

PARSING PARTICLES IN WA'IKHANA

ANALISANDO PARTÍCULAS EM WA'IKHANA

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ABSTRACT

This article analyzes the use of several response particles in face-to-face interaction in Wa'ikhana, an East Tukano language of northwestern Amazonia. Adopting a Conversation Analysis approach, we explore details of each particle, considering their prosodic shapes, the action contexts in which they occur, and their sequential positioning, all crucial to understanding their meanings in interaction. Our analysis shows that Wa'ikhana response particles exhibit both universal and language-particular properties, thus demonstrating the contributions of data from lesser-studied languages to research on language in social interaction, and the value of an interactional approach in the study of under-described, and often endangered, indigenous languages.

KEYWORDS: Amazonian languages, Wa'ikhana (Piratapuyo), conversation analysis, particles, continuer.

RESUMO

Este artigo analisa o uso de um conjunto de partículas responsivas em interação cotidiana em Wa'ikhana, língua da família Tukano Oriental, falada no noroeste amazônico. Adotando a abordagem da Análise de Conversação, exploramos detalhes de cada partícula, considerando sua forma prosódica, o contexto de ação em que ocorre e sua posição sequencial, todos cruciais para o entendimento do seu significado em interação. Nossa análise mostra que partículas responsivas em Wa'ikhana exibem propriedades universais e próprias, demonstrando a contribuição de dados provindos de línguas pouco conhecidas à pesquisa sobre linguagem e interação social, bem como o valor da abordagem interacional no estudo de línguas indígenas pouco estudadas e muitas vezes ameaçadas.

PALAVRAS CHAVE: línguas amazônicas, língua wa'ikhana (piratapuyo), análise de conversação, partículas, continuadores.

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1. Introduction

This paper explores uses of the *mm* particle (with variants *mMm/ũũ*) in conversation in Wa'ikhana, an East Tukano language spoken in northwestern Amazonia. In so doing, it raises methodological and theoretical questions for the study of particles in conversation more generally, but particularly in endangered and un(der)-described languages. We adopt the methodology of Conversation Analysis (CA), an approach to the study of language use in everyday interaction that is particularly well-suited to the analysis of particles in conversation. We build on previous CA studies of particles in other languages (e.g. MORI 2006, HERITAGE 1984, GARDNER 1997, SORJONEN 2001, HERITAGE and SORJONEN 2018) and point to directions for future cross-linguistic research. Rather than try to identify the core meaning of any one particle, we instead focus on the **action** each individual token accomplishes in its sequential context and consider its effects on immediately subsequent talk. Since there is limited description of Wa'ikhana, and no previous work on conversation in Wa'ikhana or any other closely related language, our account is necessarily preliminary. Nevertheless, we can identify some recurrent uses of the particles in question, which we survey here (including *acknowledgement, agreement, confirming, and incipient speakership*). Finally, we call attention to the role of prosody in the use of these particles and their contribution to interaction as it unfolds. We find that the prosodic delivery of *mm* particles varies along the dimensions of length, volume, and pitch and we document this variation in the paper. Given the extent of this variation, we speculate on, but ultimately leave open, the question of whether each token is an instance of the “same” or “different” particles.

There are several striking characteristics of Wa'ikhana particles that contributed to inspiring the current study. The first is that these particles are extremely frequent in certain types of interaction. In one seven-minute recording, we counted a total of 209 *mm* tokens, a much higher frequency of particle use than is found in English, and which might even exceed their use in “continuer-intensive” languages like Japanese (CLANCY et al. 1996). Secondly, one prosodic variant occurs in sequential environments in which similar particles do not tend to occur in languages like English, namely in “third position”, after a prosodically similar particle from the recipient. Additionally, because the recently developed Wa'ikhana writing system does not include representations for these particles, it is not clear to us as analysts (and non-native-speakers of the language) which variations in phonetic/prosodic production ought to count as the same particle and which as different. For example, some instances of *mm* are

produced with a closed mouth (*mm*), while others are produced with an open mouth (*ɦɦ*) — what is the status of each? What about shorter and longer variants? Or those with rise-fall pitch contours versus those with level or slightly falling contours?

Cross-linguistic work on similar particles has found that there is a wide range in frequency across languages (CLANCY et al. 1996), with Japanese displaying the most prolific use of particles of any language known to date. While the original cross-linguistic work suggested that cultural differences underly this variation in frequency, later analyses from a Conversation Analytic perspective proposed that structural and turn-taking practices can account for substantial differences between certain languages, especially Japanese and English (TANAKA 2000). Though we offer some thoughts in this regard in section 6, in this article, we do not attempt to explain the frequency of particle usage in Wa'ikhana as compared to other languages. Instead, we focus on the essential first steps: documenting an initial set of phonetic and prosodic variants of the *mm* particle and describing the actions accomplished by each token in its sequential context.

As mentioned above, because our understanding of Wa'ikhana interaction is still in the beginning stages, the current study is per force exploratory and tentative. Nonetheless, we feel that the exploration is worthwhile, not only because Wa'ikhana is highly endangered and of a less common typological nature (polysynthetic), but also because there has been no previous description of the patterned use and functions of such particles in this or any other Amazonian language.

Extract 1 provides a sample of *mm* particles in a snippet of Wa'ikhana conversation among a group of people gathered around a communal breakfast table (Figure 1). It was this conversation that first alerted us to the frequency of these particles and piqued our interest in their contribution to the interactions we were observing. As people eat, DD (on the left in the green shirt) tells a story that he attributes to his mother-in-law, about a time she gave a large amount of food to a forest-dwelling Indian, after which the forest-dweller then became a frequent visitor at her house.⁴ In line 1, DD's story comes to a place of possible completion, making relevant some type of response from the listeners.

