Verbal Gestures in Wolof

Lenore A. Grenoble, Martina Martinović, Rebekah Baglini

1. Introduction

Wolof is a Niger-Congo language spoken widely in Senegal and the Gambia. With approximately 3,930,000 speakers, it is one of the official languages and the *lingua franca* of Senegal. Another 185,000 people speak Wolof in the Gambia and a relatively small number (12,000) in Mauritania. The total number of speakers worldwide is estimated to be 3,976,500 in 2006 (Lewis et al. 2013). In urban settings, it competes with French, which is the main language of education and government. Urban Wolof has been studied both linguistically and sociolinguistically (McLaughlin 2001, 2008), and there is additional research on the sociolinguistics of borrowing and language contact in Senegal. There are a number of linguistic accounts of Wolof phonology (Ka 1994), morphology (Ndiaye 1994, 2004) and syntax (Church 1981; Dunigan 1994; Mangold 1977; Martinović 2013; Russell 2006; Torrence 2005, 2012a,b, 2013a,b). Still, given the role of Wolof in Senegal, there is surprisingly little study of its use in discourse and few studies of its semantics and pragmatics (but see Baglini to appear; Robert 1991; Creissels & Robert 1998; Martinović to appear (a); Perrino 2005, 2007; Robert 2006). In this paper we describe a group of sounds that stand outside of the basic phonemic and lexical inventory of Wolof but are a core part of the Wolof communicative system. We call these *verbal gestures*. They are cross-linguistically understudied and, to the best of our knowledge, only Dialo (1985) has analyzed them in Wolof. We report on fieldwork conducted in Ronkh, a village located in northwestern Senegal, two to three kilometers south of Mauritania and approximately two hours drive from Saint Louis. Wolof is the dominant language in Ronkh and is the primary, preferred language for all speakers, although there is a small Pular community of around one hundred people living on the outskirts of the town. Village officials and teachers have good command of French, but its use is limited to official meetings and, with some restrictions, to the schools. In the home, on the street, in the marketplace and in all public gatherings, Wolof is the language of communication. Thus this variety of Wolof arguably differs from Urban Wolof of Dakar, which exhibits heavy code-mixing with French. Ronkh was selected as the fieldwork site specifically because it shows less influence from French.

2. Verbal gestures, (para)linguistic clicks, and other sounds

We use the term *verbal gestures* to refer to the set of linguistic elements that are not lexical items per se and include sounds or segments which stand outside a language's phonemic inventory but are still part of its communicative system. An example in English is the gesture *mhmm*: it is not a word but is very frequent in conversation, and it is uttered with distinct prosodic contours. Eight different types of *mhmm* have been identified in Australian English as having "prototypical prosodic shapes. Some are unique to their type, making them identifiable by this criterion alone" (Gardner 2001: 65; see also pp. 252-3).

*Lenore A. Grenoble, University of Chicago, grenoble@uchicago.edu; Martina Martinović, University of Chicago, martinam@uchicago.edu; Rebekah Baglini, University of Chicago, rebekahbrita@uchicago.edu. Research on this project was funded in part by the Dean of the Humanities of the University of Chicago and we are grateful for her support. We are also grateful to Sarah Kopper for her help in elicitation, translation and understanding of Wolof, as well as to our many consultants in Ronkh and Chicago. We thank the audiences at the Workshop on Language Variation and Change at the University of Chicago and at the Annual Meeting of the Linguistic Society of America, where earlier versions of this paper were presented, for useful feedback, as well as the audience at ACAL 44 and two anonymous reviewers. All mistakes are our own.

The category of verbal gestures is broad and includes interjections (Ameka 1992; Kockelman 2003), paralinguistic clicks (Gil 2011) and, in some languages, ideophones and animal calls. To date, verbal gestures are relatively understudied, but are prevalent in the world's languages. Fries & Pike (1949) point out that two or more systems may coexist within a single dialect, even though one or more of these systems may be highly fragmentary. Further, a few special sounds may belong to specific morphemes only (e.g. glottal stop in English [ʔmʔm]). Harris (1951:71) noted the existence of such sounds in his foundational work Methods in Structural Linguistics:

> In some languages we will find a number of segments which differ from all the others (though they may be similar among themselves) in the kinds of environmental limitations they have. These segments will in many cases occur only in exclamation morphemes, animal calls, words borrowed from foreign languages, and the like. We may create a separate economy of phonemic elements out of these segments, and note their limitation to a small or otherwise identifiable group of morphemes.

Harris does not specify what is meant by "environmental limitations" – whether these are distributional (functional) limitations, or phonological or morphosyntactic ones. In Wolof, we find morpho-syntactic restrictions in the use of verbal gestures; notably, they do not take any inflectional morphology and do not combine in syntactic structures. They cannot be coordinated or embedded (Section 4). There are quite possibly stylistic restrictions on their distribution as well. Some speakers characterize them as "rude" or a sign of "laziness" in speaking, often attributing their use to male adolescents. This is consistent with certain gestures attested throughout the African diaspora, notably 'cut eye' and 'suck teeth' (Rickford & Rickford 1976). Our own observations, however, indicate that Wolof verbal gestures are used by both genders across generations and are not restricted to low register discourse.

