secondary interjections. Another way to classify interjections is by function. Drawing upon traditionally

[4] In the examples of interjections given in the text, I indicate from which language they come; if nothing is indicated, the examples are from English. Additionally, if I adopt an example from previous research, I refer to the source. If no reference is given, the examples come from my personal knowledge of the language in question.

recognized functions of language (e.g., Bühler 1934; Jakobson 1960), Ameka (1992a) proposes the following functional types of interjections: expressive (subdivided into emotive and cognitive), conative and phatic. A schematic summary of these classifications is presented in Figure 2.

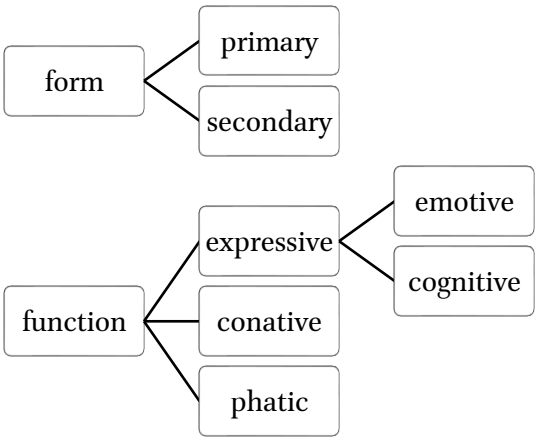

Figure 2. Types of interjections as categorized by form and function (based on Ameka 1992a).

Primary interjections are forms that are only used in this interjectional way, for example o*h!*. These interjections usually have short forms with no derivational or inflectional morphology. A further distinction is made by Goddard (2014) into interjections that are more "noise-like" (*ugh!, psst!*) and ones that are more "word-like" (*wow!, gee!*). In contrast to the primary type, secondary interjections also occur as other word types in the lexicon of a given language, e.g., *well, help!*, or expletives such as *damn!* or *Christ!*. They also include conventionalized multimorphemic constructions that are uttered as one word, like *goddammit!*, or French *oh là là!*. Multi-word expression with interjectional function, such as *bloody hell!, oh my God!* are also termed interjectional phrases (Ameka 1992a; Hill 1992).

Within the different functions of interjections, expressive interjections can be defined as a reflection of the speaker's state of mind, regarding their feelings and sensations at the time in the case of emotive interjections (1a), or their thoughts and state of knowledge for cognitive interjections (1b).

(5) a. *wow* 'I feel surprised' (English)
puha 'I feel relieved/surprised/dismayed (Danish; Hougaard 2019)
ieuw 'I feel disgusted' (Dutch)
b. *aha* 'I just realized something' (Dutch)
ehẽ 'I now remember' (Ewe; Ameka 1992a)
woo 'I understand what you are saying' (Tjwao (Khoe-Kwadi, Zimbabwe); Andrason et al. 2020)

Conative interjections are those that are directed at a listener, in order to get someone's attention (*hey!*) or demand an action or response from someone (*ssh!* 'I want you to be silent'). Included as

conative are also animal-oriented interjections. In Zargulla (Omotic, Ethiopia), for example, cats are summoned with *wurruu*, and told to go away with *kíp* (Amha 2013: 224).

Phatic interjections are used for establishing and maintaining communicative contact. They express "the speaker's mental attitude towards the ongoing discourse" (Ameka 1992a: 745). This includes continuers like *mhm* or organizers of discourse such as *yeah* or *okay*.

Lastly, it should be noted that these functional categories are not mutually exclusive. Some interjections may be used in various ways with different functions, or an interjection has both. For example, an other-initiated repair marker like *huh?* can be characterized as conative (being directed at a person) as well as phatic (in maintaining communicative contact) (Ameka 1992a; Dingemanse 2021).

1.2.3 Perspectives in interjection research

Researchers have tried to understand the workings of this word class from numerous theoretical perspectives, often independent of language. One way is to investigate how best to define interjections, resulting in various definitions and classifications as described in the previous sections. Some researchers focus on what constitutes a 'prototypical' interjection (e.g. Nübling 2004); others analyze the meanings of interjections, for example using Natural Semantic Metalanguage (e.g., Wierzbicka 1991; Ameka 1992a; Ameka 1992b; Wierzbicka 1992; Wilkins 1992; Goddard 2014). Other approaches investigate to what extent the word class of interjections is open (e.g., Buridant 2006; Norrick 2009) or closed (e.g., Quirk et al. 1985; Greenbaum 2000), how interjections relate to emotions (Goddard 2014), and whether they are indexical elements (e.g., Wilkins 1992). Regarding the latter, it has been suggested that interjections indeed have an indexical function, in the sense that their meaning is not isolated, but has to be interpreted within the social situation in which it occurs, e.g., by identifying the speaker and hearer and the relationship between them (Aijmer 2004: 104).

This context-bound nature of interjections means that, in order to fully grasp their meaning, a pragmatic perspective is very useful. An elaborate study on German interjections by Ehlich (1986) set a new example for interjection research, with its strong empirical focus and influences from pragmatics and philosophy of language (Dingemanse 2021: 3). Later pragmatics-oriented studies include Drescher's (1997) account of French interjections and their use in discourse, various works on English interjections functioning as pragmatic markers in English (e.g., Norrick 2009, 2011), and a case study by Kryk (1992) comparing the pragmatics of the Polish interjection *no* with its English equivalents.

Other language-specific studies include Hougaard's (2019) work on Danish interjections in online written communication, and Nordgren's (2015) in-depth study of interjections in written plays in Ancient Greek. Nordgren takes into account syntactic, semantic as well as pragmatic perspectives. While this is very informative from a historical perspective, the most effective way to

understand interjections as they are used in everyday language would be to study them in their natural habitat: spoken language.

1.2.3.1 Interjections in conversation

The emergence of spoken corpus research changed the idea that interjections are peripheral to language, an idea that stems from research traditions with focus on written language. In written language, interjections are usually rare, with the exception of written imitations of spoken language, such as online communication, comics or plays (Andrason & Matutu 2019: 2). In spoken and signed language, however, interjections are abundant and well-integrated into the intonation groups of spontaneous language production (Brazil 1995; Norrick 2011).

With its many corpora, the English language forms an excellent source for studying interjections in natural spoken language. Examples of corpus studies of English interjections are by Norrick (2008; 2009) with narrative and general corpora respectively, and O'Connell et al. (2005), who study the genre of interviews. The Dutch language has also been subject to various corpus studies of interjections, for example Hofstede (1999) and Schelfhout et al. (2005). Elaborate corpus studies of interjections in non-western languages are quite rare. Unuabonah and Daniel (2020) investigate interjections in Nigerian English, which show borrowings from other local languages like Hausa and Igbo. Another recent example is a corpus study of the syntax of interjections in Xhosa by Andrason & Matutu (2019).

Other corpus studies focus less directly on the class of interjections, but rather on specific conversational structures in which interjections also play a role, such as responses to (polar) questions (e.g., Tottie 1991; Enfield & Sidnell 2015; Stivers 2019). Studies have found, for example, that when using interjectional responses like *no*, *yes* or *yep,* one accepts the epistemic terms of the question asked, whereas using repetitional responses asserts more agency; a form-function mapping which may in fact be universal (e.g., Enfield & Sidnell 2015). Additionally, Stivers (2019) argues that English has subtypes of interjectional responses with various degrees of agency. Enfield and Sidnell also show how interjections behave in sequences of utterances, depending on whether they are in first position ('acting') or second position ('reacting').

Another conversational process involving interjections is other-initiated repair, which occurs for example when someone has not quite grasped what another person just said. This way of asking for clarification or repetition of what was previously said is often done with short interjectional forms. Results from a survey of 31 languages show that these forms show a cross-linguistic tendency: they are all realized as a short, low-front central vowel with questioning intonation, much like the English *huh?* (Dingemanse et al. 2013). This form can be explained by the constant time pressures in turn-taking and formulation: trouble in understanding should be indicated in an efficient way with minimal articulatory effort, while also pursuing a response by using questioning intonation (Dingemanse et al. 2013). This kind of strategy is not unique to spoken language: for example, Argentine Sign Language (Manrique 2016) and Norwegian Sign Language (Skedsmo 2020) apply the

same logic in initiating repair by using non-manual prosody (e.g., tilting the head or raising the eyebrows) to formulate a question of minimal phonological complexity (Dingemanse 2021: 15).

Phatic interjections like *mm* or *mhm* often function as continuers or backchannel responses, signaling that one is still listening to the speaker and expect the speaker to continue. Backchanneling behavior appears to be universal feature of human communication, and there is likely cross-linguistic convergence in the use of nasal, easily articulated forms, although this has not been systematically investigated yet (Dingemanse 2021: 15). How exactly this backchanneling is done still remains quite language-specific (e.g., Beach & Lindstrom 1992; Heinz 2003). For example, in a case study comparing Korean and English, Korean continuers were used relatively more frequently, and showed much more overlap with the ongoing turn than in English (Dingemanse & Liesenfeld Under review). To uncover more of these cross-linguistic tendencies in an efficient way, Dingemanse and Liesenfeld argue for language-agnostic methods using sequential and frequential information from spoken corpora.

1.2.3.2 Interjections and gestures

Conversation is not unimodal: spoken as well as signed language naturally come with co-speech or co-sign gestures (e.g., Kendon 2008; Goldin-Meadow & Brentari 2017).[5] Co-speech gestures are typically split into 'referential' gestures, such as iconic, deictic, or metaphoric ones, and 'rhythmic' gestures or 'beats' (e.g., McNeill 1985), although this idea has recently been slightly nuanced. Such a strict division between referential and rhythmic is not completely realistic, since gestures carry both prosodic and pragmatic components. This is why Shattuck-Hufnagel & Prieto (2019), among others, propose to analyze gestures on separate rhythmic and referential dimensions in order to better capture combinations of rhythm and meaning.

With the idea that gestures play an important role in thinking (e.g., McNeill 1992; 2008), they can also be used to study conceptual representations of language. In Avatime, for example, Defina (2016b) studies how gestures align with serial verb constructions (SVCs) in Avatime: the way gestures and SVCs align in fact supports the idea that these SVCs refer to single events.

The face is not only used for the expression of emotions (Ekman 1973), but facial expressions can also convey more complex meanings of the same type as verbal utterances, and can also be analyzed semantically (Wierzbicka 2000). Facial expressions are used for gesturing in spoken and signed languages (Elliott & Jacobs 2013). For example, in the Yoruba language of Nigeria, deictic gestures can be made with not only the hands and head, but also the eyes, nose and lips (Orie 2009).

Interjections are said to have a 'gestural origin' (Aijmer 2004: 100), and the boundary between interjections as vocal or physical gestures is sometimes hard to draw. Interjections seem to belong to the realms of both verbal and non-verbal communication (Ameka 1992a; Eastman 1992; Wilkins 1992). Like other parts of speech, interjections can co-occur with gestures made with the hands,

[5] For sign languages, the boundary between sign and gesture can be blurry: see (Kendon 2008; Goldin-Meadow & Brentari 2017) for reflections on the role of gestures in sign language.

head, face or other parts of the body, but gestures can also replace spoken interjections. For example, nodding while someone is talking yields the same interpretation as saying *mhm*. A study of Swahili interjections and gestures confirms this co-occurrence, as well as the fact that it is not uncommon for gestures to be used alone with interjectional force (Eastman 1992: 282).

1.2.3.3 Interjections and linguistic diversity

Past research on interjections has mostly been situated in language-specific descriptive and theoretical linguistics, while relatively little attention has been paid to the perspective of linguistic typology (Lahaussois & Treis 2019). One possible reason for this is the lack of a uniform approach in interjection research, making direct comparison difficult; existing case studies of languages employ different definitions of interjections and theoretical approaches as best suits the study in question.

Certain conversational processes that make use of interjections – including continuers, repair initiators and news receipt markers – lend themselves well for cross-linguistic study, as they likely occur in any natural language and can be found in short stretches of conversational material (Dingemanse 2021: 8). A systematic investigation of other-initiated repair markers in 31 diverse languages found that all languages in question used repair initiators similar to *huh?*, suggesting a strong cross-linguistic tendency (Dingemanse et al. 2013). Increasing efforts of analyzing conversational corpora on a large scale, with language-independent methods, will facilitate more cross-linguistic research in this domain (Dingemanse & Liesenfeld Under review).

Another reason for the lack of typological research on interjections is the limited number of languages that have in-depth accounts of interjections; the ones that do exist are mostly of large (and often western) languages, with the exception of some smaller (mostly African and Austronesian) languages which are mentioned below. While these larger languages are practical to research, as they have ample written and spoken sources and native speakers as linguistic researchers, they obviously represent only a minor part of the diversity of the world's languages. What about the thousands of languages in other parts of the world? As Ameka and Terkourafi (2019) also stress, linguistics – and pragmatic studies specifically – need a more diverse and inclusive perspective on how language is used.

Some grammars of non-western languages briefly mention interjections, but they are often thrown in the same bin with particles and other hard-to-define phenomena; others do not mention them at all (Lahaussois 2016). In the case of endangered languages, this may well be a question of priority; before a language goes extinct, researchers documenting it may give priority to better-understood and more straightforward parts of language, like the lexicon, phoneme inventories or morphosyntax.

Fortunately, studies focusing on interjections in non-western languages are increasing. There are some studies of non-western languages with interjections as their main focus. Evans (1992) describes the use of interjections in Mayali, a dialect of the Bininj Gun-Wok language group of Northern Australia; Kockelman (2003) presents a pragmatic account of interjections in Q'eqchi' Maya (Mayan, Guatemala).

African languages with elaborate case studies of interjections include Xhosa (Andrason & Matutu 2019; Andrason & Dlali 2020; Andrason 2021), Swahili (Eastman 1992) and Tjwao (Andrason et al. 2020). While little is known about interjections in Avatime, the language under study in this thesis, there are a number of studies of other Kwa languages in Ghana that focus on interjections. Examples include an analysis of response tokens in Gua (Painter 1975), analyses of various types of interjections in Ewe (Ameka 1991; Ameka 1992b), and of repair interjections in Siwu (Dingemanse 2015). In addition, Ollennu (2017) investigates the meaning and positions of interjections in Ga. Grammars that pay some attention to interjections (without it being the focus of the study) include the grammars of Logba (Dorvlo 2008) and Tafi (Bobuafor 2013), fellow GTM languages that are closely related to Avatime. However, neither Avatime nor any language directly related to it – as far as I am aware – has been subject to a quantitative analysis of how interjections function in the discourse.

1.3 Present study

There is a need for a more sequential perspective in interjection research, i.e., studying them in their natural habitat of conversation, as well as more diversity in the languages that are researched in interactional linguistics (Dingemanse 2021). Therefore, this thesis investigates the use of Avatime interjections in interactional discourse.

The study uses a selection of Avatime conversations to explore this topic, guided by a number of research questions that reflect key aspects of language in conversation, such as discourse functions, positions in turns, and multimodal communication. As I work with a collection or corpus of previously recorded and transcribed speech, the findings are limited to what occurs in this corpus. I thus cannot claim to speak for the whole language. Surely, more interjections exist in Avatime than identified here; any tentative generalizations first and foremost pertain to the current corpus.

The research questions are defined in §1.3.1; §1.3.2 introduces the dataset and methodology used to operationalize these research questions.

1.3.1 Research questions

1. Which interjections do Avatime speakers use in interactional discourse, and what can be said about their meaning?

This first step in analyzing Avatime interjections is collecting an inventory of interjections that occur in the language. Based on translations and contextual information, I will describe what the different interjection forms seem to mean, or at least how they function in the contexts in which they occur.

2. What are the main functions of Avatime interjections in interactional discourse?

In previous literature, interjections are typically classified as expressive (emotive/cognitive), conative or phatic in function. I look at how these functions are represented in the interjections that

occur in spontaneous Avatime speech. Given the discourse type, I expect that phatic interjections will play a relatively large role in the corpus compared to the other functions. I also look at whether the same forms can have different functions, depending on their context.