⁴ The Upper Rio Negro/Vaupés region is home to two broad groupings of indigenous peoples: “forest-dwelling” (primarily groups in the Naduhup language family, previously referred to as Makú) and “riverine” (speakers of East Tukano and Arawak languages). A prevailing cultural ideology promotes riverine peoples as socially dominant and characterizes forest peoples as untrustworthy, lazy, and generally less “civilized” (cf. EPPS and STENZEL 2013; EPPS 2018).

Figure 1. "Frequent visitor".



Source: produced by the authors.

Extract 1. "frequent visitor" [acpw_072; 00:00:41-00:00:47]⁵

1 DD: *sayedo, 'ʰsʰdo pi'awika'no'* niaye.⁶
 saa-yeé-do usú-do pi'á-wí'í-ka'ã-do ni-áye
 be.so-do-sg frequent-sg leave-return-DUR-SG say-REP.QUOTE
 That's why/So, "He kept coming back all the time" (she) said.

2 (0.4)

3 MC: [*sathiya, sa*]thiya.=
 saa-tahí-aya saa-tahí-aya
 be.so-be.thus-ASSERT.IPFV be.so-be.thus-ASSERT.IPFV
 That's right. That's right [Lit. just like that, just like that]

4 VD: --> [***m:Mm***]

5 DD: --> =***mMm***

6 MC? ↑***Mm.***

7 DD: --> ***mba.***

8 VD: >***hm***<.[identified as laugh particle by transcriber]

⁵ The recordings cited in this article are accessible at the Endangered Languages Archive (ELAR): <https://elar.soas.ac.uk/Collection/MPI1080602> where original videos, along with associated annotation and metadata, have been deposited. File names, e.g. "acpw_072", identify the source file for each extract, and time codes indicate location within the recording.

⁶ Conventions used in the examples and a list of gloss abbreviations are given at the end of the article.

In this short extract, less than 5 seconds total, we see several different *mm* particles⁷ produced after DD's turn in line 1. First, in line 4, VD (in the sleeveless red shirt), produces a lengthened *m::Mm* with an expressive fall-rise-fall pitch contour, in overlap with MC's (right, blue shirt and hat) enthusiastic response *sathiya, sathiya* 'that's right, that's right!' Immediately after this, in line 5, we see another particle, *mMm*, from DD, whose story had just come to possible completion in line 1. This pattern, in which speakers produce sequences of *mm* particles, strikes us as relatively frequent in conversational data in Wa'ikhana and is something we have also noted in overheard talk involving other Tukanooan languages spoken in the same region (see §6). Somewhat unexpectedly, in Extract 1 there is then an additional particle, $\uparrow mm$ (it is unclear whether this comes from VD, MC, or another person outside the screenshot), followed by the phonetically distinct *mba* with terminative (falling) prosody from DD, and then, one final, very short *hm* from VD in line 8.

While particles such as these have often been considered marginal in linguistics, and are certainly not a focus in descriptive grammatical studies, they are apparently universal and central to the organization of conversation, the most frequent and basic context of language use (ENFIELD 2017; HERITAGE and SORJONEN 2018; see further discussion in §3 and §4). They thus warrant much greater cross-linguistic study, to which we contribute with an exploratory analysis of freestanding particles in Wa'ikhana. We use the methodology of Conversation Analysis (CA), an approach that is uniquely suited to studying particles due to its emphasis on all language practices as tools for accomplishing actions in interaction. We begin with an overview of prior research on particles in CA (§2), followed by a description of the data on which the analysis is based (§3) and an outline of our methodological approach, rooted in Conversation Analysis (§4). In section 5, we explore the sequential locations and interactional functions of *mm* particles in Wa'ikhana and conclude in section 6 with a discussion of the theoretical import of these findings and implications for future research.

2. Prior research on particles in conversation

In the general linguistics literature, particles like Wa'ikhana *mm* and English *mm-hm* have been grouped with a range of other expressions and referred to generally as “back-channeling devices” (YNGVE 1970; DUNCAN and FISKE 1977; CLANCY et al. 1996),

⁷ We use *mm* as a general term for the set of particles with closed-mouth long [m] or its open-mouth counterpart with long central and nasal vowel, phonetically varying between [ɜ̃] and [ĩ/ũ̃], and accompanied by some kind of prosodic contour represented in the transcription. This allows us to avoid prematurely categorizing tokens of *mm*-like particles into distinct types while still exploring their variation and functions.

“phatic expressions” (MALINOWSKI 1923), “discourse particles” (SCHIFFRIN 1987), or “interjections” (AMEKA 1992). Each author makes different distinctions, however, and there is no strong consensus in linguistics regarding which terms to use for which phenomena. In Conversation Analysis, the term “particle” has recently gained prominence alongside a surge in research on such tokens in a variety of languages. In a recent text on Interactional Linguistics (COUPER-KUHLEN and SELTING 2018, p. 493), particles are defined as “independent one-word constructions” that lack syntactic integration. Particles can be stand-alone, constituting a turn in themselves (the case with most of the particles we examine), but also occur in turn-initial, turn-final, or turn-medial positions.

The term “particle” is also semantically neutral, in contrast to labels such as “back-channel,” which overlook the distinct interactional functions of each particle (SCHEGLOFF 1982). For example, as Gardner (1997, 2001) has shown, the particle *mm* in Australian English has characteristics that clearly distinguish it from other receipt tokens, such as *mm-hm* and *yeah*. While *mm-hm* typically functions as a “continuer”, inviting the prior speaker to keep talking, *yeah* functions as an acknowledgement token and is often followed by more talk by the speaker of the *yeah* (rather than the prior speaker) (JEFFERSON 1984, 1993). Gardner (1997) shows that *mm* is most frequently used as a “weak acknowledgement token,” like *yeah*, but that like *mm-hm*, it is rarely followed by same-speaker talk. This type of analysis, distinguishing interactional functions of each particle by considering its sequential placement and effect on subsequent talk, has been taken up in the growing body of work in Conversation Analysis on particles in diverse languages (e.g. SORJONEN 2001; GARDNER 2001; HEINEMANN and KOIVISTO 2016; HERITAGE and SORJONEN 2018) and suggests that the various *mm* particles in Wa'ikhana might have distinct interactional functions as well.