In Wolof we can define verbal gestures in terms of a set of linguistic criteria: (i) they consist of elements not in the phonemic system; (ii) they do not take inflectional or derivational morphology; and (iii) although they can serve as full turn sequences in conversational structure, they are not part of any morphosyntactic frame. The class of verbal gestures is thus defined negatively, i.e., in terms of what they are not: they are *not* phonemes, do *not* take morphology, do *not* occur in morphosyntactic frames. In Section 2.1 we discuss a general continuum of verbal gestures from those that are more like lexical items on the one end, to those that function more like hand gestures and facial expressions on the other. Although some (such as the *waaw* 'yes' or *déedéet* 'no' clicks can substitute for these words, unlike regular lexical items they are not inserted in a morphosyntactic frame, and cannot be embedded. Others (such as *ciipetu* [negative evaluation]) have pragmatic value but no lexical meaning. Finally, the articulation of Wolof verbal gestures is contrastive: both place of articulation and manner of articulation serve to distinguish different verbal gestures.

In American English, examples of verbal gestures that use sounds outside of the phonemic system include the glottal stop in some pronunciations of *uh-oh*, the dental click in *tsk-tsk*, or the use of tone in *mhmm*. These gestures are not, strictly speaking, lexical items. Verbal gestures are largely ignored by linguists: there are some studies of paralinguistic clicks (e.g. Gil 2011), a few studies of clicks and other vocalizations as playing a role in conversation (Ogden 2001 for Finnish; Wright 2007 for English), and a set of studies on discourse markers which are a different phenomenon. Ideophones are, of course, discussed, but they typically are made up of sounds in a language's phonemic inventory and function as full-fledged lexical items, taking appropriate morphology. Wolof has an extensive inventory of ideophones (Dialo 1985). Although by some measure they also fall into an overlooked part of language,[1] they do not fit the definitional criteria of verbal gestures.

In our discussion, we focus on verbal gestures, which are produced with some kind of vocalization. Verbal gestures in Wolof are highly conventionalized: their use and pronunciation are not idiosyncratic ; they are used across the speech community, by speakers of different ages and genders, and are recognized

[1] Similarly, Childs (2003:118) points out that a Wolof dictionary (Munro & Gaye 1991) contains no ideophones, despite their prevalence in the language.

and understood by members of the speech community. They are recognized by speakers throughout all regions, are readily elicitable and can be easily identified without supporting context. These may or may not be uttered with accompanying facial and hand gestures. Although our discussion here focuses on the use of verbal gestures as documented in our own fieldwork, their use is widespread throughout Senegal. We have casually observed their use throughout all of Senegal, in urban centers such as Dakar and Saint Louis, in the south in Kedogou, and throughout the regions to the north bordering Mauritania.

2.1. Clicks, paralinguistic clicks and animal calls

Clicks represent one class of sounds used in languages which do not have clicks in their regular phonemic inventory. In the *World Atlas of Linguistic Structures* (WALS), Gil (2011) provides a survey of *paralinguistic clicks*, noting them as having the following features:

> The para-linguistic nature of such clicks is reflected in a number of exceptional features. Phonetically, they involve sounds lying outside ordinary phonemic inventories. Grammatically, they are not integrated into morphological and syntactic structures. And semantically, they convey a very restricted range of meanings, some of which are associated with the expression of emotions.

Gil divides paralinguistic clicks into logical (yes/no) and affective meaning, noting in WALS a total of 143 languages with paralinguistic clicks, of which 47 have clicks which express logical meaning, 71 with affective but not logical meaning, and 25 which may express neither logical nor affective meaning. This third group includes languages with no paralinguistic clicks at all, as well as languages which use clicks for other purposes (such as turn-taking or addressing babies). Specific examples include a lateral click used in English to encourage a horse to trot (Ladefoged 1982), and a dental click used to express disapproval, commonly represented as *tsk-tsk*. Gil's survey does not include Wolof, but he does mention Mauritanian Fula, which is spoken in a contact zone with Senegalese Wolof. It uses a single dental click for 'yes' and a double dental click for 'no'. A full examination of verbal gestures in Wolof indicates that limiting the description to clicks misses other conventionalized gestures and that the term paralinguistic is misleading in that some of these gestures, including Gil's yes/no clicks, substitute for lexical items and so are not truly paralinguistic but linguistic.