3. In which positions do the interjections occur, and which patterns can be found there?

This question is twofold. Firstly, it regards the position of interjections within the speaker's turn. Is it free-standing, i.e., the only thing said in the whole turn, or does it co-occur with other speech? In case of the latter, is the interjection placed at the beginning of the turn, at the end or somewhere in the middle? Based on previous findings in other African languages, e.g., Ga (Ollennu 2017) or Xhosa (Andrason & Matutu 2019), I expect that free-standing and turn-initial interjections will be the most frequent in Avatime. Following Poggi (2009), I also expect that their position will, to some extent, be determined by their meaning and function.

When talking about a sequential perspective, one usually refers to general conversational sequences of acting and reacting (e.g., Schegloff 2007; Stivers, Enfield & Levinson 2010). However, preliminary observations of Avatime interjections suggest that there are sequences consisting of only interjections. Therefore, this research question also concerns the position of interjections within interjection sequences. Which types of interjections typically occur in sequences, and how long are these sequences? Are there regularities as to which positions different interjections occupy in a sequence?

4. Which kinds of gestures are produced together with Avatime interjections?

It is known that interjections and gestures are closely linked and often co-occur (Eastman 1992; Aijmer 2004). However, little is known about whether some gestures systematically occur with certain types of interjections. I look at gestures in a broad sense, including those made with the body (hands, head, etc.) and with the face (i.e., a marked facial expression that co-occurs with an interjection). I will refer to these types of gestures as 'bodily' and 'facial' gestures.

For example, are expressive interjections mostly accompanied by certain facial expressions, or are gestures preferred? In case of the latter, are these gestures made with the hands, head, or even other body parts? And which kinds of gestures are used with phatic interjections? I expect head nodding to be frequent, e.g., in backchanneling contexts, but to what extent, and which other gestures are used?

1.3.2 Methodology

The approach to the current study is empirical and inductive: I observe the available data and identify patterns. On the basis of this, I propose tentative generalizations. The exploratory nature of this study also prepares the ground for future research that dives deeper into the findings of the current study.

My approach to the first research question is mostly qualitative, by examining the corpus noting instances of interjections, and then examining the context in which they occur in order to get an idea of their meaning. A challenge arises when similar-sounding forms are used in different contexts: is it one polysemic form, or are they two homonymous interjections? As with words in other classes, this remains a difficult question with not always a clear outcome; I will substantiate my decisions as much as possible, but of course they remain a personal judgement.

Sometimes there is also the question whether a form has systematic tonal variations and if this results in different interjection forms. For these questions I use the software Praat (Boersma & Weenink 2021) to analyze the pitch contours of the interjections. I also use Praat for a preliminary analysis of interjectional clicks. Assigning meaning to interjections is no straightforward task, the semantics of interjections being a whole field of study in itself (e.g. Wierzbicka 1992). The idea is that interjections have a meaning by themselves, and are not only defined in terms of which emotions they express. Following this, the semantics of interjection are typically analyzed in the framework of natural semantic metalanguage framework (NSM) (e.g., Ameka 1991; Wierzbicka 1992). Characterizing the meaning of Avatime interjections with NSM is outside the scope of this thesis. The meanings I ascribe to the interjections in the data are mainly a description of the communicative goal they serve and/or the feelings they express, based on the contexts in which they are presently attested.

The second, third and fourth research questions are operationalized in a more quantitative way, by means of a coding analysis. I use a set of spontaneous conversations in which I identify the interjections that are used, code them for a number of variables (including the function and position of the interjection, and the use of gestures), and then analyze their frequency distributions.

The main source of data in this study consists of recorded conversations between speakers of Avatime, collected by Saskia van Putten between 2010 and 2013. Some of these recordings are freely accessible via The Language Archive of the Max Planck Institute for Psycholinguistics. For most spontaneous conversations, however, access is restricted; I thank Saskia for personally sharing these data with me. The files have previously been transcribed and translated in ELAN (Wittenburg et al. 2006) and contain audio as well as video data. Most recordings were made in Vane, one of the villages in the Avatime regions. One recording (a group discussion) was made in the neighboring village of Amedzofe. More details about the data are presented in Table 4.

Table 4. Name, description and length of the transcribed part of the files used in this study.

File	**Description**	**Length (minutes)**
language-use_130810	Group discussion between six people (4 male, 3 female) living in Amedzofe. about the Avatime language and other languages spoken in Ghana. The discussion is based on a list of questions provided by the researcher.	37

chiefs-meeting_100619_03	Meeting of the chiefs of the Avatime traditional area, led by paramount chief Osie Adza Tekpor VII. Various matters are discussed, including the upcoming rice festival.	19.5
conv-ablorme_100715_SO-AS	Conversation between two male friends who chat about a variety of topics.	11.8
conv-greenhouse_110408_SO-ViA_2	Conversation between two male speakers about a variety of topics.	12.1
conv-funeral_100528_7, conv-funeral_100528_8, conv-funeral_100528_9	Conversations between a group of female speakers during and after the preparation of food for a funeral.	6.3 5.8 8
conv-rice_110411_3-2, conv-rice_110411_3-3	Conversation during the preparations for the annual rice festival, mainly between four female speakers; occasionally other (also female) speakers pass by.	5.9 6.3
conv-street_100720_1	Conversation between three women who are sitting by the roadside. One of them is selling food, and another has two young children with her.	4.3
famprob_110316_MM-AlA	Conversation between two male speakers who are collaborating in the 'family problems picture task' (San Roque et al. 2012) in which they describe and organize a number of pictures in order to form a story.	31
tribunal_100513_4	A traditional tribunal with, among others, the paramount chief, the paramount queen mother (head of all the women of the Avatime region) and the chief of Vane. Several people are charged with minor offences, for which they have to pay a fine.	6.9

The files in Table 4 are all used for the collection of an inventory of interjections in Section 2, but not all of them are used for the coding analysis in Section 3. The chief's meeting (chiefs-meeting_100619_03) and tribunal (tribunal_100513_4) are excluded there, since these types of conversation usually go according to certain routines and rules, and the interaction they contain is thus less spontaneous. The coding study also does not include the group discussion in Amedzofe (language-use_130810), in order have a uniform sample of speech from Vane. Also excluded from the

coding study is conv-ablorme_100715_SO-AS, due to the video data not working properly (which is needed for the identification of gestures and facial expressions).

Another source is the Avatime word list (in progress) by Saskia van Putten, which she generously shared with me. This word list is accessed via Toolbox Version 1.6.4 (SIL International, 2019). I mostly use it for assistance in interpreting the linguistic context in which interjections occur.

The glosses in the examples in this paper are based on the transcriptions in ELAN, the Toolbox wordlist, my own knowledge of the language, and publications containing many glossed examples, such as Putten (2014) and Defina (2016a). If an element still remain unknown, I gloss it with a question mark.

2 Inventory of interjections

In this section, I describe the 42 different interjections that I attested in the Avatime data. It should be noted that this list is by no means exhaustive, as it is limited to what occurs in the particular collection used as a corpus for this research. The interjections are sorted by their forms and include examples of their use in context, starting with interjections that can be classified as primary (§2.1) and then moving on to secondary interjections (§2.2).

2.1 Primary interjections

2.1.1 a *and variations*

There are various interjection forms sounding like [a]. Firstly, there is the short form *a* [a], sometimes uttered as [a^{h}] with final aspiration. This interjection usually has a cognitive function when uttered at the start of a turn, signaling that the speaker is thinking or has thought about what they are saying, or what someone else has said just before. An example is given in (6).

(6) 1 A: *ami* *ó-dzi* *ní* *bi-dɛ* *ìgɛ* *wɔ-mɔ?*
Ami C_{1S}.NEG-return LOC C_{4P}-thing Accra 2S-see
'Ami has not returned from Accra, have you seen?'
2 B: *a* *ìgɛ* *a-trɛ?*
INTJ Accra C_{1S}-go
'Ah, is it Accra that she went to?' (conv-rice_110411_3-3)

Another form starting with a glottal stop, realized as [ʔa^{h}] and written as *ʔah*, has a more emotive function, signaling a state of shock in the speaker, as in (7).

(7) 1 A: *a-si* *ye-etse*
C_{1S}-say 2s-be.sick
'She said she is sick.'
2 B: *ʔah*
INTJ
'Ah.' (conv-funeral_100528_7)

Closely related to *a* is the interjection *aa*, with a long vowel [a:]. Typically, *aa* is uttered when a person just realized or understood something, as in (8). When lengthened a lot, sometimes with the insertion of a glide to create an onset and accompanied by laughter, the form (*w*)*aaa* expresses amusement.

(8) 1 A: *wo* *ee-bu* *wo* (*bi-dɔ-mɛ*) *ku-nugu-yo*
2S C_{1S}.PROG-remove 2S (C_{4S}-thing-DEF) C_{5S}-talk-DEF
pɔ̀ *kìí-zɛ-ga* *ɛ́ya* (*xxx*)
CTR C_{5S}-IT-move here
'She is taking [recording] you, as for the talking, it is passing through that thing [microphone] (xxx)'

2 B: *aa* *kɔ* *bi-trɛ* *dɔ-mɛ* *mɛ*
INTJ so C_{4P}-go thing-DEF inside
'Aah, so it is going inside the thing.'

3 A: *mhm*
INTJ
'Mhm.' (conv-funeral_100528_9)

The interjection *ǎ,* with a rising tone[6], is used as a repair initiator in repair sequences, or to request clarification or elaboration, meaning something like 'huh?'. In (9), speaker B asks A for clarification with *ǎ.* When A explains that they saw him 'at Klara's funeral', speaker B understands, and thus responds with *aa.*

(9) 1 A: *mɔ* *ma-mɔ=yɛ* *li-pa-lɛ* *ní* *akrɔfɔ*
1S 1S.SBJ-see=C_{1S}.OBJ C_{3S}-?-DEF LOC Saturday
'As for me, I've seen him last Saturday.'

2 B: *ǎ?*
INTJ
'Huh?'

3 A: *ni* *Klara* *ku-tse-klɔ*
LOC Klara funeral
'At Klara's funeral.'

4 B: *aa*
INTJ
'Ah.' (conv-funeral_100528_7)

The rising tone of *ǎ* does not conform to the way content questions are typically intonated. Within content questions, the Avatime question word is normally followed by a floating extra high tone that attaches to the final syllable. The question typically ends with a low boundary tone, resulting in a

[6] Contour tones are rare in Avatime phonology, the only lexical examples being the conjunction *lɛ̌* and aspectual prefix *zɛ̌*. Usually they are derived as a result of floating tones or merged syllables, or they occur in long vowels with two different consecutive tones (Putten 2014: 30). The contour tone on *ǎ* could thus also be seen as *aá* (high-extra high), but since it is not clearly a long vowel, I will keep it as *ǎ.*

falling tone on the last (non-low) syllable (Putten 2014: 63-4). So far, this has not been attested with *ǎ*.

Another interjection is *aha*, which can be used for various purposes. It can signal that the speaker has just realized or understood something, similar to *aa* and to the way *aha* is used in English or Dutch, for example. It can also be phatic, being an acknowledgement, signaling that the speaker has heard what the other person said. It can also be other way around, where the speaker says *aha* to express that they expect the other person to have understood, as in (10).

(10) 1 A: *a-sa=yɛ* *kị-kpafụ-yɛ*
C_{1S}-hit=C_{1S}.OBJ C4S-fist-DEF
'He hit her with the fist.'
2 B: *mhm*
INTJ
'Mhm.'
3 A: *aha*
INTJ
'Aha.' (famprob_110316_MM-AlA)

Aha is often part of a sequence of interjections. It is then typically preceded by an affirmative response or continuation marker, as is also the case in (10), and functions as a sequence-closing element (cf. Schegloff's (2007) sequence-closing third in conversation analysis).

The interjection *áò*, as in related languages like Tafi (Bobuafor 2013: 359) and Ewe (Ameka 1991: 655), has to do with hurting or grief. It does not always have to be the speaker who is hurting: *áò* can also be used to sympathize with another person's situation, much like Ewe *hmm* (Ameka 1991: 656). In (11), for example, speaker B exclaims *áò!* when hearing about the painfulness of speaker A's swollen lips.

(11) 1 A: *bi-ye-yi*
C_{4P}-pain-?
'They hurt.'
2 B: *a* *nte?*
INTJ like.that
'Ah yes?'
3 A: *ee*
yes
'Yes.'
4 B: *áò!*
INTJ
'Ao!' (conv-rice_110411_3-2)

2.1.2 ee, ɛɛ *and variations*

Avatime frequently makes use of the vowels [e] and [ɛ] in interjections. One common form is *ee*, which is used in an affirmative or backchanneling way and can be translated to 'yes'. This use of *ee* is separate from its use purely as an answer to a polar question, in which case it is a formulaic word rather than an interjection (e.g., Ameka 1992: 115). Example (12) shows how *ee* is used to show agreement with the previous statement, without it being a direct answer to a polar question; it signals the speaker's attitude towards the discourse and therefore has a phatic function.

The same is done with the interjection *yɛɛ,* which appears to be less frequent than *ee* and might be derived from the English *yeah*. Additionally, *yɛɛ* can be used as a response when you hear someone calling you, meaning something like 'what?'. A form I attested once is *hɛ̃ɛ̃*, which the same affirmative function as *ee* and *yɛɛ*, though it seems to have more emphasis.

(12) 1 A: *nte* *li-po-le* *kii-ŋa* *li-we-le* *kɛ* *ó-ze* *mɔ*
how C_{3S}-time-DEF 1P.PROG-eat C_{3S}-day-DEF same C_{1S}.NEG-be good
'The time we celebrated our anniversary, she was not well.'

2 B: *ee*
INTJ
'Yes.'

3 B: *li-bitɛ* *mɛ* *yaa* *sị* *le* *e-dzagba* *e-tuku* *blo* *si*
C_{3S}-do 1S surprise COMP C_{3S} C_{1S}-try C_{1S}-enter 1P.POS middle
'I was surprised that she was able to come with us.' (conv-funeral_100528_7)

The form *ee* can also be followed by the focus particle *ni*, which makes the meaning of *ee* more emphasized. It is unclear whether *ni* can also be added to other similar interjections (like *yɛɛ*), or whether it is only used with *ee*.

Another related interjection is *ɛhɛɛ*. The last syllable is often lengthened, and the vowels are sometimes nasalized. Like *ee,* it can express agreement or affirmation in a phatic way. It can also be used more introspectively, signaling that the speaker now understands something (similar to *aha*), displaying a cognitive function. An example of the latter is given in (13), where the speaker is trying to see what is happening in the pictures he is describing, and when he realizes what it is, he uses *ɛhɛɛ*.

(13) 1 *aní* *lɔ*
NEG C_{2S}
'It is not that.'

2 *ma-mɔ* *sị* *ɔ-nu* *ɛhɛɛ* *ɔ-kà-ɛ…*
1S-think COMP C_{1S}-be INTJ C1S-father-DEF
'I think that he is, ɛhɛɛ, the man…'

3 *ma-mɔ* *sị* *ɔ-kà-ɛ*

1S-think COMP C_{1S}-father-DEF
'I think that the man…' (famprob_110316_MM-AlA)

Like *aha,* the form *ɛhɛɛ* is also often used as a sequence-closing element, as illustrated in (14), where it means something like 'indeed'.

(14) 1 A: *company-lɔ* *kó* *a-lá-dzinì* *koko-e* *dzi* *kɨ́* *ba*
company-DEF TOP C_{3P}-DEM?-return cocoa-DEF buy give C_{1P}
'It is that company who will buy back the cocoa.'
2 B: *mm*
INTJ
'Mm.'
3 A: *ɛhɛɛ*
INTJ
'Ɛhɛɛ.' (conv-greenhouse_110408_SO-ViA_2)

In Ewe, Ameka (1991: 667) distinguishes two similar forms with different meanings: one is *ehẽ* with the cognitive meaning of having just understood something; the other is *ehé,* with a high tone on the last syllable, which has a phatic function. In the current corpus I have not found enough evidence to split *ɛhɛɛ* up into two separate forms, which is why I treat it as one interjection with multiple functions.