Prior work on stand-alone particles includes studies of English *yes* and *no* and their related variants (*yeah*, *yep*, *nope*, etc.) in response to both polar questions (e.g. RAYMOND 2003; STIVERS, ENFIELD and LEVINSON 2010) and assertions (STIVERS 2005, 2008; JEFFERSON 2002), as well as the particle *oh* and other “change-of-state” markers in response to informings and news reports (HERITAGE 1984). Recently, more cross-linguistic work has examined particles used both as responses to polar questions (e.g. SORJONEN 2001; STIVERS et al. 2010; MAZELAND and PLUG 2010; BOLDEN 2016) and as change-of-state tokens (e.g. HAYASHI 2009; TANAKA 2010; GOLATO 2010; KOIVISTO 2015), finding that available practices vary by language and that apparently similar practices in different languages do not always accomplish the same actions.

Finally, because many particles have minimal phonological form and lack substantial semantic content, their prosodic delivery plays an important role in the way they implement different functions in interaction. For example, Thompson et al. (2015: 65) show how the marked prosodic delivery of *oh* responses to informings in English can “display a cognitive-affective stance towards the informing and/or the person affected by it.” Specifically, *oh* tokens with the unmarked falling intonation are stance-neutral and simply mark the prior speech as “informative to the recipient” (HERITAGE 1984: 307), while *oh* tokens with “upgraded” pitch, relative to the prior talk, can indicate “(mild) interest” and encourage the prior speaker to say more (THOMPSON et al. 2015:67). These differences affect the nature of subsequent talk and the overall trajectory of the interaction. Prosody is also meaningful in *mm* particles in Australian English, as Gardner (2001) has shown, identifying weak acknowledgement (falling intonation), continuer (fall-rising), and weak assessment (rise-falling) functions. Prosody is thus key to interpretation of particles, and in investigating the actions they accomplish, attention to nuanced differences in their prosodic delivery is crucial.

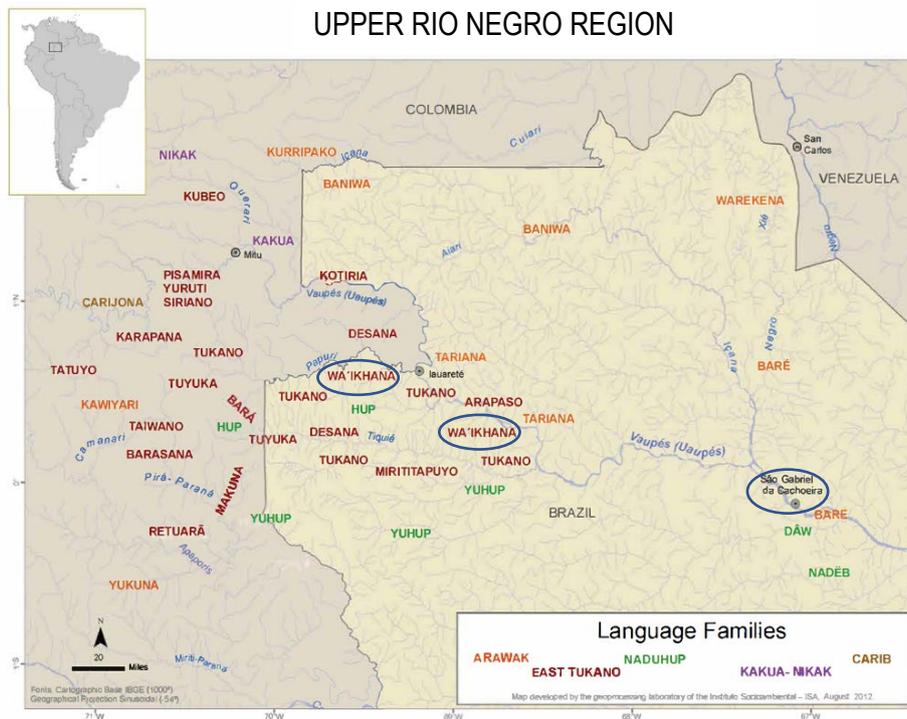
3. Data and language background

The data examined here come from a corpus of video-recorded conversations collected during fieldwork in Wa'ikhana villages in 2017.⁸ Wa'ikhana is spoken in Brazil and Colombia, in the Upper Rio Negro region of northwestern Amazonia. It is one of the sixteen remaining East Tukano languages, forming a sub-branch of the family with Kotiria (CHACON 2014). There are some 1,800 ethnic Wa'ikhana,⁹ but the number of fluent speakers is much smaller and is rapidly declining. Over the past three decades, many of the Wa'ikhana families still living within the Upper Rio Negro Indigenous Land have migrated from their traditional villages on the Papurí and Vaupés rivers to the larger, ethnically-mixed village of Iauaretê, where Tukano and Portuguese are the dominant languages. Those who relocated outside the Indigenous Land are now speakers of Portuguese (see STENZEL 2005; STENZEL and WILLIAMS forthcoming for information on the Wa'ikhana sociolinguistic situation).

⁸ This material is based upon work supported by the National Science Foundation (Documenting Endangered Languages Program) under Grant No. BCS-1664348. The authors also gratefully acknowledge support from the University of Colorado Boulder, and from the Federal University of Rio de Janeiro, CAPES, CNPq, FUNAI, and the Instituto Socioambiental in Brazil.

⁹ Source: Povos Indígenas do Brasil online <<https://pib.socioambiental.org/pt/povo/pira-tapuya>>, accessed 8/25/2020. Approximately 25% of the population lives in the departamento of Vaupés in Colombia (ca. 400 individuals) and 75% (ca. 1325 individuals) reside in the Brazilian municipality of São Gabriel da Cachoeira, some in villages within the Upper Rio Negro Indigenous Land but most in or around the towns of São Gabriel and Santa Isabel.