Despite their prevalence in natural language, verbal gestures are largely forgotten in descriptions of Wolof, with the exception of Dialo (1985). He discusses what he calls *expressive elements*: hand and verbal gestures, interjections, ideophones, and onomatopoetic words. He identifies clicks and notes that they are not part of the phonemic inventory of Wolof and do not make up parts of regular lexical items or functional words of Wolof. Specifically, he notes that the clicks differ in terms of place of articulation and the number of times that the articulation is repeated. Our description takes this somewhat further; see Section 3. Dialo considers these clicks to be pseudo-syllables, in the sense that they are not accompanied by vowels. His description is very brief and does not correspond entirely to our own observations in several key points. First, he states that the clicks can be used to summon animals; this was also noted by our consultant from Dakar, and in this respect Dakar Wolof differs from the Wolof variety spoken in Ronkh. Ronkh Wolof has an elaborate system of animal calls, with different call for each animal, that does not overlap with the verbal gestures. The inventory includes calls to summon a dog, horse/donkey, cat, sheep or a goat, with a set of different deictic calls for 'come' and 'go'. We tested the recordings of animal calls with other speakers who correctly identified them out of context. Second, Dialo notes that the use of clicks and the other verbal gestures identified here is in decline in urban Wolof, explaining this as a consequence of the lack of animals in cities. We have not systematically tested the use and distribution of verbal gestures in any place other than Ronkh, but our younger consultant from Dakar recognizes them all. Casual observation suggests they are still frequently used in Saint Louis, Dakar, and Kedogou, although perhaps less frequently in public places than in Ronkh. The differences between urban and rural, or deep, Wolof have been discussed elsewhere (McLaughlin 2001, 2008) but such descriptions generally focus on the mixture of French with Wolof in urban settings and do not

discuss verbal gestures.

Phonemes, verbal and non-verbal gestures can be arranged on a continuum along the parameter from those which are most linguistic to those which tend to be paralinguistic, as represented in Figure 1, where the darkness of the bands corresponds to the most common use of the element:

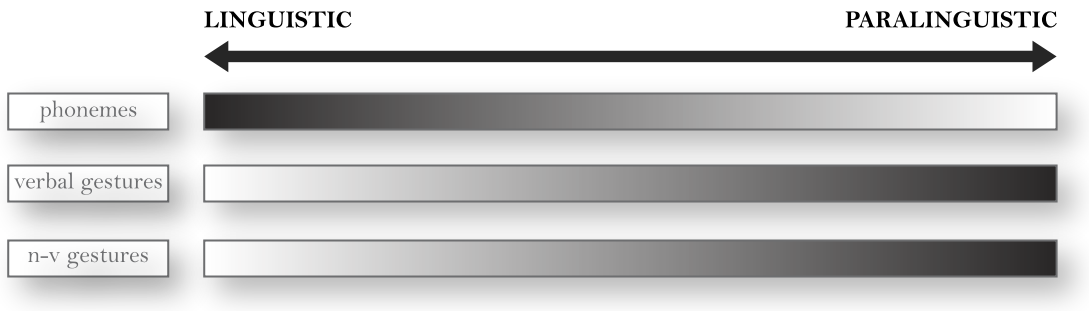

Figure 1: Verbal and non-verbal speech elements and their function in the world's languages.

This schematic represents the relative distribution of the three different categories of verbal and non-verbal speech elements: phonemes, verbal gestures, and non-verbal gestures vis-à-vis linguistic versus paralinguistic uses. Phonemes figure largely in the linguistic system of a language, although they are certainly used paralinguistically. In contrast, non-verbal gestures have a strong tendency to have paralinguistic functions, although they can have linguistic uses. For example, a head nod in many languages can be seen as a non-verbal substitute for the lexical item 'yes,' signaling agreement, assent, correctness etc. Verbal gestures in Wolof lie in between: a set have clear linguistic uses, while many are more paralinguistic in nature.

2.2. Methodology

Our analysis here is based on data collected during fieldwork in Ronkh using a number of different methods. All speakers involved in the study are first-language speakers of Wolof; some have minimal knowledge of French. The study includes speakers of both genders, ranging in age from ten to sixty-five years old. Ronkh was selected as a study site because of the relatively low influence of French there. We made connections with people through the local Peace Corps volunteer (Sarah Kopper), who had been living in Ronkh for eighteen months by the time we conducted the fieldwork.[2] Consultants were first identified by snowball sampling and then selected on the basis of general availability and willingness to work with us; in general, people were very happy to talk to us and found the topic amusing. Attempts to video record conversations were not successful: speakers lined up in front of the video camera and stopped talking. We were able to video record some one-on-one video sessions. Altogether we conducted direct elicitations structured interviews with eleven people (six female and five male) and recorded approximately six hours of spontaneous, unstructured conversation with different groups of people, mixed gender and all-female. Some gestures, such as the attention-getting *hiss*, are most frequently heard in casual encounters, on the street and in casual conversation. Using the participant-observation method, we were able to identify the use of verbal gestures in a variety of discourse settings.