The form *ɛɛ*, while similar in form, has a very different meaning. It is used as a hesitation or delay marker, to signal that the speaker is still thinking about what to say and that the turn should not be passed yet, as illustrated in (15).

(15) 1 *bɛ-ta-ki* *blɔ* *bi-dɛya* *bi-dɛya*
C1P-INT-give 1P C4P-thing:PROX C4P-thing:PROX
'They will be giving us this thing, this thing…'
2 *ɛɛ* *ŋwa* *si* *welfare* *bi-dɛya* *tete*
INTJ like COMP welfare C4P-thing:PROX only
'Eeh, just like the welfare type.' (conv-funeral_100528_9)

The form *ɛɛ*, or *wɛɛ* with a glide insertion, can also be used in constructions of self-initiated repair, to signal that the corrected element is now following. An example of this construction is given in (16).

(16) *kɔ* *mawu-ye* *a-yɔ* *ke-du* *ní* – *ɛɛ* *government-ye*
then God-DEF C_{1S}-get.up C_{6S}-put LOC INTJ government-DEF
a-yɔ *ke-du* *ní* *bɛ* *sụ*
C_{1S}-get.up C_{6S}-put LOC C_{4P} near
'Then God will stand against – eeh, the government will stand against that.'
(conv-greenhouse_110408_SO-ViA_2)

2.1.3 mm *and variations*

There are numerous Avatime interjections involving bilabial nasals. Probably the most frequently used ones are *mm* and *mhm*, without any marked tonal patterns. A less frequent variation is *hmm.* They are mostly used as a backchanneling signal or continuation marker, as in (8). Sometimes, they can also express negation, as in (17), where *mhm* is accompanied by a head shake.

(17) 1 A: *aní* *ke-de-a?*
NEG C_{6S}-back-DEF
'Not the back?'
2 B: *mhm* *kú-lá-tsyi* *ke-de-a*
INTJ C_{6P}-?-turn C_{6S}-back-DEF
'Mhm, we should not turn [them] around.' (famprob_110316_MM-AlA)

Other interjections involving [m] carry certain suprasegmental information that characterizes their meaning. One of these is *mhḿ*, which has a phatic function of affirmation or acknowledgement. In its functioning and tone, it is like a vowelless version of the phatic *ɛhɛɛ* (see §2.1.4). Phonetically, *mhḿ* differs from *mhm* in a number of ways, one of which is in pitch or F0. Figures 2 and 3 show the pitch tracks from typical realizations of mhm (A) and *mhḿ* (B) by two male speakers, in which this difference can be seen. While *mhm* stays quite stable (with some falling intonation, which can be attributed to downdrift), in *mhḿ* there is a rising contour before falling again. Since the second part of *mhḿ* has a higher tone than the first part, I write the symbol for extra high tone on the second <m>.

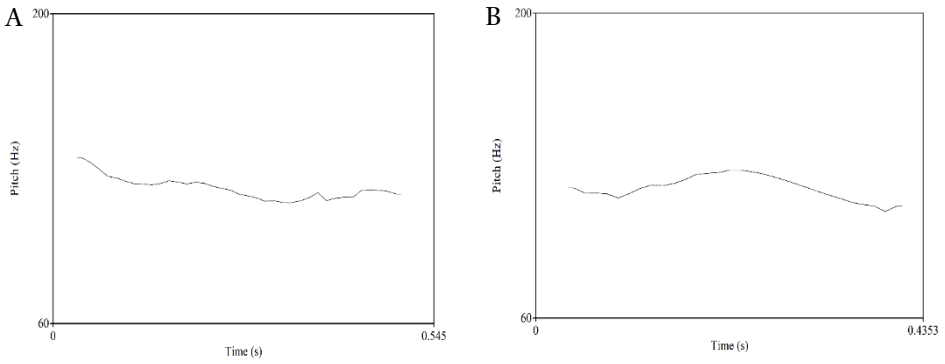

Figure 2AB. Pitch tracks of a canonical instance of *mhm* (A) and *mhḿ* (B) as produced by MM (famprob_110316_MM-AlA).

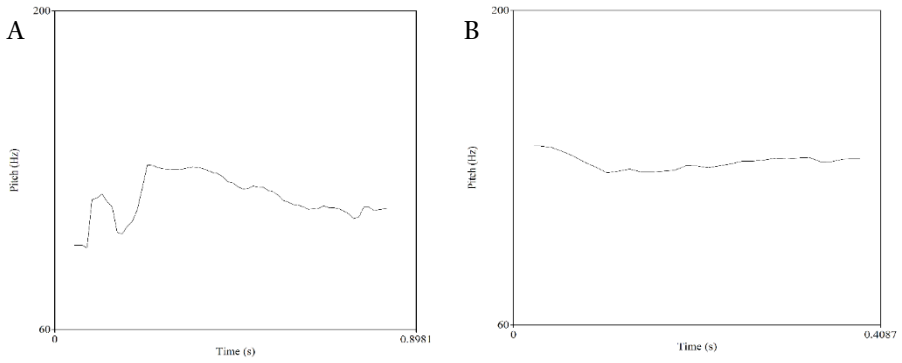

Figure 3AB. Pitch tracks of a canonical instance of *mhm* (A) and *mhḿ* (B) as produced by AlA (famprob_110316_MM-AlA).

The form *hḿḿ*, with extra high tone, is used in response to (new) information, similar to backchanneling forms *mm* or *mhm*. With its extra high tone, however, it is more marked and suggests that the producer of the interjection has an opinion about this information.

There is also *m̌* (or *mḿ*), which seems to be the nasal equivalent of *ǎ*, with a similar rising pattern (see §2.1.1). It is also used as a repair initiator (similar to (9)), or to ask for confirmation that the other person is still following, as in (18).

(18) 1 A: *pɔ* *bi-dɛya* *gì* *bɛ́* *má-mɔ* *ní* *foto* *lɛ́ya* *mɛ*
but C4P-thing:PROX REL C_{1P} C_{4P}-see LOC photo C_{1S}.PROX inside
'But what I saw in this picture…'

2 A: *m̌?*
INTJ
'Mm?'

3 B: *mhm*
INTJ
'Mhm.' (famprob_110316_MM-AlA)

Lastly, there is *ḿ-m*, with a glottal stop in between the two [m] sounds, the first of which has an extra high tone. This interjection is used for negation, as illustrated in (19).

(19) 1 A: (xx) ì-gɔ̀-nɛ́ e-vu àlɔ́
(xx) C_{2P}-coconut-DEF C_{1S}.SBJ-hold or
'Is she holding coconuts?'

2 B: *ḿ-m* *apple*
INTJ apple
'No, apples.'

3 A: *e-vu* *apple-a*
C_{1S}.SBJ-hold apple-DEF
'She is holding apples.' (famprob_110316_MM-AlA)

2.1.4 o *and variations*

A common use of the form *o* is to express negation, in which case it is often – but not necessarily – followed by negation marker *aní*. An example is given in (20).

(20) 1 A: *àbla* *wɔ* *tsyɛ* *ga* *pɔnì=blɔ*
now 2S ADD move help=1P.OBJ
'Now you too come and help us.'
2 B: *o* *mla-bìtɛ*
INTJ 2P.SBJ-do
'O, you should do it.' (conv-street_100720_1)

It can also be repeated multiple times for emphasis. The same kind of negation can be expressed with the form *óho*. In this case, more emphasis is put on the interjection, and it is more exclamatory. Both can be considered phatic interjections, as they present an attitude of the speaker towards the discourse.

The form *o* can also be used in the cross-linguistically common way of expressing a change in the speaker's state of knowledge (Norrick 2009: 868), thus functioning as a cognitive interjection, as in (21).

(21) 1 A: *mɛ-yɔ* *ɛ́lo*
1S-get.up FP
'I'm going.'
2 B: *o* *wo-do* *pɔ́* *waa-trɛ*
INTJ 2S-say finish 2S.POT-go
'O, you have finished talking, you can go.' (conv-funeral_100528_9)

While it is clear that (20) and (21) present different meanings, it is unclear whether there is also a difference in form between the two. At first sight, they seem to be homophonous, but there might be a subtle difference, for example in the use of tone, that I have not yet been able to identify. The 'negating' *o* is often produced with a low tone, but this is not exclusive to this use of *o*, as low tone is also possible in the other *o*.

There are several interjections with forms related to *o* that are used in expressive functions. For example, the form *owo* (which is typically repeated multiple times, resulting in *owowowo!*) signals that the speaker is surprised at, impressed with, or excited about something that is happening. For example, one speaker uttered this when a bottle of liquor was brought to the group. Similarly, the forms *owaa* or *woa* can be uttered when another person is doing something impressive.

2.1.5 Clicks

While clicks are not a part of Avatime phonology, they can be used as interjections or 'verbal gestures'. In fact, this is the case for many other languages without phonemic clicks (Lionnet 2020). The most common functions of these interjectional clicks are 'logical' (i.e., as affirmative or negative responses) and 'affective' (i.e., expressing approval or disapproval). Within classifications of interjections, they would be part of the phatic and expressive interjections, respectively.

I attested six instances of clicks in the Avatime corpus used in this study. In this subsection, I describe their acoustic patterns and characterize which types of clicks they seem to be. To this end, I look at the properties of the bursts of air that accompany clicks, and determine their most likely place of articulation. This preliminary analysis is based on Fulop & Wright's (2020) methodology for the acoustic analysis of clicks. Additionally, I describe how these instances of clicks function in the discourse in which they were attested.

The first two clicks, illustrated in Figures 4 and 5, were produced by a male speaker (AlA) in the same conversation. Both clicks have the function of correcting of the speaker's own speech, as a self-initiated repair marker, and can be characterized as 'phatic'. While clicks usually have two bursts – the anterior and the dorsal burst – the click in Figure 4 has only one burst. This suggests that the click is pre-nasalized or glottalized (Fulop & Wright 2020: 250). Since glottalization would be accompanied with a strong release, which is not present here, I will assume that it is a case of (voiceless) nasalization. The burst is not very abrupt, which makes it likely to be a dental or bilabial click (cf. Fulop & Wright 2020: 249). Bilabial clicks tend to have a very short initial burst, while the present burst is longer. This, combined with my audio-visual impression, leads me to describe the click in Figure 4 as a voiceless pre-nasalized dental click, or [ŋ̥ǀ].

The second click, illustrated in Figure 5, shows a noisy first (anterior) burst, which is almost like a brief fricative, followed by a much more abrupt second (dorsal) burst. This, according to Fulop & Wright (2020), is typical of a dental click. The third peak in the waveform (5A), which in the spectrogram (5B) is quite evenly spread out, except in the ground frequency, is likely the result of voiceless aspiration. This click can therefore be transcribed as [ǀʰ].

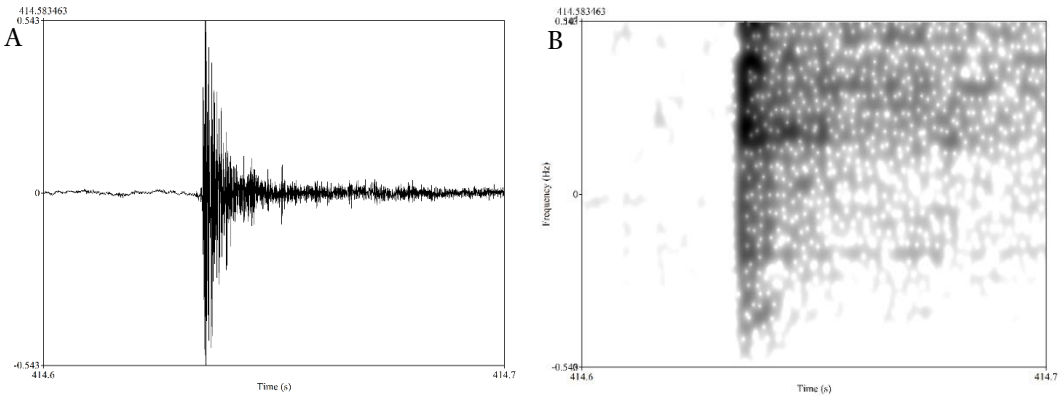

Figure 4AB. Waveform (A) and spectrogram (B) of click [ŋ̥ǀ] produced by AlA (famprob_110316_MM-AlA).

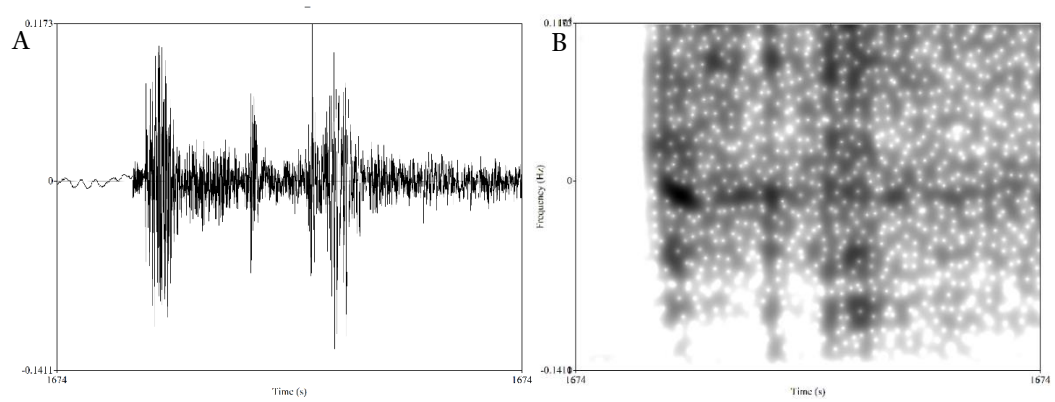

Figure 5AB. Waveform (A) and spectrogram (B) of click [ǀʰ] produced by AlA (famprob_110316_MM-AlA).

The clicks shown in Figure 6 and 7 were produced by another male speaker (MM) within the same conversation as the clicks in Figures 4 and 5. In both 6A and 7A, there are two high peaks; however, upon closer inspection of the spectrograms in 6B and 7B, it seems that these peaks do not equal two separate bursts. In fact, the waveform is very similar to the one of a bilabial click described by Fulop & Wright (2020: 251) (illustrated in Figure 8), including the small peak preceding the burst as well as the long release with multiple peaks. I thus categorize the clicks in Figures 6 and 7 as voiceless pre-nasalized bilabial clicks, or [ŋ̥ʘ]. The clicks do not appear to have the same function. While the speaker utters the click in Figure 5 before correcting his own speech (similar to the clicks in Figures 3 and 4), the one in Figure 6 signals that the speaker disapproves of what the other person is saying. While the click in Figure 5 is more discourse-oriented and phatic, the one in Figure 6 is more centered around the speaker's thoughts and has an expressive function.

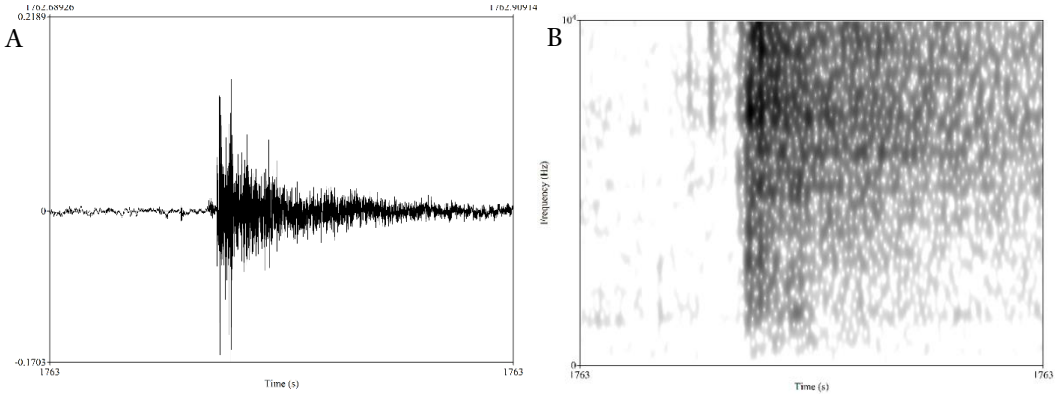

Figure 6AB. Waveform (A) and spectrogram (B) of click [ŋ̥ʘ] produced by MM (famprob_110316_MM-AlA).