Figure 2. The Upper Rio Negro Region with indications of the traditional and current locations of the Wa'ikhana.



Source: Epps and Stenzel 2013: 10-11

Grammatical description of Wa'ikhana is still ongoing and analysis of the data presented here draws on Stenzel's work on the language (2007, 2013, 2014) as well as studies by Waltz (2002, 2012). The data and discussion clearly demonstrate some of the language's many interesting typological features, including predominantly verb-final constituent order and highly synthetic morphology. The latter is an especially important feature, since particle use, in particular minimal acknowledgment tokens, have not to our knowledge been described in polysynthetic languages. Wa'ikhana is exclusively suffixing and employs a fascinating system for marking how the speaker knows what they are saying (grammaticalized "evidentiality", found throughout East Tukano languages; see STENZEL and GOMEZ-IMBERT 2018).

The current Wa'ikhana corpus includes over 18 hours of spontaneous interaction, transcribed and translated using ELAN annotation software (WITTENBURG et al. 2006). Most of the extracts in this article come from a particularly rich seven-minute recording. In addition to transcription of the talk and other aspects of these interactions (e.g. silences, overlapping speech, stress/emphasis), we annotated each particle to indicate length, prosodic contour, and open/closed mouth production. We also include representative pitch tracks for analyzed tokens

within the transcript. After a brief account of our methodology in section 4, we move on to presentation of individual tokens in section 5, giving an idea of the range of forms and functions of these particles in Wa'ikhana.

4. Methodological considerations

Particles like *mm* in Wa'ikhana occur in ordinary conversation involving two or more speakers. They do not occur in monologic language use, such as narratives or elicited texts, and it is impossible to elicit or accurately recall them; we can only document them by recording spontaneous interaction. Their uses moreover relate primarily to the organization of social interaction itself and analyzing their meanings/functions requires a method that is sensitive to this organization. Thus, in this study we draw only on documented interactions and adopt the methods of Conversation Analysis and Interactional Linguistics, two of the most prominent approaches to the study of language in social interaction (see CLIFT 2016; COUPER-KUHLEN and SELTING 2018).

The core insight of Conversation Analysis is the recognition that the meaning of utterances is closely related to the social *action* they achieve and their embeddedness in *sequences* of action unfolding in real time (CLIFT 2016). Utterances in interaction are organized as sequences of paired actions, produced as turns-at-talk that are specifically crafted for the co-present participants. This talk unfolds in an orderly fashion, minimizing both silence between turns and overlapping talk (SACKS, SCHEGLOFF and JEFFERSON 1974). Turns can be of various shapes, including full clauses, phrases, even single words or particles, e.g. English *oh*. In other cases, recipients produce minimal particles between parts of another speaker's turn. These "continuer" particles are a signal that the participant is effectively passing on the opportunity to take a full turn (e.g. *mm-hm* in English; see SCHEGLOFF 1982).

In general, conversation obeys a universal turn-taking system (SACKS, SCHEGLOFF, AND JEFFERSON 1974) in which speakers are allotted one Turn Constructional Unit (TCU) at a time, TCU's being built out of units such as clauses, phrases and words. On occasion, however, current speakers make a bid to produce turns-at-talk that are designed to continue after a single TCU. These so-called "multi-unit turns" require a temporary suspension of the turn-taking system. Listeners must actively acquiesce to such bids for multi-unit turns, and one way they do this is by producing "continuers" (1982), like *mm hm* in English, which pass on the opportunity to take a full turn and thus serve to support the current speaker's project of producing an extended, multi-unit turn.

This understanding of turn-taking informs our analysis of the Wa'ikhana particles examined below. We distinguish “continuer” uses of *mm* particles from uses that more clearly respond to the prior turn, for example as acknowledgement, agreement, or confirmation.

5. Particles in Wa'ikhana

In this section we explore the uses of *mm* particles in Wa'ikhana conversation. We describe the phonetic and prosodic delivery of individual tokens and consider their sequential positions and possible effect on subsequent talk. We also examine their coordination with aspects of bodily conduct of both the teller and recipient. We begin with cases of *mm* particles as confirming responses and to signal agreement (respectively §§5.1-2) and then discuss sequences of two *mm* particles by different speakers (§5.3). In section 5.4 we describe use of the open-mouth counterpart of *mm*, represented as *ɦɦ*, to signal incipient speakership and wind up with observations on a related, sequence-closing particle, *mba* (§5.5). We offer this initial account of practices involving particles in Wa'ikhana as a contribution to the cross-linguistic literature on particles in conversation and the documentation and description of East Tukano languages as they are used in everyday interaction.

5.1 *Mm* as minimal receipt response

Conversational data shows that Wa'ikhana speakers sometimes produce a type of minimal particle, roughly *mm*, following some other bit of talk by another speaker. This particle is typically produced with greater stress on the first mora and a slightly falling intonation, which we indicate with a combination of underlining and capitalization (*Mm*) in the transcripts. Initial investigation suggests that this particle is a form of minimal response to an informing from the other speaker, which acknowledges receipt of the information but goes no further. Because of this general function, some of its uses can be thought of as “continuer”-like (SCHEGLOFF 1982), that is, coming from the recipient within an extending telling to signal the current speaker to keep going; but it also can show receipt of information from a simple informing or assertion. Extract 2 below illustrates a common environment of use. In this extract, DD (on the right) and MC are looking at a printout of entries from the Wa'ikhana lexical database, just before the first day of a community workshop focusing on renewed work on the Wa'ikhana dictionary. They have been discussing issues related to the dictionary and the existing orthography, including

how to represent vowel quality, length, glottalization, and aspiration, all important aspects of Wa'ikhana phonology (cf. STENZEL and DEMOLIN 2013). These are quite complex technical issues and more in the epistemic domain of DD, who has been a prominent leader of language maintenance efforts in the community for many years. Just prior to Extract 2, talk has shifted to discussion of vowel length,¹⁰ and in line 1, DD informs MC that a former teacher of his had taught them to indicate vowel length “with little lines” (*traçogã me'na*).