The widespread use of verbal gestures was first identified through casual observation: upon arrival in Senegal, we noticed that speakers frequently did not use the words *waaw* 'yes' or *déedéet* 'no' but rather responded to questions with clicks. The use of clicks as backchannels was also prevalent. Having

[2]Prior to the actual fieldwork, the team spent 6 months studying Wolof in a field methods class at the University of Chicago. Baglini and Martinović continued working with the speaker-consultant in Chicago. Grenoble made a preliminary trip to Senegal for three weeks six months prior to our fieldwork there. It was during this first trip that she identified the use of verbal gestures in Ronkh.

identified the use of these verbal gestures, we began to create an inventory of Wolof gestures through direct, focused, elicitation. When asked for other ways to say 'yes' or 'no', some speakers responded with clicks. Others responded only after being provided a sample of one of the *waaw* clicks. Interviews were conducted in Wolof or a mixture of Wolof and French. Despite the fact that they are well-known and readily recognized, apparently there is no label or conventional word to refer to these vocalizations in Wolof. When asked for a term, one speaker offered *gestes u geminn* 'lip gestures' (in a mixture of French/Wolof), but this is not a conventionalized term for the set of all verbal or lip gestures. But this term was not recognized by other speakers and requests for *gestes u geminn* failed to elicit the vocalizations. However, all speakers interviewed understood the concept, when provided with a sample articulation from the interviewer or an explanation in French or Wolof. That is, verbal gestures are readily elicitable: speakers had no difficulty in producing them through description of their functions, i.e., as clicks used instead of *waaw* 'yes' or *déedéet* 'no'. A single sample click provided by the researchers would in turn serve as a stimulus for speakers to provide an inventory of the most frequent verbal gestures. This was a very direct elicitation method: we simply asked 'Can you think of another way to say yes?' If speakers did not find a response, we would continue by saying: 'Like CLICK?' and provide a sample click as a stimulus. At this point, all speakers acknowledged the stimulus and provided examples of different verbal gestures. That is, as soon as speakers understood what we were looking for, all speakers were able to provide different kinds of verbal gestures without any samples. Most speakers could provide multiple variants of a given gesture (as given in Table 1). Not surprisingly, some speakers were able to provide examples of more verbal gestures than others. Finally, it should be underscored that Wolof speakers recognize the phenomenon even though they do not have a name for it, and have some sense of their sociolinguistic functions. They told us that the use of verbal gestures is rude, a sign of laziness, and was typical of teenage boys (although we observed them used by speakers of both genders, both young and old).

We further conducted structured interviews in Wolof that were designed to elicit verbal gestures indirectly. We were active participants in these conversations and asked yes-no questions and questions that were aimed at eliciting positive or negative evaluation. Once we had established a working inventory of verbal gestures, we recorded their use in spontaneous, unstructured conversations, in conversations where we were full participants and in conversations where we were observers, such as in documenting cooking techniques where the conversation was conducted between the women cooking. Due to the social structure in Ronkh, these were primarily conversations between women, but we do have conversations with mixed gender.

Having established a working inventory of Wolof gestures in elicitation, while in Ronkh, we created two audio tests for recognition of different verbal gestures by extracting samples from other recordings (from elicitation sessions and from unstructured conversations) and playing them back to other speakers. These test recordings included utterances of the same verbal gesture produced by different speakers and of different gestures produced by one and the same speaker. The first test consists of 39 different tokens; the second of 15. Even without any supporting context, speakers readily identified the different sounds. Finally, we reviewed all field recordings with a native speaker of Wolof from Dakar, now living in Chicago, who not only verified the interpretation but also identified additional verbal gestures from our recordings of spontaneous speech. She was not present at any of the recording sessions and has never been to Ronkh. While in Ronkh we also recorded animal calls and conducted a similar playback test. Speakers accurately identified all animal calls and did not mistake them for the verbal gestures we describe here, nor did they interpret verbal gestures as animal calls. Our research shows no overlap between these two categories in the speech community of Ronkh.

3. The Wolof sound system

3.1. The phonemic inventory

Before moving to the inventory of Wolof verbal gestures, it is useful to review the Wolof phonemic system. The short vowels are provided in Table 1, following Ka (1994) and the short consonants in Table

2, adapted from Ka (1994) and Torrence (2005). Wolof makes a phonemic distinction between long and short vowels except for /ʌ/, and long /ə/ is rare (Torrence 2005).

i								u
	e						o	
		ɛ		ə		ɔ		
			a		ʌ			

Table 1: Inventory of short vowels in Wolof

The consonant inventory is summarized in Table 2. Consonants are similarly phonemically long or short, with the exception of fricatives, affricates and the prenasalized stops.

	Labial	Alveolar	Palatal	Velar	Uvular	Glottal
Stop	p b	t d	c j	k g	q	ʔ
Fricative	f	s		x	(χ)	(h)
Nasal	m	n				
Prenasalized	mb	nd	nj	ng		
Glide			y	w		
Liquid		l r				
Affricate					qχ	

Table 2: Inventory of short consonants in Wolof

As is clear from Tables 1 and 2, Wolof does not have clicks in its phonemic inventory. The clicks that we identify as verbal gestures in Section 3.2 do not combine with one another or with other phonemes to make words; they are segments which stand outside of the phonemic inventory and outside of the lexicon. In this respect they are both extra-phonemic and extra-grammatical.

3.2. Verbal gestures in Wolof

In Table 3 we present an overview of a tentative inventory of verbal gestures in Wolof and then discuss each gesture in turn. Verbal gestures are distinguished by place and manner of articulation. The vocalizations may optionally be accompanied by more or less conventionalized hand and/or facial gestures, but they are unambiguously understood without any visual cues.