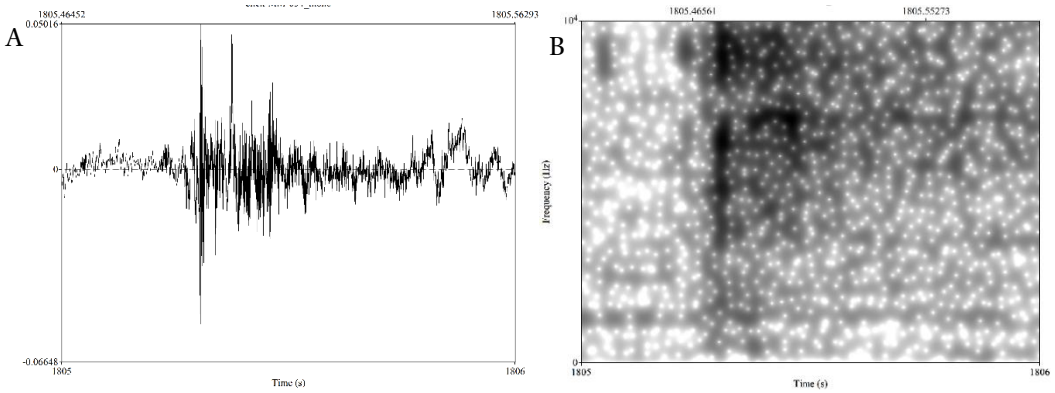

Figure 7AB. Waveform (A) and spectrogram (B) of click [ŋ͡ʘ] produced by MM (famprob_110316_MM-AlA).

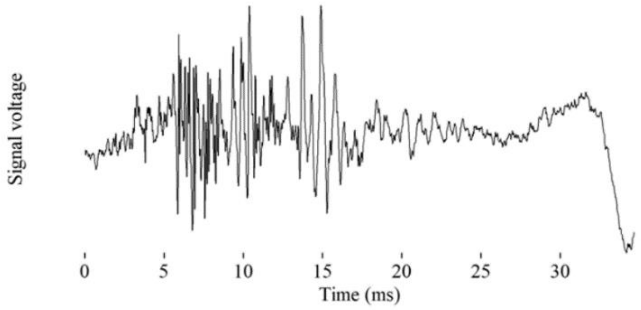

Figure 8. Example of a pre-nasalized bilabial click [ŋ͡ʘ] with one burst. Reprinted from Fulop & Wright (2020: 251).

The click illustrated in Figure 9 was produced by a female speaker (MaO) during a conversation about a man who was too drunk to go to church. With this click, the speaker presumably expresses her thoughts of disapproval. The click has two bursts, as can be seen from the two groups of peaks in the waveform (9A). The abruptness of the bursts is hard to define, since the signal includes noise from overlapping speech. It appears that the peaks in the anterior burst are quite spread out, which can also be seen in the spectrogram (9B), making it look fricative-like. This leads me to tentatively analyze this click as dental, or [ǀ].

The sixth and last click in this dataset was produced by another female speaker (VB) while talking about a person who is very ill. With the click, she expresses pity, sadness and/or other negative affective meanings. Since there is too much overlapping noise for the waveform to be informative, I only include the spectrogram in Figure 10. This still gives some indication of the click's characteristics. It shows there are two bursts, with the second being more abrupt than the first one. Looking quite similar to the click in Figure 9, I also tentatively analyze Figure 10 as a dental click, or [ǀ].

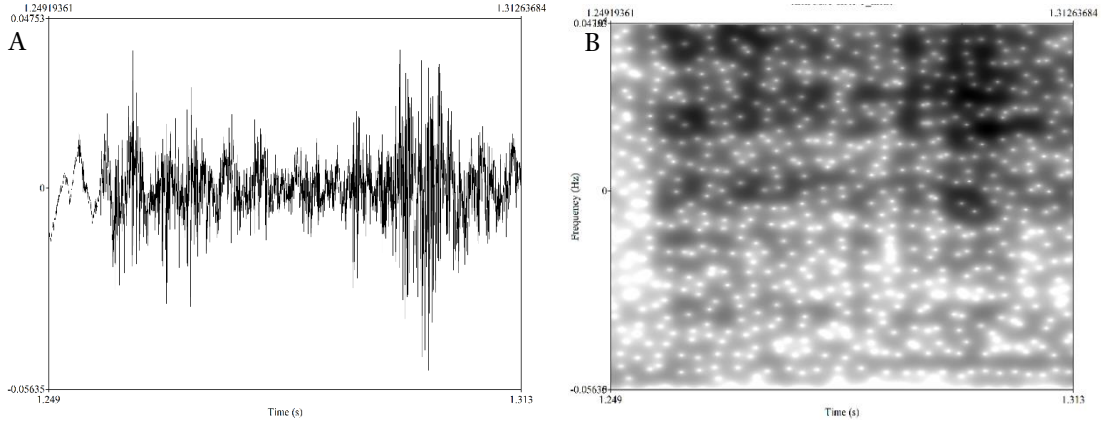

Figure 9AB. Waveform (A) and spectrogram (B) of click [ǀ] produced by MaO (conv-rice_110411_3-3).

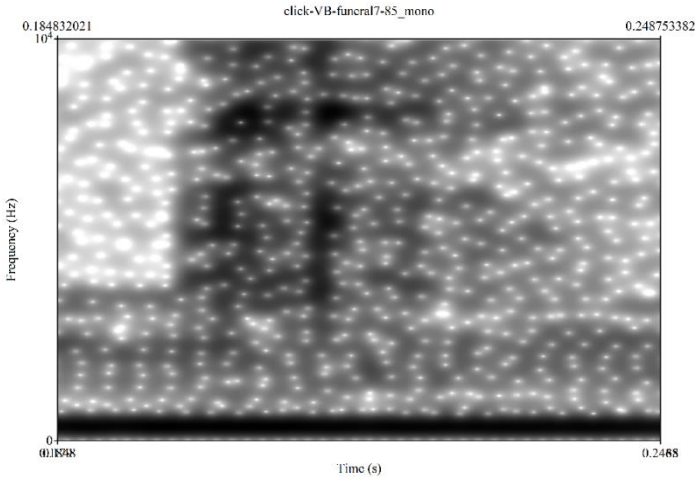

Figure 10. Spectrogram of click [ǀ] produced by VB (conv-funeral_100528_7).

In sum, it appears that the clicks used in this Avatime corpus are either negative affective (disapproving of a situation) or negative logical (disagreeing with another speaker or themselves, in the case of self-initiated repair). The affective clicks can be said to be expressive in function, and the logical ones can be called phatic. Clicks to express positive affect have not been attested.

The places of articulation of the clicks are either bilabial and dental. Of the six attested clicks, I analyze three as dental and three as bilabial, although the bilabial clicks were only produced by one of the four speakers. Since there are no phonemic clicks in Avatime, there might not be strict 'rules' that the speakers adhere to when producing clicks, which could explain this non-systematic variation. It should be noted, however, that these acoustic analyses are very preliminary; having a larger collection of clicks, recorded in a cleaner way with less background noise or overlapping speech, would allow for a more detailed analysis.

2.1.6 Other primary interjections

There are a number of other interjections that, as far as I am aware, do not occur as other parts of speech in the Avatime lexicon, and are thus also 'primary'. One of these is the form *yoo*, which is commonly used to express agreement. It is also used in certain conversational routines, e.g., as part of greeting sequences, and it is often lengthened.

The form *sĩ* can be used as an insult, to show that you do not like what someone is saying or doing. It is not necessarily a very offensive insult, as it is used between two (male) friends in the corpus, see (22).

(22) 1 A: *wɔ* *lị-sure* *sị* *a-dzɛ* *xunyɔ*
2S C_{3S}-sure COMP C_{1S}-go CTR
'Are you sure he went?'
2 B: *o* *sĩ …*
INTJ INTJ
'O, sĩ …' (conv-ablorme_100715_SO-AS)

The interjection *tsyalélé* (also *tsalélé*, *dzalélé* or *dzyalélé*) is used to express shock or surprise on behalf of the speaker, similar to the English *shit!*. In the Avatime word list it is also translated as 'help'. Similar forms are described for surrounding languages, like *dzalélé* in Ewe (Ameka 1991: 645) and Logba (Dorvlo 2008: 248), and *dzyalélée* in Tafi (Bobuafor 2013: 357), which all seem to have the same function. In Ewe and Logba it is said to also express pain and grief, and that the speaker would normally be in a trembling state. While this is most likely also possible in Avatime, I have only attested it in casual conversations without a very serious meaning. In (23), it is uttered in response to a story about a drunkard, the same as where one of the clicks in §2.1.5 was produced.

(23) 1 A: *xé* *bɛtrɛ* *a-sị* *bɛɛ-xwa* *joe* *bɛ-ba* *ko*
when C_{1P}-go C_{1S}-say C1P.SBJ.PROG-call Joe C_{1P}-come only
sị *joe* *e-mu* *tsii*
COMP Joe C_{1S}.SBJ-ascend ID
'When they went to call Joe, Joe was very drunk.'
2 B: *tsyalélé!*
INTJ
'Tsyalele!' (conv-rice_110411_3-3)

An interjection that was only attested twice, and by the same speaker (AB), is [kautʃ], which in the Avatime orthography would be transcribed as *kautsy*. This form is phonologically anomalous; Avatime words do not normally end in [tʃ]. The meaning of *kautsy* is not fully clear, but it seems to be an emotive interjection that expresses satisfaction; in the situation in which it is used, the speaker

has just heard she will be receiving some books from the Netherlands, which makes her happy, see (24). The interjection is accompanied by a hand gesture that I also have not attested anywhere else in the corpus, namely a flat handshape with the palm facing down, with a sliding forwards movement.

(24) 1 *kautsy*
INTJ
'Kautch!'
2 *bi-zɛ-tsisi* *mɛ* *ku-klikpa* *lo!*
C_{1P}.SBJ-HAB-send 1S.FOC C_{6S}-book FP (conv-funeral_100528_8)

Finally, some interjections were not attested in the current corpus, but nevertheless mentioned in the Toolbox Avatime wordlist. There is the form *kò* (also written as *kô,* indicating a falling tone), which is used to indicate disapproval of something. The wordlist gives the translations 'snobbery' and 'piss off', which were provided by one of the Avatime speakers. In one example, *kò* is preceded by the form [tʃ], which I write as *tsy*, adding to the expression of disapproval. Lastly, there is the form *dzaboboe*, which is characterized as an exclamation to ask for help or indicate danger.

2.2 Secondary interjections

Although most of the attested interjections are classified as primary, I also found some secondary interjections in Avatime conversations. This means that their forms are not only used as an interjection, but also in other word classes in the language (cf. Ameka 1992a: 111).

One of these is *oke*, which is borrowed from English *OK,* where it is considered a secondary interjection (Norrick 2009), since it can also be used as, for example, an adjective. It is unclear if this is also the case for Avatime speakers using the form *oke*, but for now I classify it in the same way.

The form *ńte or níte* 'like that' is used as an interjection to express a state of understanding (also when combined with *a*) or agreement (also when combined with *ee*). Outside the class of interjections, it is typically used adverbially, as in (25), where it is possibly a combination of locative marker *ní* and *te*, which also means 'like that' (it is glossed this way in Defina 2016).

(25) *níte* *ki-do* *li-wé* *lɛ́-lɔ̀*
like.that 1P.SBJ-say C_{3S}-day C_{3S}-DIST
'That is what we said that day.' (Putten 2014: 167)

The form *matráà* (*lo*) literally means 'I'm coming'.[7] When used as an interjection, however, it means something like 'wait', and expresses the speaker is still thinking about something and arriving to their point. It is often but not always followed by final particle *lo*. It varies whether it is used it as a

[7] It is noted in the Toolbox dictionary that this verb is only used in the aorist and has a progressive meaning.

phatic response to someone else (signaling the other person should wait before taking the turn), as in (26), or introspectively as a cognitive interjection, when the speaker is coming to a realization, for example.

(26) 1 A: *ma-tráà*
1P.SBJ-come
'I'm coming.'
2 B: *mhm*
INTJ
'Mhm.'
3 A: *má-mɔ foto ɔ́-tɔɛ*
1S.SBJ-see photo C1S-INDF
'I've seen a certain picture.' (famprob_110316_MM-AlA)

Another secondary interjection is *nene (o)!*, which is translated to 'mother!'. Interesting is that a reduplicated version the stem of the word for 'mother' is used, *-ne*, whereas normally it would have a class prefix, resulting in *one* (sg.) and *bene* (pl.). Like with *matráà*, the form is often followed by the final particle *o*. It is used as an emotive exclamation of excitement or surprise. For example, when someone brought a big bottle of *akpeteshi* (a local spirit) to the group, this resulted in exclamations of excitement like o*wowowo* and *nene o!*, as illustrated in (27).

(27) 1 A: *wɛɛ-dra kɔ tsa?*
2S.SBJ.PROG-open CTR cut
'Are you opening it?'
2 B: *nene o!*
INTJ FP
'Oh mother!' (conv-rice_110411_3-3)

The last secondary interjection I attested is more of an interjection phrase, namely *egé na!*. The form *egé* is a question word meaning 'what', and *na* is a content question marker that can be added for extra emphasis (van Putten 2014: 63-4). It can be translated to 'what!' or 'what is this!'. It seems to express amusement and a degree of disbelief or surprise and can therefore be classified as an emotive interjection phrase. It is not uttered as a direct response to someone, but rather comments on a certain situation, or on the conversation that was taking place previously. In (28), two women were joking around, and after they laughed about it, speaker B exclaimed *egé na!*.

(28) 1 A: *kɔ* *bia-kɔ* *waa-ŋwɛ* *niklɔ* *ko*
CTR C_{1P}.SBJ.POT-give 2S.SBJ.POT-drink there CTR
waa-fɛ *kelaati*
2S.SBJ.POT-sleep? ?
'They will give you to drink, that will be the place you sleep until daybreak.'
2 [A and B laughing]
3 B: *egé* *na!*
what Q
'What is this!' (conv-funeral_100528_8)

The 42 interjection forms that were described in §2.1 and §2.2 are all listed in Table 5, including a characterization of their function in the discourse. Of course, this list is not exhaustive. There are surely more forms in Avatime, and the forms that are listed here may also have more functions; however, these are the ones that occur in the present corpus.

Table 5. Inventory of Avatime interjections attested in the dataset.