Figure 3. “Little Lines”



Source: produced by the authors.

Extract 2: “little lines” (Wa'ikhana dictionary) [acpw_025]¹¹

1 DD: *tirope* () *o'õsagã yeetirit(a)* (0.4)
tí-ró-pe *o'õ-sáá-gã* *yeé-étí-dí-ta*
ANPH-SG-CONTR DEIC.PROX-be.SO-DIM do-IPFV-VIS.PFV.2/3-EMPH

2 *tra:çogã me'na.* (0.4) *gũ:: nino(le),*
tráçóp-gã' me'na *gúú' ní-ro-de*
line-DIM COM/INST say-SG-OBJ
He¹² used to do it like this (0.4) with a little line, saying “gũũ”
(DD begins drawing a line with his finger)

3 MC: **M:** [m.]

¹⁰ Vowel length is not contrastive in Wa'ikhana, but a rule of two-mora prosodic minimality for independent phonological words leads to CVV pronunciation of roots in isolation, as in a dictionary entry, alternating with CV pronunciation of these same roots when they occur in words where minimality is accomplished by additional morphology, with shortening particularly notable in fast speech. How to represent such alternations in the orthography and in dictionary entries is a tricky issue that DD has insightfully recognized.

¹¹ All extracts in section 5 are from the first three minutes of this recording.

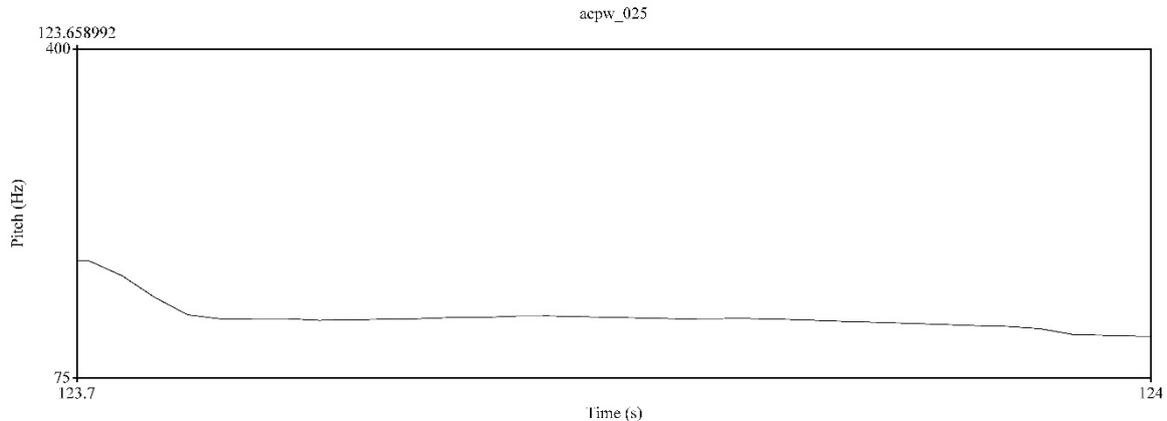
¹² This ‘he’ refers to DD’s teacher in São Gabriel, identified in the previous line by *tirope*.

- 4 DD: [() "u:: nika°no°dɥ" nidi () ,
ɥ ní-ká'ǎ́-no-dɥ ní-di
say-DUR-SG-AFFECT say-VIS.PFV.2/3
"(It, the line) making the pronunciation 'uɥ'", (he) said
- 5 MC: **M:** [m.]
- 6 DD: [uhsã] são gabriel bu'edipeɥle.
aɥ uhsã' são gabriel bu'é-di-pehe-pɥ-de
yes 1PL.EXC são gabriel study-NMLZ-CLF:time-LOC-OBJ
yes, when we studied in São Gabriel

In lines 1-2, DD gives a piece of information about what his schoolteacher used to do. While DD's turn is apparently possibly complete in a syntactic sense at this point, it is not clear to us if the turn is prosodically or pragmatically complete. We note that DD begins drawing a line in the air with his finger in line 2 and holds this gesture through MC's particle in line 3 and into line 4. At the same time, DD's gaze is directed at his own hand while making the gesture. This embodied behavior indicates to us that DD's turn is perhaps not pragmatically complete at this point (end of line 2). Just after the end of line 2, MC produces a receipt token, *M:m*, which seems to minimally acknowledge the information DD has just given without doing anything else. The second instance of *M:m*, produced by MC in line 5, occurs at a similar sequential position; DD has extended his turn from lines 1-2 to add more information about when his teacher would draw the little lines, and in response to that new piece of information, MC produces another *Mm*. Once again, we see this particle as a minimal receipt of information.

Before turning to another use of particles in Wa'ikhana, let us take a closer look at the prosody of the "minimal receipt" particles in Extract 2. The prosodic pattern on the two tokens in this extract (and several others that come just after the lines included here) is low, fairly level, with a slight fall, as can be seen in the Praat (BOERSMA and WEENINK 2018) pitch trace in Figure 4.

Figure 4. Praat pitch contour for the *mm* particle in line 3, representative of the “minimal receipt” prosody



Source: produced by the authors.