GLOSS	DESCRIPTION	MANNER	MEANING
waaw	palatal/velar click (mouth closed)	single instance	'yes'
	lateral click	repeated	
	alveolar click	repeated	
déedéet	bilabial-dental click	repeated twice	'no'
ciipetu	bilabial-dental click	elongated suction (through teeth)	'I don't like this'
"hiss" ("the pis")	[s:]	elongated	attention-getting
waalis	whistle-1	flat intonation	attention-getting
	whistle-2	rising intonation	calling
	whistle-3	rising-falling intonation	expression admiration
"hmm"	nasal sound [m̥mʔ] (mouth closed)		'watch out, you are in trouble'

Table 3: Verbal gestures in Wolof

The verbal gestures given in Table 3 are distinctive and contrastive; speakers do not confuse one for another and distinguish them easily. This tentative inventory can probably be expanded and does not include verbal gestures not heard in Ronkh. Jane Mitsch (p.c.) reports hearing some but not all of the verbal gestures in parts of southern Senegal, and further reports the use of additional verbal gestures not known in the north. Thus Table 3 does not provide a comprehensive account for all Wolof.

Waaw

The verbal gesture glossed as *waaw* 'yes' in Wolof has three variants which appear to be: (i) a palatal/velar click, produced with the lips closed;[3] (ii) a lateral click; and (iii) an alveolar click. Consultants found no difference in meaning between these three articulations; some even identified them as synonyms. There is a general, impressionistic sense that some speakers may prefer one over the other, but some speakers use all three. We also found variation among male siblings as to which was preferred (for example, in one family one brother used the lateral click most frequently while the other used the palatal-velar click.) Thus they appear to be in free variation. When uttered once, this verbal gesture is interpreted as 'yes' and speakers readily defined it as Wolof *waaw*. When repeated, it is interpreted as 'I see', 'I get it'. It is also used as a backchannel, when uttered repeatedly by one interlocutor while the other is speaking.

Déedéet

The verbal gesture meaning 'no' is a bilabial-dental click, produced by sucking the air in through the lips pressed against the teeth, similar to the bilabial click. There is no rounding of the lips. Again, as with the *waaw* gesture, speakers readily defined this as *déedéet* 'no', quickly produced it when asked for the gesture meaning *déedéet*, and correctly identified it on an audio recording with no supporting context.

Ciipetu/cipetu

This gesture has the same place of articulation as the *déedéet* click but the manner differs: it is elongated with pursed lips which move to the side. It means 'I don't like X'. The Wolof word *ciipetu* (alternatively spelled and pronounced *cipetu* or *kipetu*) refers specifically to this gesture, a fact which underscores how prevalent its use is. The semantics of *ciipetu* is somewhat vague, in the sense that it is not an exact substitute for 'I don't like' but rather signals negative evaluation; see Section 4, examples (7)-(8).

Waalis

Waalis refers to a whistle. It is produced with four different intonation contours, each of which has a different interpretation: (i) with *flat, level intonation*, to get attention; (ii) with *rising intonation*, used to call out to someone; (iii) with *rising-falling intonation*, to indicate admiration; and finally (iv) with *rising-falling intonation*, to express relief. This last use of *waalis* requires further investigation; it was not recorded in Ronkh but suggested by our consultant from Dakar.

Hiss

The *hiss* (or the *pis* in Dakar Wolof) is uttered as an elongated [s:], sometimes with a bilabial onset [ps:] in Dakar Wolof. This verbal gesture is widespread throughout Senegal and very prevalent on the streets, used to attract attention for any variety of purposes.

[3]This click uses the ingressive airstream mechanism, just like regular clicks. The oral cavity is closed in two places: the lips and the palate or the velum. The tongue acts as a piston, with the only difference from velaric ingressive clicks being the path through which air flows into the oral cavity: in clicks produced with the mouth open the air flows in through the mouth, and in this click it flows in through the nasal cavity.

Hmmm

This verbal gesture, a nasal sound [m̥m̥ʔ] uttered with the mouth closed, was identified by consultants in recordings of spontaneous speech as signaling a warning, meaning roughly 'watch out, you're in trouble', a signal to the hearer that she or he should take care to not annoy the speaker.

3.3. Discussion

The verbal gestures outlined in Table 3 are widely and frequently used in Wolof. They are conventionalized and recognized by speakers without hesitation. The clicks used as verbal gestures differ from those found in many other languages in that they are contrastive. Note that an increase in amplitude and duration iconically signals intensification, i.e., longer and/or louder production of the *ciipetu* gesture signals 'really don't like'. By the same token, rapidly uttered lateral (*waaw*) clicks, produced with reduced amplitude, are backchannels, and not substitutes for 'yes'.