Form	**Function**
(w)aaa	expressing amusement, usually accompanied by laughter
[l]	expressing disapproval, pity, sadness
[l^h]	marking self-initiated repair
[ŋ̊l]	marking self-initiated repair
[ŋ̊⊙]	1. marking self-initiated repair
	2. expressing disapproval
a	having understood or acknowledged what was said before
ǎ	initiating repair or asking for clarification when they did not understand what someone said ('huh?')
aa	having just realized or understood something
aha	1. having just realized or understood something,
	2. checking whether the other person has understood
	3. closing the sequence
áò	expressing pain or grief, or sympathizing with someone else's pain
dzaboboe	crying for help, indicating danger
ee	affirmative, expressing agreement
egé na!	expressing amusement, disbelief, surprise (lit. 'what is this!')
ɛɛ	1. marking hesitation or delay
	2. marking self-initiated repair
ɛhɛɛ	1. expressing agreement
	2. having just understood something (like *aha*)
	3. sequence-closing
hɛ̃ɛ̃	affirmative, expressing agreement (with emphasis)
hmm	same as *mm*

hḿḿ	responding to new information
kautsy	expressing satisfaction, happiness
kò	expressing disapproval (like telling someone to 'piss off')
m̌	1. initiating repair, asking for clarification
	2. asking for confirmation, checking if the other person is still understanding.
matráà (*lo*)	signaling that the speaker is thinking and coming to a point, letting others speakers know they should not take the turn yet (lit. 'i'm coming')
mhm	same as *mm*
mhḿ	acknowledging or affirmative (like 'indeed')
mm	1. backchanneling, wanting the other speaker to continue
	2. negating
	3. closing the sequence
ḿ-m	negating
nene (*o*)*!*	expressing excitement, surprise (lit. 'mother!')
níte	same as *ńte*
ńte	expressing understanding, agreement
o	1. negating;
	2. expressing change in the speaker's state of knowledge
óho	negating (with emphasis)
oke	expressing agreement
owaa	same as *owo*
owo (*owowo*)	expressing surprise, or being impressed with something that is happening.
sĩ	expressing displeasure, insulting someone
tsy	expressing disapproval
tsyalélé	expressing shock, surprise
wɛɛ	same as *ɛɛ* in repair
woa	same as *owo*
yɛɛ	1. expressing agreement
	2. responding to a call
yoo	expressing agreement
ʔah	expressing shock or indignation

3 Coding analysis

In order to better understand the behavior of interjections in Avatime interactional discourse – especially since some of the forms sound very similar, but seem to behave in different ways – I coded the interjections for a number of variables. These variables are partly based on previous literature, where they have been shown to play a role in the interjection system of other languages, and partly on the basis of my own preliminary observations of the Avatime language data. §3.1 presents which materials were used, which variables were coded for and how they were analyzed; in §3.2, the results of the coding study are presented; finally, §3.3 contains a discussion of the coding results.

3.1 Method

3.1.1 Materials

For this coding analysis, I used a set of spoken data from Saskia van Putten's collection in The Language Archive. These data come from the collection of spontaneous conversations and consist of eight different files. Sometimes not the whole file was transcribed. To be able to interpret the interjections within the surrounding discourse, I only used those parts that were transcribed in this coding analysis. The length of the transcribed parts varied between 4 and 31 minutes, with an average length of 10 minutes. The files are presented in Table 6 below. They are also included in Table 4 (§1.3), along with a description of their content.

Table 6. Names and length (in minutes) of the files used for the coding analysis. The length column presents the length of the transcribed parts of the file. The abbreviated file names as used in the rest of this analysis are included in parentheses.

File	**Length (minutes)**
conv-greenhouse_110408_SO-ViA_2 (*greenhouse*)	12.1
conv-funeral_100528_7 (*funeral7*)	6.3
conv-funeral_100528_8 (*funeral8*)	5.8
conv-funeral_100528_9 (*funeral9*)	8
conv-rice_110411_3-2 (*rice2*)	5.9
conv-rice_110411_3-3 (*rice3*)	6.3
conv-street_100720_1 (*street*)	4.3
famprob_110316_MM-AlA (*famprob*)	31

3.1.2 Variables and procedure

Firstly, I described the following metadata for every instance of an interjection: the name of the file, the line in which the interjection occurs, and the speaker who utters the interjection. Then, I coded each instance for the following variables: function, turn position, sequence, switch, gesture and facial expression. The full coding scheme is included in the Appendix.

'Function' codes the main function of interjection in this particular instance. It can be one of the two expressive types (i.e., emotive or cognitive), conative, or phatic (abbreviated as *exem*, *excog*, *con* and *pha*, respectively). 'Position' codes the position of the interjection within the speaker's turn. It can be isolated (i.e., the only element in the turn), turn-initial, turn-internal or turn-final (abbreviated as *iso*, *ini*, *int* and *fin*, respectively).

'Sequence' codes the interjection's position in a sequence of interjections, i.e., when it is directly preceded or followed by other interjections. It can have the following values: *n* (no sequence), *1* (first interjection in the sequence), *2* (second interjection in the sequence), and so forth. Related to this variable, 'switch' codes whether the interjections in the sequence are uttered by the same speaker (*ss*) or different speakers (*ds*). If there is no sequence, this field remains empty.

'Gesture' codes whether the interjection is accompanied by a co-speech gesture made with the head, hands, or other parts of the body. It can have the following values: *y* (yes), *n* (no), or *c* (can't tell). Similarly, 'facial expression' codes whether the interjection is accompanied by noticeable facial action of the speaker. It also takes one of the values *y*, *n*, or *c*.

The files were examined and the interjections annotated in ELAN. They were then coded for the abovementioned variables in Microsoft Excel. The lines in Table 7 give an impression of the coded data. It includes a column for comments to describe the gesture and/or facial expression used, and a column for any other comments.

Table 7. Some example lines of coding.

file	**line**	**speaker**	**form**	**function**	**position**	**sequence**	**switch**	**gesture**	**face**	**comment face/gesture**	**other comments**
conv-greenhouse_110408_SO-ViA_2	300	ViA	mm	pha	iso	1	ds	n	n		
conv-greenhouse_110408_SO-ViA_2	272	SO	ɛhɛɛ	pha	iso	2	ds	y	n	head nod	
conv-greenhouse_110408_SO-ViA_2	312	SO	m̀-m̀	pha	iso	no		y	n	head shake	negating

3.1.3 Analysis

The results were processed and analyzed with R (R Core Team 2022) and the R packages "dplyr" (Wickham et al. 2020), "ggplot2" (Wickham 2016) and "ggthemes" (Arnold 2019). I examined the distributions of absolute and relative frequencies for the different variables. I also looked at the relationship between the function of interjections and the other variables, for which I performed Pearson's chi-squared test of independence and inspected the standardized residuals by means of mosaic plots (Hartigan & Kleiner 1981).

3.2 Results

In total, I attested 895 tokens and 77 different types[8] of interjections in the data. The 20 most frequent forms, with four or more occurrences per form, are included in Table 8. Some splits can be observed in these frequencies. Firstly, the three most frequent interjections (*mm, ee* and *mhm*) together account for half of all the interjections. additionally, places 4 through 10 are between 8% and 3%, and the rest around 1% or less. All of the top 10 are primary interjections. (most of them are primary, but some secondary ones occur further down the list).

Table 8. Absolute and relative frequencies (percentages rounded to one decimal) of the 20 most frequently attested interjections.

	Form	**Frequency**	**Relative frequency (%)**
1	*mm*	213	23.8
2	*ee*	121	13.5
3	*mhm*	116	13
4	*ɛɛ*	68	7.6
5	*ɛhɛɛ*	52	5.8
6	*aha*	33	3.7
7	*aa*	32	3.6
8	*yɛɛ*	32	3.6
9	*a*	31	3.5
10	*o*	29	3.2
11	*oke*	12	1.3
12	*matráà*	11	1.2
13	*ao*	9	1
14	*mhḿ*	9	1
15	*óho*	9	1

[8] The total number of types is larger than the number of interjections in the inventory in Section 2. The extent to which phonologically distinct forms are coalesced into the same interjection in the coding analysis does not always correspond to the extent to which they are coalesced in the inventory. The divisions in the coding were made for convenience; sometimes the same forms were given slightly different spellings, because I typed the forms as I heard them in the process of coding. As such, the division as shown in the inventory is more representative of the different forms of interjections found in the language.

16	*yoo*	8	.9
17	[*click*]	6	.7
18	*ɛɛm*	5	.6
19	*m̆*	4	.4
20	*ńte*	4	.4

3.2.1 Function

Table 9 shows the frequency of the different functions of interjections in the corpus. It can be seen that phatic interjections are by far the most frequent, followed by the cognitive ones. Emotive and conative interjections are the least frequent. For five interjections I was not able to identify the function. The relative frequency of phatic interjections is not surprising, since the most frequent interjections *mm, mhm* and *ee* (see Table 8) are all mostly phatic in function. In fact, if these three interjections are disregarded, the proportion of phatic and cognitive interjections is almost equal, with 44% being phatic and 42% cognitive in function.

Table 9. Absolute and relative frequencies (percentages rounded to one decimal) of the different functions ascribed to interjections in the corpus.

Function	**Frequency**	**Relative frequency (%)**
Phatic	628	70.3
Expressive	230	25.7
Cognitive	*201*	*22.5*
Emotive	*29*	*3.2*
Conative	29	3.2
Unknown	5	0.7

Many interjection forms are attested with different functions. For example, the interjection *a* most often occurs with a cognitive function, (e.g., expressing that new information was received, or suddenly understanding something) but there are also some instances of *a* with a phatic or conative function, e.g., when using it as a repair marker.

In order to examine whether the distribution of functions differs with types of conversation, Figure 11 shows the functions attested in each file in the corpus. The file *famprob* contains the most interjections in general (which can be expected, since it is the longest file in the collection), but in particular contains many more phatic interjections than the other files. Looking at this file specifically, it contains especially many instances of *mm* and *mhm*. Another observation is that in *rice2*, the number of cognitive and phatic interjections is much more equal than in the other files, where phatic interjections are the clear majority. Finally, it can be seen that some files do not even have all types of interjections: while all files contain phatic and cognitive interjections, conative interjections are lacking in *funeral8*, and no emotive interjections are found in *greenhouse*, *street* and *famprob*.

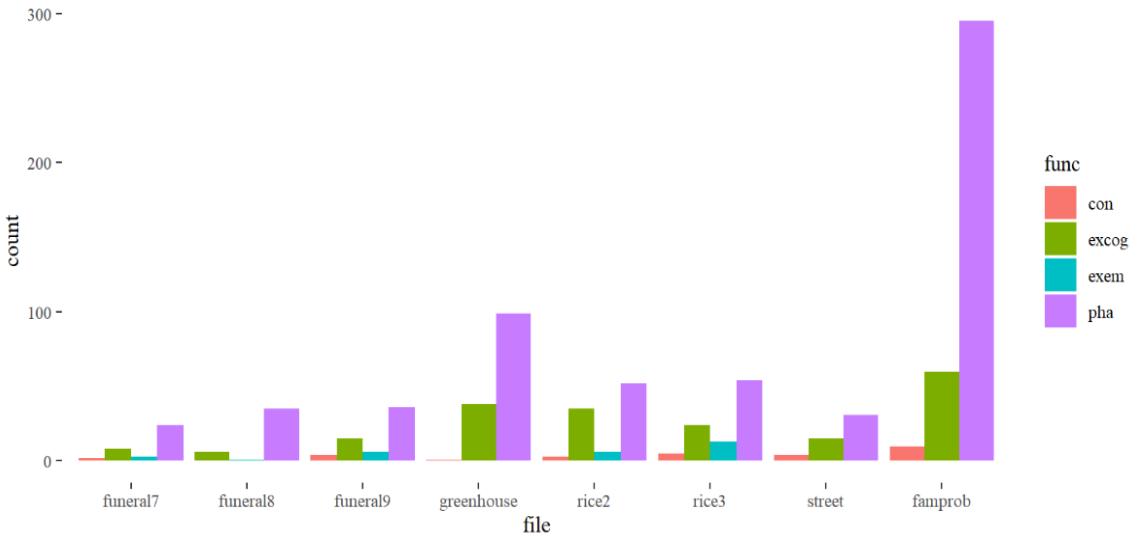

Figure 11. Distribution of functions of the interjections in each coded file.

3.2.2 *Position*

Table 10 shows the frequencies of positions within the turn. The majority of the attested interjections (60.8%) were found to occur 'isolated', meaning that in these cases, the interjection was the only element in a given turn. Turn-initial interjections account for 25.1% of the cases. Interjections occurring in the middle and at the end of the turn are the least frequent, accounting for only 8.5% and 5.6%, respectively.

Table 10. Absolute and relative frequencies (percentages rounded to one decimal) of the different positions in the turn of the interjections in the corpus.

Position	**Frequency**	**Relative frequency (%)**
Isolated	541	60.8
Initial	223	25.1
Internal	76	8.5
Final	50	5.6

Looking at the behavior of individual forms, it seems that some forms typically occupy the same position in the turn. Interjections that are typically isolated are *mm, mhm, mhḿ, yɛɛ* and *ʔah*; a typically turn-initial interjection is *o*; *ee* and *a* usually occur either isolated or turn-initial; and *ɛɛ* is typically found turn-initially or turn-internally. However, *ɛɛ* as an expression of delay or hesitation has also been attested in isolated positions. Other forms vary a lot in their positions, such as *oke, matraa, aha, aa, ɛhɛɛ* and the clicks.

Figure 11 shows the distribution of the positions for each function of interjections. It can be seen that the isolated interjections – which are in the majority – are almost all phatic. The turn-initial interjections, however, are more equally phatic and cognitive, and the turn-internal ones are even more often cognitive than phatic.

Pearson's chi-squared test also shows that there is a significant relationship between position and function of the interjections, $X^2(9) = 182.41$, $p < .001$. Where exactly the positions and functions are deviant from a random distribution can be seen in the standardized residuals, which are shown in the mosaic plot in Figure X. Cognitive interjections most frequently occur in initial and internal position, and significantly less frequently in isolated position. Conative interjections are relatively more frequent in final position, while phatic interjections are more frequent in isolated position, and significantly less frequent in initial and internal position.

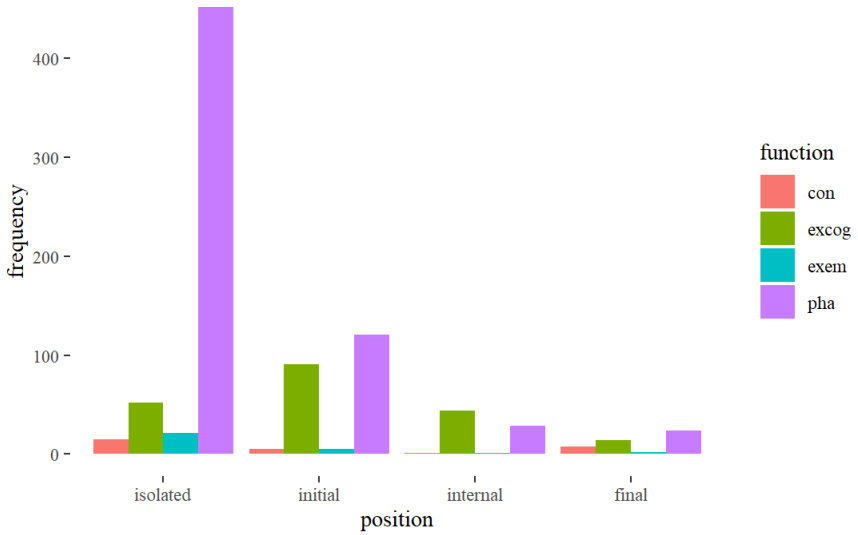

Figure 12. Bar plot of turn positions organized by function.

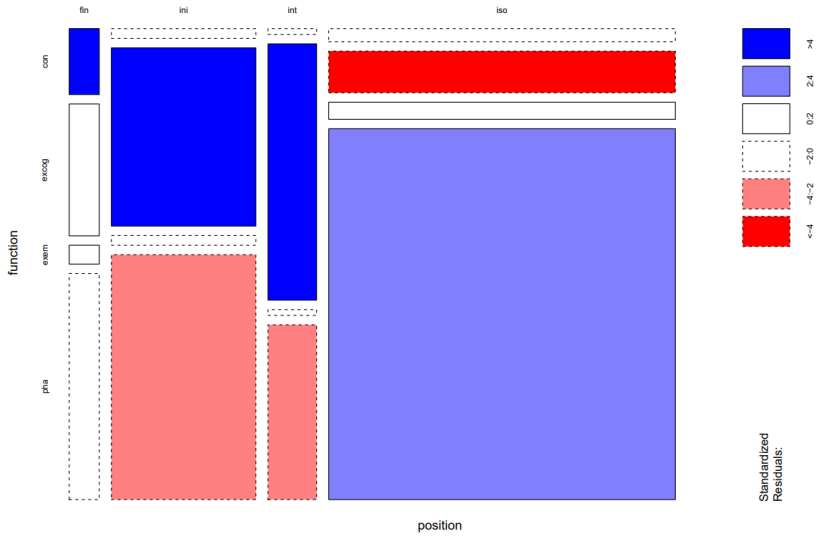

Figure 13. Mosaic plot of the relationship between the function and position of interjections. The blue squares mean that there are significantly more observations of this combination of position and function than would be expected with a random, independent distribution; the red squares mean there are significantly fewer observations than expected based on an independent distribution.