5.2 *mMm* as a marker of agreement

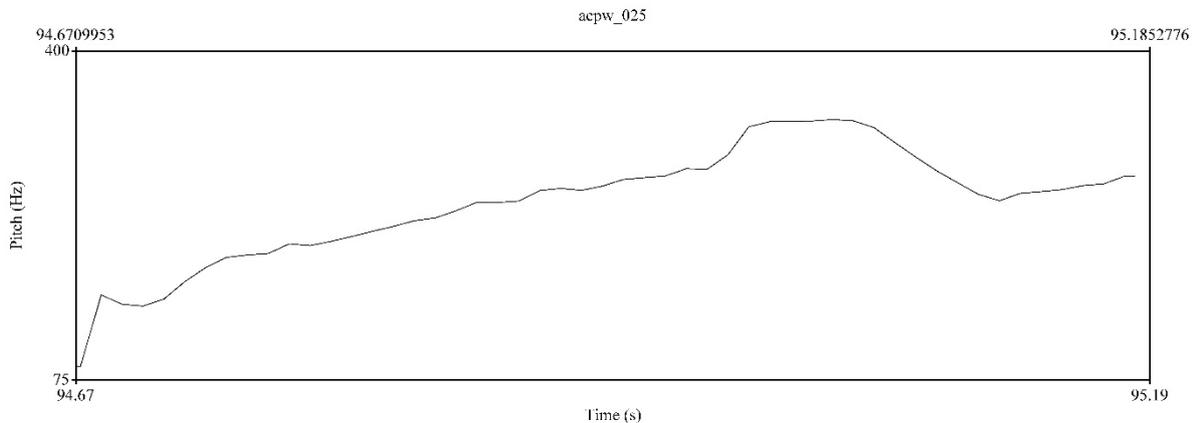
Another particle — or perhaps a different form of the *same* particle — is transcribed as *mMm*, indicating greater length than the minimal receipt response described in section 5.1, and with a different prosodic contour. This particle shows a rise-fall pitch contour and is typically both high in the speaker’s range and has longer duration. Extract 3 can serve as an illustration. In this segment of the interaction, DD and MC are discussing orthographic conventions for writing aspiration in their language. The already-established orthographic system of Tukano, a closely related language, does not indicate aspiration, but Wa’ikhana speakers have chosen to do so in their writing system. DD suggests that it is important to indicate aspiration in the orthography:

Extract 3: “pronouncing ohse” (Wa’ikhana dictionary)

- 1 DD: ohse (nino)# “oh” hido
 ohsé ní-do oh hí-do
 fray say-SG COP-SG
 Saying “ohse” there’s an “h”
- 2 DD: katamaha[pe] to as[piraçãõ]
 kátamaha-pe to aspiraçãõ_P
 sound.of-CONTR DEF aspiration
 the sound of aspiration is there
 ((DD writes “h” in the air))

- 3 MC: [hm] [uũu]
- 4 (0.4)
- 5 DD: "ohsé"
 fray
- 6 (.)
- 7 MC: Mm.
- 8 (.)
- 9 DD: to ti(ki)na neeni bohtoletha "o'se" wa'kali.
 to tí-kina neé-dí botóle-taha o'sé wa'á-ká'á-dí
 DEF ANPH-PL grab-NMLZ result-IRR sew go-DUR-VIS.PFV.2/3
 taking out (the aspiration) it would be "o'se" (sew)
- 10 (0.4)+(0.6)
 ((DD looks at MC))+((MC nods and continues until + in line 11))
- 11 DD: ũu. "ohse"+ (.) ninope=
 ũ̃u "ohsé" ní-do-pe
 say-SG-CONTR
 yeah, "ohse" (.) saying like that
- 12 MC: =u[ũu.]
- 13 DD: [yũ'upe] saʔni leipe: ni °(yũ'upe)° (.) ()
 yũ'ú-pe sáá-ní leíp-pe ní-í yũ'ú-pe
 1SG-CONTR be.so-say read-CONTR say-VIS.PFV.1 1SG-CONTR
 to me the reading is different (.)
- 14 DD: õsã nino,
 o'õ-sáá ní-do
 DEIC.PROX-be.so say-SG
 saying it like that (with aspiration),
- 15 DD: yũ'una sani bu'eri (0.4)
 yũ'ú-na sáá-ní bu'é-di
 1SG-LOC be.so-say learn/teach-VIS.PFV.2/3
 to me it was taught like that.
- 16 DD: to aspiração naha kuẽdagna yũ'u tha
 to aspiração_P-naha kuẽ-éda-gũ~na yũ'ú-tha
 DEF aspiration-EMPH have-NEG-SWRF-LOC 1SG-EMPH
 If it doesn't have the aspiration (written), I

Figure 6. Praat pitch contour for the *mm* particle in line 20, Extract 3, representative of the “expressive” agreement prosody



Source: produced by the authors.

5.3 Sequences of *mMm* particles

In sections 5.1-5.2 we saw that *Mm* and *mMm* particles typically occur following assertions and informings. Since the use of such vocal continuers to indicate receipt and agreement is a common — perhaps universal — conversational practice, we might ask whether there is anything unique about the use of *mm/mMm* particles in Wa'ikhana. Indeed, two features do stand out. The first is their relative frequency. In the data examined so far, *mm/mMm* particles are produced by listener-recipient(s) at frequent points of possible syntactic completion within the current speaker's turn. Second, and somewhat more surprising, are commonly found *sequences* of *mMm* particles, one immediately following another, as occurs soon after Extract 2, where the speakers appear to be talking about the representation of vowel length in the orthography:

Extract 4: “vowel length” (Wa'ikhana dictionary)

1 DD: *t_o naha: o'õ yu'u tu'otugãna, to ()- yee::- yemeneda*
 tó naha o'õ yu'ú tu'ótu-gã-na tó yéé yee-menéda
 DEF EMPH DEIC.PROX 1SG understand-1SGM-LOC DEF do do-NEG
 That, here, to my understanding that hasn't been done

2 DD: *bahuli o'õ, (.)*
 bahú-di o'õ
 appear-VIS.PFV.2/3 DEIC.PROX
 (long vowels don't) appear here,

- 3 MC: *ti*[:: *maada*]
tí mááda
ANPH not.have
they aren't there (the printout doesn't have them)
- 4 DD: [*sa ihido*] *bo'do*=
saa ihí-do bo'do
be.so COP-SG type
so it's like that
- 5 MC: =*ũũ*.=
- 6 DD: ="*uu*" *nino*
uu ní-do
say-SG
saying "*uu*"
- 7 MC: ***mmM***=
- 8 DD: =***mMm***
- 9 (1.0)
- 10 DD: °#*mba*#°.