4. Pragmatic functions

Verbal gestures serve a number of different discourse functions in Wolof, including signaling assent, dissent, or disappointment, as well as getting attention and managing turn-taking. Their use is conventionalized and they are easily interpreted out of context, as evidenced in audio tests where speakers were asked to identify gestures from an audio recording of the gesture alone without any supporting linguistic or extra-linguistic context. Verbal gestures are so prevalent in Wolof conversation that one must control them (in terms of production and processing) in order to be truly fluent. Significantly, their pragmatic functions are conventionalized and thus subject to testing, as we discuss in this section, where we illustrate the result of a series of pragmatic tests with the verbal gestures. This represents the first step in what will be a longer study of the meanings associated with verbal gestures in Wolof with the goal of teasing apart the semantic and pragmatic differences between linguistic expressions and verbal gestures, especially in cases where a verbal gesture seems to have a linguistic counterpart (such as the lateral click and *waaw*). As a preliminary step in testing the pragmatics of verbal gestures, we took excerpts from our recordings and manipulated responses to test felicity conditions. Considerably more research is required with the close analysis of the use of verbal gestures in unstructured conversations in a range of registers and genres to more fully describe their pragmatics and discourse functions.

It appears that Wolof verbal gestures carry illocutionary force. When speakers use the verbal gestures and simultaneously express denial of the gestures' illocutionary force, infelicity results. Thus, for example, one cannot utter a *hiss* and then deny that one was trying to get the interlocutor's attention. This indicates that the force of the gesture cannot be cancelled. This is further illustrated in (1). If Binta responds to Fanta's question 'do you like maafe?' with a *waaw* click, she cannot then deny liking maafe (a traditional Senegalese dish):

(1) Fanta: Bëgg na-a maafe. Ndax nga bëgg maafe?
like *na*-1SG maafe Q C-2SG like maafe
'I like maafe. Do you like maafe?'
Binta: */single waaw click/* #Déedéet, bëgg-u-ma maafe.
[yes] no like-NEG-1SG maafe
#'No, I don't like maafe.'

As indicated here, the response 'No, I do not like maafe' is infelicitous after the *waaw* click, which signals a positive response to the question. This is further illustrated in (2), with a different verbal gesture, the repeated lateral click signaling 'I understand':

(2) Fanta: Am-na-∅ ay problem ci dispensaire.
have-*na*-3SG INDEF.PL problem LOC clinic

'There are many problems with the clinic.'

Binta: */repeated waaw click/* Dëgg-u-ma.
[I understand] understand-NEG-1SG
#'I don't understand'

Here, similar to (1), the verbal gesture is interpreted as semantically equivalent to indicating agreement or understanding. Similar issues arise in (3) with the backchannel click; in (4) with the *déedéet* 'no' click; in (5) with the *hiss*; and in (6) with the warning nasal. In each of these instances, the verbal gesture has illocutionary force:

(3) Fanta: Am-na-∅ ay problem ci *dispensaire* te ...
have-*na*-3SG INDEF.PL problem LOC clinic CONJ
'There are many problems with the clinic...'

Binta: */backchannel* click/
'[mhmm]'

Fanta: #Ah, dem-al
ah go-IMP-3SG
#'Ah, go ahead.'

Here in (3) Binta is understood as backchanneling to say 'yes, I understand, please continue.' Backchannels are not attempts to take the floor and thus a turn, but rather encourage the current speaker to continue talking (Duncan & Niederehe 1974:237; Knight 2009:39; Yngve 1970). Therefore, for Fanta to reply by saying 'go ahead', i.e., 'you can take a turn', is infelicitous. Similarly in (4), the use of the *déedéet* click is understood as signaling 'no'; to then reply 'yes' is contradictory:

(4) Fanta: Bëgg na-a maafe. Ndax nga bëgg maafe?
like *na*-1SG maafe Q C-2SG like maafe
'I like maafe. Do you like maafe?'

Binta: */Déedéet click/* #Waaw bëgg-na-a maafe.
[no] yes like-*na*-1SG maafe
#'Yes, I like maafe'

A similar example is seen in (5) with the *hiss*, used to attract attention. Since this verbal gesture has illocutionary force, it cannot be denied:

(5) Fanta: */sssss/*
Binta: *Qu'est* ce que c'est?
'What is it?'
Fanta: #Dara.
#'Nothing.'

An analogous situation is found in (6), with the emphatic nasal used to signal a warning; this warning cannot (felicitously) be denied:

(6) Fanta: /Mm?/
Binta: Ndax lan napp nga nu?
Q what warn 2SG-SBJ 1PL.OBJ
'What did you warn me for?'

(7) Fanta: #Napp-u-ma.
warn-NEG-1SG.SBJ
#'I didn't warn you.'

As the data in examples (1)-(6) show, the verbal gestures have illocutionary force. They cannot be felicitously denied or negated.

Interestingly, negative discourse gives rise to ambiguity in the interpretation of *ciipetu*, which can be understood either as negating the underlying proposition or as signaling reinforcement of the speaker's negative evaluation of something. This is illustrated in (8), where the *ciipetu* response can be interpreted as either signaling that Binta agrees that the clinic has problems, or disagrees and thinks it does not:

(8) Fanta: Am-na-∅ ay problem ci dispensaire.
have-*na*-3SG INDEF.PL problem LOC clinic
'There are many problems with the clinic.'
Binta: */ciipetu/*

Reading A: Binta agrees with the negative assessment of the clinic.
Reading B: Binta is expressing disagreement with Fanta's assessment.