Table 11. Absolute and relative frequencies (percentages rounded to one decimal) of different lengths of sequences.

No. of interjections in sequence	Frequency	Relative frequency (%)
2	91	86.7
3	11	10.4
4	2	1.9
5	1	1

Table 12. The ten interjections most frequently attested in sequences, with absolute and relative frequencies (percentages rounded to one decimal).

Form	Function	Frequency	Relative frequency (%)
mm	phatic	42	18.7
mhm	phatic	32	14.2
ee	phatic	30	13.3
aha	phatic	13	5.8
ɛhɛɛ	phatic	12	5.3
ɛɛ	cognitive	7	3.1
yɛɛ	phatic	7	3.1
aa	cognitive	4	1.8
matraa	cognitive	4	1.8
mhḿ	phatic	4	1.8

3.2.3 Sequences

Of the 895 interjections that were coded, 25.4% occurs as part of a sequence of two or more interjections, while the other 74.6% did not. These sequences vary in length, ranging from two to as much as five interjections in a row. The distribution of these sequence lengths is shown in Table 11. It can be seen that most sequences are only two interjections long, and sequences of four or five are rare, with only 2 and 1 occurrences, respectively. A closer look at these sequences reveals that they contain repetitions of interjections, as in the example in (29).

(29) 1 A: *bɛ* *story-ɛ* *bia-pɛ* *kóŋ*
C$_{1P}$ story-DEF 1P.SBJ.POT-be.good at.all
'The story will be good.'
2 B: *ee* *oke* *oke* *oke*
INTJ INTJ INTJ INTJ
'Yes, OK, OK, OK.'
3 A: *mhm*
INTJ
'Mhm.' (famprob_110316_MM-AlA)

Table 12 shows the interjections that most frequently occur in sequences. It can be observed that the most of them have phatic functions, with only three cognitive interjections. Statistically, however, there is no significant relationship between the functions of interjections and their sequential positions, $X^2(12) = 6.28$, $p = .901$. For first, second and third sequential position, the three most frequent interjections are the same, i.e., the phatic uses of *mm*, *mhm and ee* (in varying orders).

The variable 'switch' codes whether the interjections in sequences are uttered by the same speaker, or if there is alternation between speakers. The great majority of sequences (76.7%) switch between different speakers. This can either mean that every interjection in the sequence is uttered by another speaker, or that there are two speakers who alternate turns, as in (30) (repeated from (10)).

(30) 1 A: *a-sa=yɛ* *kị̀-kpafụ́-yɛ*
C-hit=C1S.OBJ C4S-fist-DEF
'He hit her with the fist.'
2 B: *mhm*
INTJ
'Mhm.'
3 A: *aha*
INTJ
'Aha.' (famprob_110316_MM-AlA)

In 16.7% of the sequences, all interjections in the sequence were produced by the same speaker. Some but not all of these are repetitions of the same interjection form, like *o, o, o* (conv-funeral_100528_9) or *ɛɛ*, *ɛɛ* (conv-greenhouse_110408_SO-ViA_2). In the other 6.6% of the sequences, the first part of the sequence consists of consecutive interjections by the same speaker, followed by a switch of speakers, as is the case in (29).

3.2.4 Gestures

How and when interjections combine with gestures in the broad sense (i.e., made with body parts like the hands or the head, but also with the face) is investigated with the variables 'gesture' and 'facial expression', which are also referred to as bodily and facial gestures, respectively. The first thing to note is that it was not always possible to determine whether an interjection occurred with a bodily or facial gesture: for the bodily gestures, I was unable to tell in 8% of the cases, and for the facial expressions in 9.6% of the cases. Reasons for this were either that the speaker was not in the frame, their face or a part of their body was hidden, or the quality of the video was too low. These cases are excluded from the rest of the descriptions below.

Table 13. Absolute and relative frequencies (percentages rounded to one decimal) of bodily and facial gestures occurring with interjections.

Gesture type	Frequency	Relative frequency (%)
None	669	74.9
Body	206	23.1
Face	10	1.1
Both	8	0.9

As Table 13 shows, the majority (74.9%) of interjections were not accompanied by any type of bodily or facial gesture. 23.1% occurred with a gesture made with the body, without a marked facial expression. Facial gestures are rare in the corpus; only a small part of the interjections (1.1%) is accompanied by only a marked facial expression, and 0.9% occurs with both a bodily and facial gesture.

Pearson's chi-squared test of independence shows there is systematicity in which functional types of interjections do or do not occur with gestures, $X^2(9) = 56.01$, $p < .001$. The mosaic plot with residuals in Figure 14 shows where this relationship is significant. Phatic interjections are more likely to occur with gestures made with the body (i.e., without facial expressions) than other functions, whereas cognitive interjections are the least likely to occur with bodily gestures. In fact, cognitive interjections are most likely to occur with no gesture at all ('none'). There is also a relationship between emotive interjections and facial gestures: emotive interjections are more likely to occur with facial gestures (whether combined with a bodily gesture or not) than other functions.

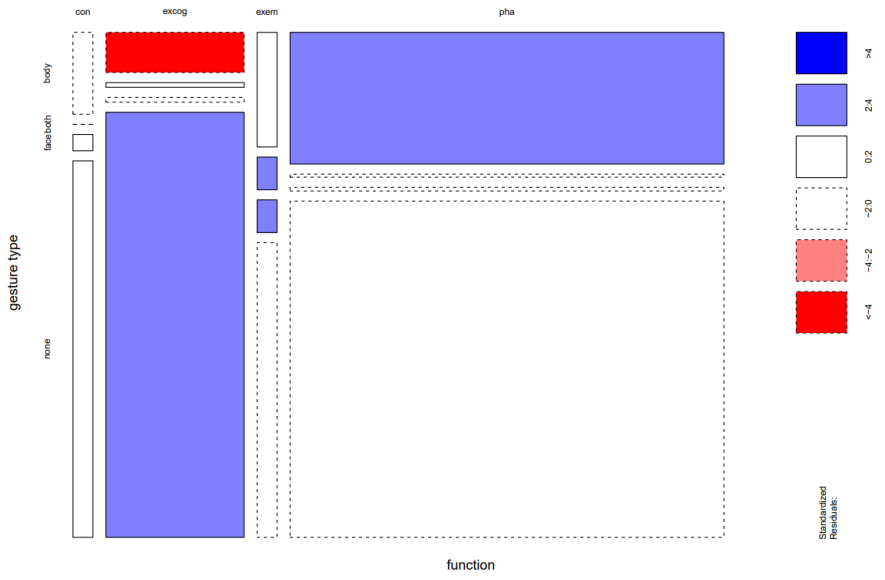

Figure 14. Mosaic plot of the relationship between gesture types and interjection functions, with colors referring to residuals. Blue means there are significantly more observations of this combination of position and function than would be expected if the distribution were independent; red means there are significantly fewer observations than expected with an independent distribution.

The most frequent gestures made with the body are head nods; the interjections most frequently accompanied by these head nods are the phatic *mm*, *ee*, *mhm* and *aha*, which all have an affirmative or acknowledging meaning. Around 36% of the instances of these interjections occur with a head nodding gesture. It is worth noting that of the 157 nodding gestures attested, 84% are very short, consisting of only one nod instead of continuous nodding. Other head gestures in the data include shaking the head (occurring with negative responses) or moving it downwards (e.g. *ówaa* expressing surprise or amazement).

Most of the 32 attested hand gestures can be classified as beats, according to the definitions in McNeill (1992: 80). They are made wherever the hands are located at that point, they do not occupy any particular gesture space, and their paths are simple and short, mainly supporting the prosodic structure of the spoken interjection. Some gestures more referential meanings: the gesture of repeatedly tapping at the mouth with a flat palm, co-occurring with interjection *wowowo* (in *rice3*), could be classified as a metaphoric gesture (mostly since it seems to be neither iconic nor deictic), although what this metaphorically represents is unclear. No iconic gestures have been attested.

There are some deictic gestures that co-occur with interjections, all of which are produced with a pointed index finger. For example, when a finger-pointing gesture co-occurs with *ɛɛ* (in *funeral8*), the speaker is pointing to an abstract referent while still thinking about the corresponding word (*iliye* 'that one'), which is then produced directly after *ɛɛ*. Other instances of deictic finger-pointing do refer to concrete entities, e.g., the pictures lying on the table (*famprob*), or a basket of dirty glasses in front of the speaker (*rice2*), the latter of which was produced with the left hand (as opposed to most other hand gestures, which are with the right hand). Another use of the pointed index finger in hand gestures is negation, done by moving the finger to the left and right; this gesture co-occurs with the interjection *mm* in a negating function, as well as shaking the head (*rice2*).

Facial gestures are relatively infrequent in this corpus. Only 18 interjections carry a marked facial expression or facial gesture, with is only 2% of the total number of coded interjections (excluding the ones where I was unable to tell). Most of these facial gestures are made with the eyebrows. Specifically, the eyebrows are either raised or lowered into a frown. Lowering the eyebrows is done, for example, with repair initiator *aa*. Raised eyebrows are attested with, for example, the phatic (affirmative) interjection *yɛɛ*, meaning something like 'I want to know more about this' (cf. Wierzbicka 1999: 205), or with the emotive *tsyalélé* when the speaker is positively surprised by what is happening. When *mm* occurs with a marked facial expression, it can have a positive/affirmative or a negating meaning, and it is almost always accompanied by a head gesture as well (i.e., shaking or nodding the head).

Some facial expressions involve pressing the lips together, sometimes also in combination with lowered eyebrows. In the two instances where this combination was found, it co-occurs with *mm,* which in both cases expresses acknowledgement of a bad situation: one situation being that the speaker was deceived by somebody, the other being that the speaker's child has caught a bad cold.

3.3 Discussion

The goal of this coding analysis is to map how Avatime interjections behave in interactional discourse, specifically regarding their function, position within the turn, sequential position and occurrence with gestures.

The great majority of the coded interjections are phatic in function – the most frequent phatic interjections being *mm*, *mhm* and *ee* – while only a minor part of the interjections is emotive or conative. This can be partly explained by the type of corpus used, in which the interjections come from spontaneous conversations. While narratives, for example, would contain many 'performative' interjections that refer to feelings and thoughts, conversations like the ones in this corpus contain mostly question-answer pairs and other types of interaction between participants. It is therefore not surprising that phatic interjections play a larger role in this kind of discourse context.

However, even within the genre of 'spontaneous conversation', a division can be made between types of conversations or discourse settings, resulting in different ways of using interjections. This is part of the general idea that speakers will use different expressions to reach different discourse goals. In the current study, this is exemplified by the distinct behavior of the file *famprob*, where the number of interjections is greater than in the other files due to its length, but in which the proportions of interjections are also different: it contains many more phatic interjections than other functions compared to the other files. A possible explanation for is that the conversation in question is relatively unique in the corpus, as it is a conversation revolving around a collaborative task the speakers are performing. In practice, this means that often, one speaker is sharing their ideas or explaining part of the task to the other, while the other speaker (dis)agrees or backchannels with short, interjectional forms, resulting in a large number of phatic interjections. Further research including more of these collaborative types of conversations could reveal whether this is part of a pattern.

Regarding the position of interjections in the turn, most interjections in the coded corpus occur as isolated, free-standing elements (i.e., as the only element in a speaker's turn) or turn-initially (i.e., followed by co-text in the same turn). This is in line with expectations based on literature on other languages (e.g., Andrason & Matutu 2019). However, they usually consider utterance position instead of turn position. A turn can (but does not have to) consist of multiple utterances, divided by a longer pause or intonational patterns. The type of phonological/phonetic analysis required to determine utterance boundaries was outside the scope of the current study. Therefore, for Avatime interjections it is still unclear whether the elements that occur with interjections in the same turn are also part of the same utterance. This is relevant, among other things, for typological comparison. In the related Tafi language, for example, interjections that form a co-utterance with other elements only occur in initial or internal position (Bobuafor 2013). While not the most frequent turn position, Avatime interjections do occur in turn-final position; if they also occur utterance-finally, it would mean Avatime interjections are relatively flexible in position.

Some interjections are almost always found in the same position (e.g., *mm* in isolation or *o* in initial position), which is in line with Poggi's (2009) claim that position is often dependent on meaning. However, many other attested interjections either vary greatly in their positions, or are not frequent enough to claim anything about it. A broader link to function is easier to substantiate: for example, phatic interjections are mostly isolated, while cognitive ones are mostly turn-initial or turn-internal, and conative ones turn-final.

Sequences of interjections are not uncommon in Avatime conversations, with around a quarter of the attested interjections occurring in such a sequence. This includes sequences with alternating speakers as well as within-speaker sequences, the former being the most common type. Most sequences are two or three interjections long, and the most common forms in these sequences are *mm*, *mhm* and *ee*, all with phatic functions. Statistically there is no relationship between the functional types of interjections and whether they occur in sequences (and in which position). Phatic interjections are very frequent in sequences, but so are they in the entire dataset. Same-speaker sequences seem to vary a lot in the interjections they contain, but they often include repetitions of the same form. Different-speaker sequences typically contain short (often phatic) forms with similar (affirmative/acknowledging) meanings.

Most of the gestures co-occurring with interjections involve nodding the head, together with a backchanneling or affirmative interjection. The hand gestures that occur are mostly rhythmic or beat-like. The deictic gestures that are attested are only produced by pointing the index finger, and only to abstract or inanimate objects, not to people. A possible reason for this is that pointing to people with the index finger has negative connotations, as is also the case in other languages, such as Yoruba (Orie 2009). Notable is that, even though left-hand pointing is generally considered taboo in Ghana (Kita & Essegbey 2001), it was attested in this dataset, albeit in quite a negative context (i.e., telling someone they did not wash the glasses as they should have). Furthermore, it is likely that there are more ways to produce deictic gestures than attested in this corpus, for example with the whole hand, the head or the eyes (as is also the case in Yoruba (Orie 2009)). This will be left to future research.

The interjections that occur with a marked facial expression are relatively often emotive ones, although they can also be phatic, like *mm or yɛɛ*. There is not much variation in the types of facial expressions occurring with interjections. When there is a noticeable (change in) expression, it is nearly always done by raising or lowering the eyebrows, while the rest of the face remains relatively neutral. It should be noted, though, that there might be more facial expressions present in the coded conversations than identified in this study. It is possible that some expressions were too subtle to identify in the video data, for example because the person in question was too far away from the camera, or because the quality of the video did not allow for it. This could be the case for certain gazes or other expressions in the eyes, which play a key role in pointing (Orie 2009) and encoding emotional meaning (e.g., Scherer et al. 2011). Numerous West-African languages make use of visual gestures, e.g., the 'cut-eye' expression of disapproval or displeasure (Rickford & Rickford 1976), which are possibly present in Avatime as well.

This study only includes gestures produced in combination with spoken interjections, but gestures can also be interjectional by themselves (e.g., Eastman 1992). Future research on the combination of gestures and interjections could therefore also include gestures occurring without speech. It would also be interesting to see how facial expressions are used outside of the domain of interjections. Are the faces of Avatime speakers also this non-expressive in other expressive or depictive domains, such as when using ideophones? Or could it be an effect of the presence of a camera, and would it be different if one were to observe facial expressions first-hand in the field?