At lines 1-2, DD offers the assertion that some cases of longer vowels have not been included in the orthographic representations in the printout they are examining. We note that this assertion is stated in the negative, possibly designed as a complaint about the current orthography. MC offers his understanding of the situation at line 3, and in overlap DD recompletes his turn in lines 4 to 6, offering MC another opportunity to respond. This segment of the talk seems to come to a possible close with MC producing a particle at line 7, and then DD producing a responsive particle at line 8. The particle from DD is somewhat similar in prosody to the *mMm* we saw in section 5.2 above, but it occurs in a different sequential environment: here it follows some kind of appreciation particle from the recipient, MC, and seems to accept that appreciation. Such sequences of particles are not uncommon in the data and appear to act as pre-closings to a topic; they are often followed by *mba*, which we argue in section 5.5 is typically used as a bid to close off a topic or sequence.

- 8 MC: = **uũu**
9 (.)
10 DD: *mba* .
11 (0 . 8)

DD starts this segment quoting Father Eduardo, a now-deceased priest who worked in the region and observed the existence of both aspiration and glottalization in Wa'ikhana and closely related Tukano. MC acknowledges receipt of this information at line 5 with an open-mouthed nasalized particle, and then immediately produces another open-mouthed nasalized particle with a rise-fall contour at line 6. He then continues as a speaker, if only to extend DD's turn with an additional detail that displays his own understanding of the distinction. At line 7, DD accepts or confirms MC's display of understanding (see §5.1), which MC acknowledges with another similar particle forming a sequence (see §5.3). DD then closes the sequence at line 10 with *mba* (discussed in §5.5 below). As far as we have seen in our initial analyses, **uũu** is the only particle to be used to make a bid to become the next speaker.

5.5 Sequence-closing (*m*)*ba*

Finally, as noted at the end of section 5.3 and mentioned just above, we see an additional particle, (*m*)*ba*,¹³ which initiates the closing of a sequence. Though phonetically quite different from the other particles discussed so far, we include it here because it generally occurs after a sequence of two *mMm* particles. There is often also a lengthy gap of silence before (and sometimes after) (*m*)*ba* (e.g. the silences in line 9 of Extract 4 and 11 of Extract 5).

Tellingly, the (*m*)*ba* particle is sometimes translated by native speakers as 'I don't know', which can be used to initiate closings in English (SCHEGLOFF and SACKS 1973). This, along with its sequential position and the fact that it is almost always produced by the same speaker who initiated the sequence, indicates to us that (*m*)*ba* may be linked to mitigation of epistemic stance. Making an assertion in "first position" inherently sets up the current speaker as K+ or "more knowledgeable" (HERITAGE 2012), and there may be times when a K+ speaker acts to downgrade this implied epistemic primacy. We suggest that use of the

¹³ This particle has both phonetic oral [ba] and pre-nasalized [mba] realizations. The pre-nasalized variant may simply be the result of the speaker initiating production while the lips are still closed and airflow is still passing through the nasal cavity, but even such subtle phonetic distinctions can have interactive functions, and we have yet to determine if there is a difference in their usage.

particle (*m*)*ba* allows the K⁺ speaker to moderate (or take a step back from) the inherently “knowing” position that goes along with making an initial assertion while at the same time initiating closing of the sequence. We note that throughout the conversation from which these extracts were taken, DD is responsible for the majority of first position assertions and extended informings; he is also the speaker who produces the (*m*)*ba* particles.

6. Conclusion/Discussion

We began this study with the observation that speakers of Wa'ikhana frequently use minimal particles, roughly *mm/mMm*, following an assertion or action involving an extended telling. This practice seems to occur much more commonly than one might expect based on studies of recipient practices in other languages; we moreover noticed a particularly striking practice involving a sequence of *mMm* particles with similar phonetic and prosodic shapes. From the vantage point of descriptive linguistics, these practices present a puzzle. How can we explain their frequency and functions?

Though typically ignored by linguists due to their grammatically marginal status (DINGEMANSE 2017), such practices are known to be deployed systematically by conversational participants in the collaborative production of sequences of talk (see GOODWIN 1986). We moreover know that phonetically similar particles can have different uses within a single language (e.g. *mhm* and *mm* in English, cf. GARDNER 2001) and that particles vary across languages (e.g. “change-of-state” particles in English, Japanese, and Finnish; see HERITAGE 1984; HAYASHI 2009; KOIVISTO 2015). This led us to hypothesize that the *mm* particle and its related variants would prove to be systematically deployed by Wa'ikhana speakers and that each type, including its unique prosodic pattern, would serve different interactional functions. In this sense, our study contributes to the understanding of grammar in interactional linguistics as “positionally sensitive” (SCHEGLOFF 1996; FOX and THOMPSON 2010; THOMPSON et al. 2015).

Indeed, we found this to be the case. Wa'ikhana speakers use *mm* particles with low and slightly falling prosody as affectively “stance-neutral” continuers following assertions and (some) informings, which are often produced within extended tellings. This use of *mm* particles is one resource for participants to “display reciprocity”, a likely universal practice, particularly in contexts involving multi-unit turns. Interestingly, we found that the prosodic delivery of *mm* particles contributes to their interactional effect, also in line with prior work on the prosody of particles in English (e.g. THOMPSON et al. 2015). This is evidenced by two variants: a second,

longer *mMm* particle produced with higher pitch and a rise-fall contour that we analyze as signaling agreement, and an open-mouth *h̃u* token used to mark incipient speakership.