Positive contexts, however, do not give rise to this ambiguity, as in (8):

(9) Fanta: Dispensaire bi baax na-∅.
clinic DEF.SG good *na*-3SG
'The clinic is great.'
Binta: */ciipetu/*

Here Binta's response can only be interpreted as indicating disagreement with Fanta, namely, Binta does not think the clinic is great. The data suggest that *ciipetu* is pragmatically ambiguous in the sense of Sweetser (1990): it is able to target multiple levels of interpretation. In (8) ciipetu targets the propositional level of the discourse and negates the proposition that the clinic is good. In reading A of sentence (8), *ciipetu* targets the level of the speech act to signal agreement with Fanta's negative assessment.

There is a also a question of whether the inferences associated with Wolof verbal gestures are at-issue or projective in nature. However, testing whether this holds for Wolof presents a particular challenge, simply because of the nature of established tests for projective meaning. An implication is said to project if and only if it survives as an implication when the expression that triggers it occurs under the scope of an entailment-cancelling operator (Simons et al. 2011). All of these are sentential operators, however, and therefore do not apply to extra-grammatical verbal gestures. Verbal gestures resist embedding in sentences, as shown in (10):

(10) a. Binta wax na-∅ waaw.
Binta say *na*-3SG yes
'Binta said yes.'
b. #Binta wax na-∅ *lateral click*.
Binta say *na*-3SG [lateral click]
#'Binta said CLICK.'

This is analogous to English, where lexical items can be quoted (e.g. *He said "yes, I'll go"*) but not sounds, (*?He said 'duh'*). Examples like this are more acceptable to speakers if 'said' is replaced by 'went' or 'like' (compare: *He's like "duh"* or *He went "duh"*). Similarly in Wolof, substituting 'do' for 'say' in (9.2) makes it grammatical (11):

(11) Binta def na-∅ *lateral click*.
Binta make *na*-3SG [lateral click]
'Binta went CLICK.'

However, (11) is still strange in the given context: it does not directly answer what is at issue (whether Binta responded yes or no), but rather asserts that she produced a lateral click. Further research is needed to explore the relation between lexical items and the verbal gestures that are sometimes substituted for them.

5. Conclusion

In the present paper we identify a category of verbal gestures, characterized by the fact that they are both extra-phonemic and extra-grammatical and we present a preliminary inventory of verbal gestures in Wolof. This analysis leads to two interrelated questions: what is the full inventory of verbal gestures in Wolof, and how do we define the limits of the category? To return to the discussion of the linguistic—paralinguistic continuum, the elements in the linguistic end of that continuum are relatively well delimited, but it is less clear how to delimit the category of verbal gestures. We distinguish them here from other gestures by accompanying vocalization, and limit the inventory of Wolof verbal gestures to those that are conventionalized. The rich system of verbal gestures in Wolof is striking in its very complexity. There is a complicated set of contrastive clicks, despite the fact that there are no clicks in the language's phonemic system. Gil (2011) suggests that the widespread use of paralinguistic clicks in Africa may in fact be an areal phenomenon, and it is easy to hypothesize that the clicks used as phonemes in some African languages may have spread as non-phonemes to others. At present, however, the actual use of clicks and other verbal gestures cross-linguistically is an open question and requires further research. In addition, further work is needed on the actual discourse functions of verbal gestures, and how they compare cross-linguistically as well. Our next steps include collecting more data, elicited and in spontaneous conversation in Wolof, and gathering data for studying the use of verbal gestures in other languages.

References

Ameka, Felix (1992). Interjections: The universal yet neglected part of speech. *Journal of Pragmatics* 18, 101–118.

Baglini, Rebekah (to appear). Reduced clausal structure in comparatives: Evidence from Wolof. *Proceedings of BLS 38*.

Childs, G. Tucker (2003). *An introduction to African languages*. John Benjamins, Amsterdam.

Church, Eric (1981). *Le système verbal du wolof*. Université de Dakar, Documents Linguistiques.

Creissels, Denis & Stephane Robert (1998). Verb morphology and the discourse organization of the utterance: The example of Tswana and Wolof. *Faites de Languages* 11-12, 161–178.

Dialo, Amadou (1985). *Elḿents expressifs du wolof contemporain: gestes, signaux oraux, unitś significatives nasalisés, interjections, onomatopés, impressifs.*, vol. Langues nationales au Sénégal; W. 27. Centre de linguistique appliquée de Dakar, Dakar:.

Duncan, Starkey & G. Niederehe (1974). On signaling that it's your turn to speak. *Journal of Experimental Social Psychology* 10:3, 234–247.

Dunigan, Melynda B. (1994). *On the clausal structure of Wolof*. Ph.D. thesis, University of North Carolina at Chapel Hill, Chapel Hill, NC.

Fries, Charles C. & Kenneth L. Pike (1949). Coexistent phonemic systems. *Language* 25, 29–50.

Gardner, Rod (2001). *When listeners talk. Response tokens and listener stance.* John Benjamins.

Gil, David (2011). Para-linguistic usages of clicks. Dryer, Matthew S. & Martin Haspelmath (eds.), *The World Atlas of Language Structures Online*, Max Planck Digital Library, Munich, chap. 142. Available online at http://wals.info/chapter/142 Accessed on 2012-12-18.