Finally, some notes on the coding methodology are in order. Generally, in coding studies, it is preferable to have multiple coders, or a second coder who checks sampled parts of the coding, in order to ensure reliability by means of intercoder agreement. Due to the limited scope of this thesis, I was the only coder of the data. Thus, the reliability could have been better. The coding scheme, as included in Appendix I, was designed to be language-agnostic and thus also replicable for studies of other languages. This can facilitate more systematic investigations of interjections in interactional discourse for languages around the world, using the same parameters and definitions.

4 General discussion

While §3.3 contains a discussion of the coding analysis specifically, this chapter presents a general discussion of the study of Avatime interjections in interactional discourse. §4.1 answers the research questions that were outlined in §1.3.2; §4.2 describes the role of Avatime interjections in a wider areal perspective; finally, §4.3 presents a reflection on the methodological practices used in this study.

4.1 Research questions

The first research question (*Which interjections do Avatime speakers use in interactional discourse, and what can be said about their meaning?*) is answered by means of the inventory in Section 2. Most of the interjections that were identified in the collection of Avatime interactions are primary interjections (i.e., forms that are not used in other parts of speech in the language). They are mostly monosyllabic forms, sometimes only varying in tonal contours to express a different meaning. Most of their forms are not phonologically anomalous but have phonemes that occur regularly in the languages, such as [a e ɛ o h m]. The only exceptions are the clicks, which are not phonemic in Avatime; and the use of tones on consonant [m] while tones are normally reserved for vowels. Sometimes, the same form with the same tone can also have different functions. Further research is needed to show how exactly these meanings are related, and whether the forms are polysemic or homonymic.

It is quite common that one interjection form occurs in different contexts and with different functions. Given that interjections have their own internal meaning (Wierzbicka 1992), this raises the question of whether these forms are polysemous or homonymous, depending on how much they are related. As this thesis is mainly about the use of interjections in discourse and less about their internal semantics, the latter has not been analyzed extensively. A closer look at the meanings of interjections is still needed for a fuller understanding of Avatime interjections. For that, it is not enough to observe them in the corpus; one would need to consult native speakers about when a certain form can or cannot be used to get a more detailed view of their meaning.

With the second research question (*What are the main functions of Avatime interjections in interactional discourse?*) it became clear that most interjections found in Avatime conversations are phatic in function, i.e., expressing an attitude towards the ongoing discourse. This is in line with my expectation that phatic interjections would play a major part in spontaneous interactions (cf. Dingemanse 2021). Some of the most frequently occurring interjections have a cognitive function (expressing the thoughts or mental state of the speaker), for example *ɛɛ*, which expresses hesitation or delay. Emotive interjections, which are often described as the most 'prototypical' ones (Nübling 2004; Stange 2016) are notably infrequent in the corpus.

Regarding the third research question (*In which positions do the interjections occur, and which patterns can be found there?*), most of the attested interjections constitute a turn by themselves –

which fits the definition of interjections being able to form a non-elliptical utterance – or they occur at the start of a turn, which is also a cross-linguistically common position (e.g., Drescher 1997; Norrick 2009; Ollennu 2017; Andrason & Matutu 2019). The positions of the interjections are partly dependent on their function: phatic interjections are typically isolated, cognitive typically turn-initial and turn-internal, and conative ones turn-final.

A quarter of the interjections occur in direct adjacency of one or more other interjections. The sequences that are formed in this way are sometimes produced by one speaker only (including repetitions of the same form), but most often by alternating speakers. Most frequent in first, second and third sequential position are the phatic *mm*, *ee* and *mhm.* While these are all mainly phatic, there is no clear connection between the functional types of interjections and when or where they occur in sequences. A frequently occurring kind of sequences goes as follows: speaker A responds to something that was said in the prior discourse; speaker B responds to that with an acknowledgement that they know speaker A has received the message; then, speaker A closes the sequence by responding to this with another acknowledging interjection. Sequences with alternating speakers thus contain mainly 'reacting' signals, rather than 'acting' (cf. Enfield & Sidnell 2015).

For the final research question (*Which kinds of gestures are produced together with Avatime interjections?*), I looked at co-speech gestures produced with the body (mostly the head and hands) and with the face. Gestures produced with the head are mostly single nods, occurring together with interjections that have agreement or backchanneling functions. These nods are notably short and beat-like; it is a clear example of having rhythmic as well as pragmatically meaningful components. This fits Shattuck-Hufnagel and Prieto's (2019) argument that gestures should be analyzed along several dimensions, including rhythmicity and referentiality.

The gestures made with the hands are mostly deictic or beat-like. Iconic gestures, which occur frequently with Avatime serial verb constructions (Defina 2016b), were not attested with interjections. This is not unexpected, as SVCs express various of actions that can be mimicked, while with interjections this is not the case; an iconic gesture with an interjection would have to depict something else that was discussed before or after the interjection, but this would violate the preference for close temporal alignment of gestures and their spoken referents (Defina 2016b: 895). There seem to be some metaphoric gestures, but it will be left to future research what exactly their Bases and Referents are.

Facial gestures, defined as noticeable changes in facial expressions that align with spoken interjections, were rarely found to occur with interjections in the corpus. The few facial gestures that were attested almost always involved the eyebrows, either raised (in surprise, or in response to previously unknown information) or narrowed (almost always in combination with *mm* and a head nod or shake, signaling affirmative or negative meaning). As facial gestures are closely associated with the expression of emotions (e.g., Ekman 1973; Wierzbicka 2000), they might be more frequent in a collection containing more emotive interjections, which were already highly infrequent in the current corpus. Future research can work towards collecting video data of conversations that show

speakers' faces more clearly, allowing the researcher to capture certain gazes or subtle facial gestures that presently remain unidentified.

4.2 Avatime interjections in cross-linguistic perspective

While interjections are a rich source for diversity in forms, frequencies and meanings across languages, there are also crosslinguistic tendencies (Dingemanse 2021: 14). An example is the cross-linguistic similarity of repair initiators, which in a survey of 31 languages were all found to be similar to the form *a?*. The proposed reason for this is that it is a central vowel, which requires minimal articulatory effort and time to produce, combined with questioning intonation of the language in question (which in many languages is rising, but falling in some languages, such as Icelandic) (Dingemanse et al. 2013). Avatime has the repair initiator *ǎ*, the form of which fits this typological pattern. It does not clearly conform to the Avatime question intonation. In Avatime, the content question word or question phrase gets an extra high tone on the final syllable, and is followed by a low boundary tone. It is not clear if this is also the case with questions consisting of only a question word, like *ǎ*, which has a rising tone and thus seems to act differently from longer content questions. Another possibly universal pattern, which has not been systematically investigated yet, is the use of nasal vocalizations for continuers or backchanneling interjections: this type of vocalization requires minimal effort in terms of articulation, and can still be modified with prosodic contours (Dingemanse 2021: 15) The Avatime *mm* and *mhm* also conform to this pattern.

Looking at the inventory presented in Section 2, many of the interjections in Avatime are also found in related and neighboring languages, such as Ewe, Tafi and Logba. Examples of Avatime interjections that are also used in these languages are *ee*, *yoo*, *o*, *óho*, *áo* and *tsyalélé* (Ameka 1991; Dorvlo 2008; Bobuafor 2013). There is some contact of Avatime speakers with Tafi (Bobuafor 2013: 7) and Logba (Defina in press: 31). However, Avatime people have the most intensive contact with Ewe, as it is the regional lingua franca, and Avatime contains numerous loanwords from Ewe. It is therefore likely that the borrowed interjections were borrowed from the more widespread Ewe into smaller languages including Avatime, Tafi and Logba.

It is often claimed that nouns are more easily borrowed than verbs, they need less grammatical adaptation compared to verbs (Haspelmath 2009: 35). Because interjections are not syntactically integrated into the sentence, they need even less grammatical adaptation and can be borrowed as 'chunks'. Bobuafor (2013: 359) describes some Tafi interjections as 'areal' interjections, although she does not mention which ones exactly, and this also seems to be the case for at least some Avatime interjections included in this study. This areal convergence is not unique to interjections. Various speech formulae in Ewe are also widespread in southern Ghana. While formulae are often said to be culture-specific, they can thus also be described as 'areal features of a cultural circle as opposed to specific cultures' (Ameka 1991: 636).

Further research is needed to clarify which Avatime interjections belong to this group of areal interjections that flow easily across language boundaries, and which ones are more language-

specific. More work is also needed in order to know how far the areal interjections reach, and how this spread can be explained diachronically. Additionally, languages that are genetically and/or geographically close to Avatime have not been subject to systematic studies of interjections like the present study. While we know that many forms and meanings are similar, we know less about how they are used in interaction, e.g., in terms of frequency, (sequential) position, or the use of gestures. The interjections of languages of southern Ghana would be much more comparable if more were known about the use of interjections, for which the coding analysis in the present study could be used as a starting point.

4.3 Methodological reflections

The present study is based on a collection of previously recorded data; therefore it is, in a way, corpus-based. The main reason for opting for this method is that the data have already been collected, transcribed and (for the most part) translated. This makes the research quite efficient. On top of that, since it was currently impossible to personally collect data in the field,[9] working with existing data was the only way to still conduct research on Avatime with ample video and audio data, selecting the most relevant discourse styles to use for my research.

However, this method also has its drawbacks. Firstly, the data were recorded between 2010 and 2013, meaning that they are now about 10 years old. At that time, younger speakers were already changing the language in various respects. For example, they no longer make a distinction between alveolar and palatal affricates (Putten 2014: 28), they hardly use serial verb markers anymore (Putten 2014: 65), and they often do not know the Avatime numerals above five, using English numerals instead (Defina 2016: 211). It is possible that younger speakers also use different interjections, for example newly grammaticalized secondary interjections, or more interjections borrowed from English. This means that the existing collection might not be fully representative of Avatime as it is spoken today.

A second disadvantage is that, as a researcher, you are limited to what occurs in this particular corpus, which is only a small part of the language. As such, caution is required when making generalizations. Also, you are not able to ask the speakers follow-up questions, for example to explain what was meant by something they said in a recording. Although I did not collect and process the speech data myself, I personally have the advantage of having conducted fieldwork in the Avatime area in 2019.[10] However, if a researcher uses only existing recordings without having been to the place the language is spoken and perceiving the language in real life, it is likely that they miss some insights in the daily use of the language. It can be more difficult to interpret certain expressions when one's knowledge is only based on the way the video and audio turned out, without any context of what was happening outside the view of the camera.

[9] Due to time constraints as well as the COVID-19 pandemic.

[10] The data I collected there do not contain any spontaneous conversations between Avatime speakers, as the focus was on the categorisation of body part terms, with various tasks performed individually. Therefore, I did not use these data in the present study.

This leads me to a general risk of working with recorded speech, i.e., the possible effect of camera presence on speech production. Of course the context was kept as naturalistic as possible: speakers in the collection usually sit outside in their homes, where most interaction takes place, and the researcher is always present during the whole conversation. This does not change the fact, however, that there is still always a camera and microphone pointed at them. This could turn their speech into more socially acceptable speech, and could also impact the use of gestures, which could occur less when people feel like they are being watched.

For future research, I would therefore recommend to combine existing data with more fieldwork focused on the topic of interjections, for more detailed information about their meanings and uses. During this fieldwork, the researcher will also be able to observe the use of interjections in daily situations that are not caught on camera, about which they can subsequently ask their consultants in the field for elaboration. It would also be good to collect and analyze speech data in other Avatime villages to have a more accurate representation of the language and to know whether there is dialectal variation in the use of interjections.

Nonetheless, the current method has enabled me to make a contribution to the field of Avatime research, interjections, and interactional linguistics. This study contributes to the linguistic knowledge of Avatime, since little was known about the class of interjections in this language. The Avatime interjections were analyzed not in isolation, but from a sequential perspective, grounded in conversation and with attention to the contexts in which they are used. This sequential perspective is much needed in the study of interjections (e.g. Dingemanse 2021; Evans 1992), as conversation is the 'true home' of interjections (Dingemanse 2021: 4).

Aside from the fact that interjections are best studied in the context of interaction, it is also important to have a better understanding of interactional practices in typologically diverse languages. Applications of this knowledge of linguistic diversity in interaction, and interjections specifically, include but are not limited to second language learning strategies and the development of language technology such as conversational agents (Dingemanse & Liesenfeld Under review). The multimodal perspective employed in this study is also valuable, because even though speech, gestures and facial expressions are inextricably linked, there are few studies yet combining these perspectives. Finally, the coding scheme created in this study can ideally be applied to other languages, being optimized over time and used as a stepping stone for more typologically comparable research on interjections in interactional discourse.

5 Conclusion

Studying interjections as they naturally occur is best done in the context of interactional discourse. In the present study this is done for interjections in Avatime. The collection of conversations of Avatime speakers showed many interjections where especially vowels and nasals can have different intonational contours that decide their meaning in the context. A number of aspects of Avatime

interjections in the discourse were investigated, including their functions (mainly phatic), positions in the turn (mainly free-standing and turn-initial), sequences of interjections (mainly with two or three phatic forms), and co-occurring gestures made with the body (head nods, head shakes and pointing) and the face (highly infrequent). Knowledge of Avatime interjections and their properties is not only beneficial to studies of the language as a whole, but also to studies of (southeastern) Ghanaian languages, given the areal convergence of interjections. Finally, more systematic studies of interjections in discourse contexts are needed to identify cross-linguistic points of similarity and diversity, with the ultimate goal of better understanding human interaction around the world.

Bibliography

Aijmer, Karin. 2004. Interjections in a contrastive perspective. *Amsterdam Studies In The Theory And History Of Linguistic Science Series 4*, vol. 248, 99–120. Amsterdam/Philadelphia: John Benjamins.

Ameka, Felix K. 1991. Ewe: Its grammatical constructions and illocutionary devices. Australian National University Canberra.

Ameka, Felix K. 1992a. Interjections: The universal yet neglected part of speech. *Journal of pragmatics* 18(2–3). Elsevier, 101–118.

Ameka, Felix K. 1992b. The meaning of phatic and conative interjections. *Journal of pragmatics* 18(2–3). Elsevier, 245–271.

Ameka, Felix K. 2017. The Ghana-Togo Mountain languages: Introduction. *STUF-Language Typology and Universals* 70(2). De Gruyter, 239–244.

Ameka, Felix K. & Marina Terkourafi. 2019. What if…? Imagining non-Western perspectives on pragmatic theory and practice. *Journal of Pragmatics* 145. Elsevier, 72–82.

Amha, Azeb. 2013. Directives to Humans and to Domestic Animals: the Imperative and some Interjections in Zargulla. *Cushitic and Omotic Studies*. Rüdiger Köppe Verlag, 211–229.

Andrason, Alexander. 2021. Laughter interjections in Xhosa. *Studies in African Languages and Cultures*(55). Wydawnictwa Uniwersytetu Warszawskiego, 31–71.

Andrason, Alexander & Mawande Dlali. 2020. The (crucial yet neglected) category of interjections in Xhosa. *STUF-Language Typology and Universals* 73(2). De Gruyter, 159–217.

Andrason, Alexander, Anne-Maria Fehn & Admire Phiri. 2020. Interjections in Tjwao. *Bulletin of the School of Oriental and African Studies* 83(2). Cambridge University Press, 293–319.

Andrason, Alexander & Haile Matutu. 2019. The syntax of interjections in isiXhosa: A corpus-driven study. *Stellenbosch Papers in Linguistics PLUS* 2019(58). University of Stellenbosch, 1–16.

Arnold, Jeffrey B. 2021. ggthemes: Extra Themes, Scales and Geoms for 'ggplot2'. R package version 4.2.4. https://CRAN.R-project.org/package=ggthemes

Beach, Wayne A. & Anna K. Lindstrom. 1992. Conversational universals and comparative theory: Turning to Swedish and American acknowledgment tokens in interaction. *Communication Theory* 2(1). Oxford University Press, 24–49.

Bobuafor, Mercy. 2013. *A grammar of Tafi*. Leiden University.