The very productive use of *mm* particles, compared to similar forms in languages like English, suggests two possible lines of explanation, one cultural and one interactional. Culturally, it might be the case that Wa'ikhana speakers are encouraged and expected to be active recipients, and producing frequent continuers is a way to display reciprocity and positive affiliation in conversation. In terms of turn-taking, like Japanese, it could be that Wa'ikhana has “delayed projectability” (TANAKA 2000), in which recipients may need to wait to see how a turn unfolds to know how and when it will come to possible completion (see also FOX, HAYASHI and JASPERSON 1996). In Japanese, recipients produce frequent continuers to show their alignment as the turn projection unfolds, and the same might be true for Wa'ikhana. Wa'ikhana is similar to Japanese in being a verb final and highly agglutinative (even polysynthetic) language, so it is possible that typological features may play a role in shaping similar turn-taking practices in the two languages. This hypothesis awaits further research on turn-taking in Wa'ikhana.

Although the Wa'ikhana particles we examined conform to expected patterns in some ways, we also found aspects of their use indicating possible language-/culture-specific principles. For instance, speakers of an extended telling often produce a particle *after* the recipient has produced one. This practice, producing sequences of the longer *mMm* particles, is notably frequent in our data but is somewhat unexpected from a cross-linguistic perspective. We have suggested that the occurrence of an additional *mMm* particle in “third position”, though prosodically similar, has a different interactional function due to its sequential environment. It is produced by the same speaker who offered the initial assertion or informing and follows an appreciation particle from the recipient, seemingly accepting that appreciation. We additionally observed that such sequences are often followed by a practice involving use of the particle *(m)ba* as a device that not only works to initiate ending of the current sequence of talk, but may also be a way for the initial speaker to take a step back from (i.e. “downgrade”) the position of epistemic primacy inherent to the actions of asserting and informing (and all first-position “telling” actions, see SIDNELL 2014).

As noted in the introduction, this study focuses on a highly endangered language, spoken by a small group of people. We realize that as non-speakers, our work with Wa'ikhana interactional data — and very delicate interactional practices such as small particles — presents significant analytical challenges. CA was originally conceived as a method for people to explicate the order found and created in their own communities, and our analyses may be

curtailed in some ways by our non-member status. The additional fact that the still-developing Wa'ikhana writing system has no fixed forms to represent these particles adds to the complexity of our investigation, e.g. is *mm* really a different particle from *mMm*? We hope to have offered endogenous evidence indicating they are indeed different, and despite the challenges mentioned, it is a testament to the power of the CA method that we can provide plausible analyses of the particles explored here, which will certainly be expanded as our work continues. This analysis contributes to the growing body of cross-linguistic CA literature on a wide range of previously little described languages (see DINGEMANSE and FLOYD 2014).

Finally, we suggest a somewhat more speculative point regarding these documented practices within the broader Upper Rio Negro linguistic area. It is possible that the extremely frequent use of *mm* continuers and, especially, the practice whereby speakers produce *sequences* of *mMm* particles, is common in the region. Research identifying the many shared characteristics of discourse (in a range of primarily ritualistic and highly performative forms and practices) across lowland Amazonia suggests that this broad region may constitute a “discourse area” parallel to a “linguistic area”, in which languages in longstanding contact become targets for mutual diffusion of features (BEIER, MICHAEL and SHERZER 2002). While Beier et al. focused on ritualized discourse, we propose that such shared discursive practices may also extend to the conversational domain and include things such as the use of particles. Given that face-to-face conversation is both the most basic form of language *use* and the primary locus of language *contact*, it is very likely a locus for feature-sharing. This points to a distinct interactional level at which we may look for new sets of shared practices that define “linguistic” or “discourse” areas. Exploring additional aspects of social interaction that may display common characteristics is an important goal for future research.

Although we have focused on Wa'ikhana conversations in this article, the data of our larger project, which includes conversations involving speakers of Wa'ikhana, Kotiria, and Tukano (and a few other regional languages), suggests that the more language-specific practices we have identified so far may have broader (perhaps at least pan-Tukanoan) scope. Since most individuals (from Tukanoan ethno-linguistic groups) are highly multilingual and in constant contact with speakers of related languages due to the cultural norm of linguistic exogamy (cf. STENZEL and WILLIAMS, forthcoming), this would hardly seem surprising. Interestingly though, researchers of Naduhup languages spoken in the same region say that they have *not* observed similar interactional practices, which suggests that diffusion of features in conversation may be constrained by other cultural or linguistic factors. It is our hope that this article has provided not only initial insights into the particular resources available to Wa'ikhana

speakers in conversation, but has also raised important questions for further cross-linguistic research on the topic of reciprocity and turn-taking in interaction involving other lesser-known and endangered languages.

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Gloss abbreviations

AFFECT	affected	INT	interrogative
ALT	alternate/other	IPFV	imperfective
ANPH	anaphoric	LOC	locative
ASSERT	assertion (evidential)	NEG	negative
CAUS	causative	NMLZ	nominalizer
CLS	classifier	OBJ	objective (case)
COM/INST	comitative/instrumental	PFV	perfective
CONTR	contrastive	PL	plural
COP	copula	POSS	possessive
DEF	definite	PROG	progressive
DEIC	deictic	PROX	proximal
DIM	diminutive	RPT	repetitive
DIST	distal	REP.QUOT	quotative reported (evidential)
DUR	durative	SG	singular
EMPH	emphatic	SPEC	speculative
EXC	exclusive	SWRF	switch reference (different subject)
FRUS	frustrative	VIS	visual (evidential)
INC	inclusive		

Transcription conventions

Transcription conventions follow the now standard Jeffersonian system in Conversation Analysis (see Hepburn and Bolden 2013): underline indicates loudness; : indicates length; [] indicate the beginning/end points of overlapping speech; = indicates latched speech; ↑↓ indicate sharp rising/falling pitch; °quiet speech°; >rushed speech<; (length of silence); (.) micro pause. Gestures and other embodied actions are given within (()). Other conventions particular to our data include: *p/T* indicating Portuguese lexical elements, and in our transcription of particles, *M/ḥ* indicate higher pitch/intensity.

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