Harris, Zellig S. (1951). *Methods in structural linguistics*. Univesity of Chicago Press, Chicago.

Ka, Omar (1994). *Wolof phonology and morphology*. University Press of America, Lanham, MD.

Knight, Dawn (2009). *A multi-modal corpus approach to the analysis of back channeling behavior*. Ph.D. thesis, University of Nottingham.

Kockelman, Paul (2003). The mmeaning of interjections in Q'eqchi' Maya. *Current Anthropology* 44:4, 467–490.

Ladefoged, Peter (1982). *A course in phonetics*. Harcourt Brace, Orlando, 2nd edition edn.

Lewis, M. Paul, Gary F. Simons & Charles D. Fennig (eds.) (2013). *Ethnologue: Languages of the World, Seventeenth edition*. SIL International, Dallas, Texas. Online version: http://www.ethnologue.com.

Mangold, Max (1977). *Wolof pronoun verb patterns and paradigms. Forschung zur Anthropologie und Religionsgeschichte*, vol. Band 3. Homo et Religion, Saarbrucken.

Martinović, Martina (2013). The subject/non-subject asymmetry in Wolof. Keine, Stefan & Shayne Sloggett (eds.), *Proceedings of the 42nd Annual Meeting of the North East Linguistic Society*, GLSA Amherst, vol. 1, 309–322.

Martinović, Martina (to appear (a)). The topic-comment structure in copular sentences: Evidence from Wolof. *Proceedings of the 39th Annual Meeting of the Berkeley Linguistic Society.*

McLaughlin, Fiona (2001). Dakar Wolof and the configuration of an urban identity. *Journal of African Cultural Studies* 14:2, 153–172.

McLaughlin, Fiona (2008). On the origins of urban Wolof: Evidence from Louis Descemet's 1864 phrase book. *Language in Society* 37:5, 713–735.

Munro, Pamela & Dieynabe Gaye (1991). *Ay Baati Wolof: A Wolof dictionary*, vol. 19. UCLA Occasional Papers in Linguistics. Revised and republished in 1997.

Ndiaye, Moussa D. (1994). Outline of a morphology of Wolof. *Revue québécoise de linguistique* 23:1, 125–137.

Ndiaye, Moussa D. (2004). *Eléments de morphologie du wolof: méthodes d'analyse en linguistique*. LINCOM Studies in African Linguistics 62, LINCOM Europa, Munich.

Ogden, Richard (2001). Turn transition, creak and glottal stop in Finnish talk-in-interaction. *Journal of the International Phonetic Association* 31:1, 139–152.

Perrino, Sabina (2005). Participant transposition in Senegalese oral narrative. *Narrative Inquiry* 15:2, 345–375.

Perrino, Sabina (2007). Cross-chronotope alignment in Senegalese oral narrative. *Language and Communication* 27:3, 227–244.

Rickford, J.R. & A.E. Rickford (1976). Cut-eye and suck-teeth: African wword and gestures in new world guise. *The Journal of American Forklore* 89, 294–309.

Robert, Stéphane (1991). *Approche énonciative du système verbal: le cas du wolof*. Éditions du Centre National de la Recherche Scientifique, Paria.

Robert, Stéphane (2006). Deictic space in wolof: Discourse, syntax and cognitive categories. Hickmann, Maya & Stéphane Robert (eds.), *Space in languages: Linguistic systems and cognitive categories*, John Benjamins, Amsterdam, 155–174.

Russell, Margaret A. (2006). *The syntax and placement of Wolof clitics*. Ph.D. thesis, University of Illinois at Urbana-Champaign, Urbana, IL.

Simons, Mandy, Judith Tonhauser, David Beaver & Craige Roberts (2011). What projects and why. *Proceedings of SALT 20*.

Sweetser, Eve (1990). *From etymology to pragmatics: Metaphorical and cultural aspects of semantic structure*. Cambridge University Press.

Torrence, Harold (2005). *On the distribution of complementizers in Wolof*. Ph.D. thesis, University of California, Los Angeles, Los Angeles, CA.

Torrence, Harold (2012a). *The clause structure of Wolof: insights into the left periphery*. John Benjamins Publishing, Amsterdam/Philadelphia.

Torrence, Harold (2012b). The morpho-syntax of silent wh-expressions in Wolof. *Natural Language and Linguistic Theory* 30:4, 1147–1184.

Torrence, Harold (2013a). A promotion analysis of Wolof clefts. *Syntax* 16:2, 176–215.

Torrence, Harold (2013b). The morpho-syntax of Wolof clefts: Structure and movement. Hartmann, Katharina & Tonjes Veenstra (eds.), *Cleft Structures*, John Benjamins Publishing, Amsterdam.

Wright, Melissa (2007). Clicks as markers of new sequences in English conversation. Trouvain, Jürgen & William J. Barry (eds.), *Proceedings of the 16th International Congress of Phonetic Sciences*, Saarland University, Saarbrücken, 1069–1072.

Yngve, Victor (1970). On getting a word in edgewise. *Papers from the Sixth Regional Meeting of the Chicago Linguistic Society*.