Boersma, Paul & David Weenink. 2021. Praat: doing phonetics by computer [Computer program]. Version 6.1.53. http://www.praat.org/ (16 September, 2021).

Brazil, David. 1995. *A grammar of speech*. Oxford University Press, USA.

Bühler, Karl. 1934. *Sprachtheorie*. Vol. 2. Jena Fischer.

Buridant, Claude. 2006. L'interjection: jeux et enjeux. *Languages*(1). Armand Colin, 3–9.

Christaller, Johannes G. 1888. Die Volta-Sprachen-Gruppe. *Zeitschrift für afrikanische Sprachen* 1, 161–186.

Clark, Herbert H & Jean E Fox Tree. 2002. Using uh and um in spontaneous speaking. *Cognition* 84(1). Elsevier, 73–111.

Dakubu, Mary Esther Kropp. 2017. Sub-classifying the languages of the Lower Volta Valley: Towards redefining Kwa. *STUF-Language Typology and Universals* 70(2). De Gruyter, 283–301.

Defina, Rebecca. 2016a. Aspect and modality in Avatime. Leiden University.

Defina, Rebecca. 2016b. Do serial verb constructions describe single events? A study of co-speech gestures in Avatime. *Language*. JSTOR, 890–910.

Dingemanse, Mark. 2015. Other-initiated repair in Siwu. *Open Linguistics* 1(1). De Gruyter Open.

Dingemanse, Mark. 2021. Interjections (Oxford Handbook of Word Classes).

Dingemanse, Mark & Andreas Liesenfeld. Under review. From text to interaction: harnessing conversational corpora for humane and diversity-aware language technology.

Dingemanse, Mark, Francisco Torreira & N. J. Enfield. 2013. Is "Huh?" a universal word? Conversational infrastructure and the convergent evolution of linguistic items. *PloS one* 8(11). Public Library of Science San Francisco, USA.

Dorvlo, Kofi G. E. 2008. *A grammar of Logba (Ikpana)*. Leiden University.

Drescher, Martina. 1997. French interjections and their use in discourse. *The language of emotions*. Amsterdam–Philadelphia: John Benjamins, 233–246.

Eastman, Carol M. 1992. Swahili interjections: Blurring language-use/gesture-use boundaries. *Journal of Pragmatics* 18(2–3). Elsevier, 273–287.

Eberhard, David M., Gary F. Simons & Charles D. Fennig (Eds.). 2022). Ethnologue: Languages of the world. [Twenty-second edition]. Dallas: SIL International.

Ehlich, Konrad. 1986. *Interjektionen (Linguistische Arbeiten, Band 111)*. Tübingen: M. Niemeyer.

Ekman, Paul. 1973. Universal facial expressions in emotion. *Studia Psychologica* 15(2), 140–147.

Elliott, Eeva A & Arthur M Jacobs. 2013. Facial expressions, emotions, and sign languages. *Frontiers in psychology* 4. Frontiers Media SA, 115.

Enfield, Nick J. & Jack Sidnell. 2015. Language structure and social agency: Confirming polar questions in conversation. *Linguistics Vanguard* 1(1). De Gruyter, 131–143.

Evans, Nicholas. 1992. 'Wanjh! Bonj! Nja!': Sequential organization and social deixis in Mayali interjections. *Journal of Pragmatics* 18(2–3). Elsevier, 225–244.

Fulop, Sean & Richard Wright. 2020. Recording and Measuring Acoustic Attributes of Clicks. *Click Consonants*, 241–274. Brill.

Ghana Institute of Linguistics, Literacy and Bible Translation. 2019. Teach yourself to read and write Sideme: Sideme Transitional Primer.

Goddard, Cliff. 2014. Interjections and emotion (with special reference to "surprise" and "disgust"). *Emotion Review* 6(1). Sage Publications Sage UK: London, England, 53–63.

Goldin-Meadow, Susan & Diane Brentari. 2017. Gesture, sign, and language: The coming of age of sign language and gesture studies. *Behavioral and Brain Sciences* 40. Cambridge University Press.

Greenbaum, Sidney. 2000. *The Oxford reference grammar*. Oxford University Press.

Hartigan, John A. & Beat Kleiner. 1981. Mosaics for contingency tables. 268–273. Springer.

Haspelmath, Martin. 2009. Lexical borrowing: Concepts and issues. *Loanwords in the world's languages: A comparative handbook*, 35–54.

Heine, Bernd. 1968. *Die verbreitung und gliederung der Togorestsprachen*. . Vol. 1. D. Reimer.

Heinz, Bettina. 2003. Backchannel responses as strategic responses in bilingual speakers' conversations. *Journal of pragmatics* 35(7). Elsevier, 1113–1142.

Hill, Deborah. 1992. Imprecatory interjectional expressions: examples from Australian English. *Journal of Pragmatics* 18(2–3). Elsevier, 209–223.

Hofstede, Gerard. 1999. De interjectie als illocutionaire handeling. *Toegepaste taalwetenschap in artikelen* 61(1). John Benjamins, 127–135.

Hougaard, Tina T. 2019. Interjections, phonetics, and the body. *Scandinavian Studies in Language* 10(1), 98–109.

Jakobson, Roman. 1960. Linguistics and Poetics. In Thomas A. Sebeok (ed.), *Style in Language*, 350–377. Cambridge, MA: MIT Press.

Jespersen, Otto. 1922. *Language: Its nature, development and origin*. . Vol. 396. London: George Allen and Unwin.

Kendon, Adam. 2008. Some reflections on the relationship between 'gesture'and 'sign.' *Gesture* 8(3). John Benjamins, 348–366.

Kita, Sotaro & James Essegbey. 2001. Pointing left in Ghana: How a taboo on the use of the left hand influences gestural practice. *Gesture* 1(1). John Benjamins, 73–95.

Kockelman, Paul. 2003. The Meanings of Interjections in Q'eqchi'Maya. *Current Anthropology* 44(4).

Kryk, Barbara. 1992. The pragmatics of interjections: The case of Polish no. *Journal of Pragmatics* 18(2–3). Elsevier, 193–207.

Lahaussois, Aimée. 2016. Where have all the interjections gone. Nodus Publikationen.

Lahaussois, Aimée & Yvonne Treis. 2019. Ideophones and interjections. 466.

Lionnet, Florian. 2020. Paralinguistic use of clicks in Chad. *Click Consonants*, 422–437. Brill.

Major, Travis & Harold Torrence. 2021. "Say" Chains, Not "Say" Complementation. 283–293. Cascadilla Proceedings Project.

Manrique, Elizabeth. 2016. Other-initiated repair in argentine sign language. *Open Linguistics* 2(1). De Gruyter Open Access.

McNeill, David. 1985. So you think gestures are nonverbal? *Psychological review* 92(3). American Psychological Association, 350.

McNeill, David. 1992. *Hand and mind: What gestures reveal about thought*. University of Chicago Press.

McNeill, David. 2008. *Gesture and Thought*. University of Chicago Press.

Nordgren, Lars. 2015. *Greek interjections*. De Gruyter Mouton.

Norrick, Neal R. 2009. Interjections as pragmatic markers. *Journal of pragmatics* 41(5). Elsevier, 866–891.

Norrick, Neal R. 2011. Interjections. In G. Andersen & Karin Aijmer (eds.), *Pragmatics of society* (Handbook of Pragmatics 5), 243–292. De Gruyter Mouton.

Nübling, Damaris. 2004. Die prototypische Interjektion: Ein Definitionsvorschlag. *Journal of Pragmalics* 18, 193–207.

O'Connell, Daniel C & Sabine Kowal. 2005. Uh and um revisited: Are they interjections for signaling delay? *Journal of Psycholinguistic Research* 34(6). Springer, 555–576.

O'Connell, Daniel C., Sabine Kowal & Carie Ageneau. 2005. Interjections in interviews. *Journal of Psycholinguistic Research* 34(2). Springer, 153–171.

Ollennu, Y. A. A. 2017. The Position and Meaning of Interjections in Ga. *African Journal of Applied Research* 3(2), 15–27.

Orie, Ọlanikẹ Ọla. 2009. Pointing the Yoruba way. *Gesture* 9(2). John Benjamins, 237–261.

Painter, Colin. 1975. /m hm/,/! m! m/and some forms of yes and no in Gwa. *Anthropological Linguistics*. JSTOR, 19–23.

Poggi, Isabella. 2009. The language of interjections. *Multimodal signals: Cognitive and algorithmic issues*, 170–186. Springer.

Putten, Saskia van. 2014. Information structure in Avatime. Radboud University Nijmegen.

Putten, Saskia van. 2015a. Les 5: Nominale consituenten [Unpublished handout].

Putten, Saskia van. 2015b. Lessen 3 en 4: Fonologie [Unpublished handout].

Putten, Saskia van. 2016. Discourse functions of focus marking in Avatime. *Journal of African Languages and Linguistics* 37(1). De Gruyter, 91–130.

Putten, Saskia van. 2017. Motion in serializing languages revisited: The case of Avatime. *STUF-Language Typology and Universals* 70(2). De Gruyter, 303–329.

Putten, Saskia van. 2020. Perception verbs and the conceptualization of the senses: The case of Avatime. *Linguistics* 58(2). De Gruyter, 1–38.

Quirk, Randolph, Sidney Greenbaum, Geoffrey N. Leech & Jan Svartvik. 1972. *A grammar of contemporary English*. Longman London.

R Core Team. 2021. R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. https://www.R-project.org/

Rickford, John. R. & Angela E. Rickford. 1976. Cut-eye and suck-teeth: African words and gestures in New World guise. *The Journal of American Folklore* 89(353), 294-309.

San Roque, Lila, Lauren Gawne, Darja Hoenigman, Julia Miller, Stef Spronck, Alan Rumsey, Alice Carroll & Nicholas Evans. 2012. Getting the story straight: Language fieldwork using a narrative problem-solving task.

Schegloff, Emanuel A. 2007. *Sequence organization in interaction: A primer in conversation analysis I.* . Vol. 1. Cambridge university press.

Schelfhout, Carla, Peter-Arno Coppen, Nelleke Oostdijk & Frans van der Slik. 2005. Interjections in Dutch: a corpus-based approach. *Neerlandistiek.nl* 5.

Scherer, Klaus R., Elizabeth Clark-Polner & Marcello Mortillaro. 2011. In the eye of the beholder? Universality and cultural specificity in the expression and perception of emotion. *International Journal of Psychology* 46(6), 401-435.

Schuh, Russell G. 1995. Avatime noun classes and concord. *Studies in African Linguistics* 24(2), 123–150.

Shattuck-Hufnagel, Stefanie & Pilar Prieto. 2019. Dimensionalizing co-speech gestures. vol. 5.

SIL International (2019). Field Linguist's Toolbox (Version 1.6.4). http://www.fieldlinguiststoolbox.org/?i=1

Skedsmo, Kristian. 2020. Other-initiations of repair in Norwegian Sign Language. Københavns Universitet.

Stange, Ulrike. 2016. *Emotive interjections in British English: A corpus-based study on variation in acquisition, function and usage*. . Vol. 75. John Benjamins Publishing Company.

Stivers, Tanya. 2019. How we manage social relationships through answers to questions: The case of interjections. *Discourse Processes* 56(3). Taylor & Francis, 191–209.

Stivers, Tanya, Nick J. Enfield & Stephen C. Levinson. 2010. Question-response sequences in conversation across ten languages: an introduction. *Journal of Pragmatics* 42. North-Holland, 2615–2619.

Theunissen, Sam E. M. 2021. Waarom woorden in klassen passen: Semantiek in het nominale classificatiesysteem van het Avatime. *RU:ts Journal of Linguistics.*

Tottie, Gunnel. 1991. *Negation in English speech and writing: A study in variation*. Vol. 4. Academic Press.

Unuabonah, Foluke O. & Florence O. Daniel. 2020. Haba! Bilingual interjections in Nigerian English: A corpus-based study. *Journal of Pragmatics* 163. Elsevier, 66–77.

Wickham, Hadley. 2016. ggplot2: Elegant Graphics for Data Analysis. Springer-Verlag New York.

Wickham, Hadley, Romain François, Lionel Henry & Kirill Müller. 2021. dplyr: A Grammar of Data Manipulation. R package version 1.0.7. https://CRAN.R-project.org/package=dplyr

Wierzbicka, Anna. 1991. *Cross-cultural pragmatics: The semantics of human interaction*. Berlin: Mouton De Gruyter.

Wierzbicka, Anna. 1992. The semantics of interjection. *Journal of pragmatics* 18(2–3). Elsevier, 159–192.

Wierzbicka, Anna. 1999. *Emotions across languages and cultures: Diversity and universals*. Cambridge university press.

Wierzbicka, Anna. 2000. The semantics of human facial expressions. *Pragmatics & cognition* 8(1). John Benjamins, 147–183.

Wilkins, David P. 1992. Interjections as deictics. *Journal of Pragmatics* 18(2–3). Elsevier, 119–158.

Wittenburg, Peter, Hennie Brugman, Albert Russel, Alex Klassmann & Han Sloetjes. 2006. ELAN: a professional framework for multimodality research. In Proceedings of LREC 2006, fifth international conference on language resources and evaluation, 1556–1559.

Appendix: Coding scheme

The goal of this coding analysis is to understand how interjections are used in spontaneous discourse. This is analyzed by means of a number of variables; each instance of an interjection is coded with values according to these variables.

This coding scheme describes the variables included in the coding study and which values they can take. First, some metadata are coded, e.g., in which file and line the interjection occurs, by which speaker it is uttered, and what form the interjection has.

File. In which file does the interjection occur?
Line. In which line does it occur?
Speaker. By which speaker is it uttered?
Form. What is the form of the interjection?

Function. Does the interjection have an expressive (emotive/cognitive), phatic, or conative function? If there are multiple possible functions, code what seems to be the main function as seen from the speaker's perspective.

- Possible values: emotive, cognitive, conative, phatic

Position. This variable is about the position of the interjection within the speaker's turn. Is it the only element in the turn ('isolated'), or is it adjacent to other utterances in the same turn – in which case, is it turn-initial, final or internal? In case of quoted speech, the position is determined within the quoted part. So for example in *she said 'oh'*, the interjection *oh* will get the value 'isolated' and not 'final', as it is the only element in the quoted speech.

- Possible values: isolated, initial, internal, final

Sequence. Is the interjection part of a sequence of at least two interjections, i.e., is it directly followed and/or preceded by another interjection? If it is not, code it as 'no'. If it is the case, which position in the sequence does it occupy (first, second, third, etc.). When an interjection form is repeated (with enough reason to count them as separate forms, instead of one reduplicated form), it is also counted as a sequence.

- Possible values: no, 1, 2, 3 etc.

Switch. Is the sequence of interjections by the same speaker or a different speaker? When the whole sequence is uttered by the same speaker, it is coded as 'ss'. When there are two or more alternating speakers, it is 'ds'. When the first part of the sequence is by the same speaker, after which there is a speaker switch, it is 'ss/ds' (or vice versa).

- All by the same speaker (ss), alternating speaker every interjection (ds), or a combination (ss/ds, ds/ss)

Gestures. Is the interjection is accompanied by a co-speech gesture? The value is 'yes' when a gesture (made with hands, head or other parts of the body) at least partly aligns with the interjection. The value is 'no' when there no gesture, or there is a continuous gesture (e.g., referring to the whole utterance) that is already going on before and/or continued after the interjection is uttered. If the speaker is not visible in the video, the value is 'can't tell'.

- Possible values: yes, no, can't tell

Facial expression. Is the interjection is accompanied by a distinct facial expression? The value is 'yes' when there is noticeable facial action going on around the interjection. This can mean the transition of a still expression to a marked expression; or the change from one marked facial expression to another by moving certain parts of the face, such as the eyebrows or the mouth. When there is no change in facial action around the utterance of the interjection compared to the preceding and following speech, the value is 'no'. If the face of the speaker is not visible in the video, the value is 'can't tell'.

- Possible values: yes, no, can't tell