The semantics of quotative ideophones

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Abstract

Ideophones are grammatically marked words which iconically convey sensory experiences. Ideophones marked with quotative morphology are cross-linguistically common and suggest a compelling link between ideophones and the semantics of speech reports. Based on a data from Wolof (Atlantic: Niger-Congo), this talk argues that ideophony and quotation both involve *linguistic depiction*: they invoke a similarity relation between a described event and utterance-level properties of a linguistic object used to depict it.

Linguistic depiction is formalized using the logical framework of Potts (2007) which adds utterances to the model: objects of type u corresponding to well-formed linguistic expressions. A quotative marker can then be defined as a grammaticalized depictive function linking events and utterances on a contextually-determined similarity axis; thus, direct quotations depict speech events by replicating salient aspects of them (words used, intonation, gesture, propositional content, etc). An ideophone, on the other hand, describes a property of events which is depictively linked to its phonological form via conventionalized sound-symbolic mappings. When a grammaticalized depictive (quotative) marker takes an ideophonic utterance as its complement, it preserves the conventionalized depiction entailed by the ideophone's lexical entry.

By establishing a unified logical basis for linguistic depiction, we can link the widespread phenomenon of quotatively-marked ideophones to these words' distinctive lexical properties—a first step towards better understanding this rich but underutilized empirical field.

Introduction Ideophones are marked words which iconically convey sensory experiences (Dingemanse, 2012). By reflecting some aspect of their meaning through their phonological form, the form-meaning mapping for ideophones is not entirely arbitrary. Quotatively-marked ideophones (QMIs), which surface with a quotative predicate marker (QM), are cross-linguistically common (Plank, 2005; Güldemann, 2008) and provide a compelling link between ideophones and the semantics of speech reports (Henderson, 2015). Using Wolof (West Atlantic, Niger Congo; Eth: [wol]) as a case study, I draw on prior accounts of the semantics of speech reports and demonstrations to provide an empirically satisfying formal analysis of both QMIs and non-QM ideophones.

Quotation, manner, similarity Wolof ideophones are syntactically defective: they cannot function as matrix predicates on their own. Thus, they are most commonly realized in the scope of a QM *ne* 'say' (1-a)-(1-b), otherwise implicated in direct (2-b) and indirect (2-a) speech reports (Dialo, 1985; Munro and Gaye, 1991).[1] Ideophones make up a large subset of the lexicon, but are more common in spoken language and carry significant social meaning and expressiveness (Irvine, 1982).

(1) a. *Bunt bi* ***ne*** *ràpp*
Door DEF **say** IDEO
The door was tightly closed.

b. *Mu* ***ne*** *pat-pat*
3SG.SBJ **say** IDEO
S/he shook (with fear or cold).

(2) a. *Mu* ***ne*** *du lekk yapp*
3SG.SBJ **say** NEG eat meat
He said he didn't eat meat

b. *Mu* ***ne****: "Lekk-u-ma yapp."*
3SG.SBJ **say** eat-NEG-1SG meat
He said, "I didn't eat meat."

It has long been suggested that direct quotation involves not just description but **depiction**, by recreating salient aspects of a speech event through the **utterance** of a descriptive linguistic object(Clark and Gerrig, 1990). Spoken languages often make use of QMs which introduce a broader array of demonstrations: e.g. besides verbatim quotation, English *be like* can convey internal monologue or reaction (3) and even gestures or facial expressions (4) (Davidson, 2015). Davidson posits that verbatim speech reports are a subset of demonstrations; demonstrations are indexed to events and replicate some salient properties (determined contextually) of the target event.

(3) Sam was like, *no way, dude*.

(4) Sam was like, [*shakes head*].

Cross-linguistically widespread grammaticalization patterns seem to support the demonstration-based account: complementizers and QMs like *ne* often evolve from markers of similarity or manner deixis (Güldemann, 2008), as illustrated in Table 1. The grammaticalization facts suggest that similarity is a natural means of relating demonstrations to linguistic descriptions, through quotation (utterance demonstrations), event demonstrations, or QMIs.

A puzzle But Wolof *ne* constructions like (1)-(2) are more constrained than Davidson's demonstration-based approach would predict. First, gesture, facial expression, and pantomime cannot be introduced by *ne*, despite the prominent role these paralinguistic ele-

[1] 1 = first person, 3 = third person, DEF = definite, FIN = finite, IDEO = ideophone, IMP = imperative, NEG = negative, SBJ = subject, SG = singular.

Table 1: Etymologically related Wolof *n-* forms

Type	Form	Example	Translation
Similiative	*ni*	*Fec-al* ***ni*** *Ali!*	(Dance-IMP like Ali!)
Manner	*ni*	***Ni*** *la lekk.*	(Like this, s/he ate)
Manner free rel.	*ni*	***Ni*** *mu fec* . . .	(How s/he danced . . .)
Quotative predicate	*ne*	(1-a)-(2-b)	
Complementizer	*ne*/*ni*	*Mu wax* ***ne*** . . .	(S/he said that . . .)

ments play in Wolof discourse (Grenoble et al., 2015). Second, although *ne* is obligatory with some ideophones (like *pat-pat* in (1-b), a large subset also occur in **co-verb** constructions, functioning as adverbial manner modifiers to particular lexical verbs (Torrence, 2013), e.g. *ub* 'close' + *ràpp* in (5). Co-verb selection indicates that ideophones have descriptive lexical content beyond demonstration. The challenge is to explain how descriptive co-verb predication and QM predication differ, yet give rise to synonymous ideophonic sentences.

(5) *Bunt bi* ***ub****-na-∅* *ràpp*
Door DEF **close**-FIN-3SG IDEO
The door was tightly closed. co-verb alternant of (1-a)

Analysis I adopt a framework inspired by Potts (2007) which allows us to access utterance-level properties of linguistic objects. Linguistic objects are defined as pairs containing a surface representation and a semantic representation (6). We add a semantic type u for utterances, assigned to outputs of the semantic quotation function(7). A second operation takes interpreted utterances and returns its underlying semantic representation (8).

(6) The grammar $\mathcal{G}$ generates triples $\langle \Pi; \alpha; \sigma \rangle$ in which Π is a phonological representation, and α is a semantic representation of type σ.

(7) If $P = \langle \Pi; \alpha; \sigma \rangle$ is well-formed then $\langle \Pi; \ulcorner \langle \Pi; \alpha; \sigma \rangle \urcorner; u \rangle$ is well formed.

(8) $\text{SEM}([[\langle \Pi : \ulcorner \langle \Pi : \alpha; \sigma \rangle \urcorner; u \rangle]]) = \alpha$

These formal tools are incorporated into a neo-Davidsonian event semantics framework: direct discourse markers can then be understood as relating utterances to event descriptions. A general similarity function SIM (9) (from Umbach and Gust 2014), which holds of two arguments α and β provided they are similar along a dimension F, is proposed to be the semantic kernel that unifies *ne* and related forms in Table 1).

(9) $\lambda\alpha\lambda\beta.\text{SIM}(\alpha, \beta, F)$
"α resembles β in terms of F" similarity function (Umbach and Gust, 2014)

The backbone of linguistic depiction is a particular variant of the (9) given in (10), in which the similarity relation links an event property to to utterance-level properties of a linguistic object which depicts it.

(10) Depictive similarity function: $\lambda u \lambda e.\textsc{sim}(e, u, F)$

As reflected in the denotations in (11), both ideophonic and quotative *ne* embed the function in (10) and select for a complement of type u. This correctly captures the fact that *ne*'s complement must be linguistic, not gestural, and links QMIs' depictive nature to a more basic similarity relation. But they differ in two respects. The first difference is that (11-b) also takes a contextually-determined predicate (11-b). The second—and more critical—difference lies in $\textsc{sem}([[u]])$—the semantic representation extracted from an interpreted utterance: with (11-b), $\textsc{sem}([[u]])$ returns a propositional argument of P; in (11-a) $\textsc{sem}([[u]])$ it returns a property of events.

(11) Two varieties of QM

a. $[[ne_{\text{ID}}]] = \lambda u \lambda e.\textsc{sim}(e, u, F) \wedge \textsc{sem}([[u]])$ ideophonic *ne*

b. $[[ne_{\text{QUO}}]] = \lambda u \lambda e.\textsc{sim}(e, u, F) \wedge \underline{P_c}(\textsc{sem}([[u]]))$ quotative *ne*

To see how (11-a)-(11-b) capture *ne*'s dual function as quotative and ideophonic marker, consider the following derivations. Because $\textsc{sem}(u)$ is of type t in (12), P is interpreted as a contextually-appropriate propositional attitude predicate (here, *say*).

(12) $[[ne_{\text{QUO}}]](\ulcorner\text{lekk-u-ma yapp}\urcorner)$ derivation of (2-b)
$= \lambda u \lambda e.\textsc{sim}(e, u, F) \wedge P_c(e)(\textsc{sem}([[u]])(\ulcorner\text{lekk-u-ma yapp}\urcorner)$
$= \lambda e.\textsc{sim}(e, \ulcorner\text{lekk-u-ma yapp}\urcorner, F) \wedge P_c(e)(\textsc{sem}([[\ulcorner\text{lekk-u-ma yapp}\urcorner]])$
$= \lambda e.\textsc{sim}(e, \ulcorner\text{lekk-u-ma yapp}\urcorner, F) \wedge P_c(e)(\neg\exists e'.\textbf{eat}(e') \wedge \textbf{Ag}(I) \wedge \textbf{Th}(\textit{meat}))$

Assuming that ideophones describe properties of events, $\textsc{sem}(u)$ in (13) returns a property of events instead of a proposition. This event description is added to the depictive function in the first conjunct, leading to an expression which conveys information about an event using both traditional description and linguistic depiction.

(13) $[[ne_{\text{ID}}]](\ulcorner\text{ràpp}\urcorner)$ derivation of (1-a)
$= \lambda u \lambda e.\textsc{sim}(e, u, F) \wedge \textsc{sem}([[u]])(\ulcorner\text{ràpp}\urcorner)$
$= \lambda e.\textsc{sim}(e, \ulcorner\text{ràpp}\urcorner, F) \wedge \textsc{sem}([[\ulcorner\text{ràpp}\urcorner]])$
$= \lambda e.\textsc{sim}(e, \ulcorner\text{ràpp}\urcorner, F) \wedge \lambda e'.\textbf{close-tight}(e')$
$= \lambda e'.\textsc{sim}(e', \ulcorner\text{ràpp}\urcorner, F) \wedge \textbf{close-tight}(e')$

We can now see the logical link between quotation and ideophony: just as a quoted utterance bears iconic resemblance to a reported speech event, an ideophonic utterance bears iconic resemblance to some non-speech event.

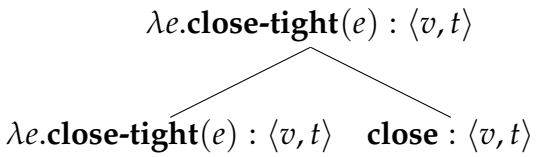
A puzzle explained Ideophonic meaning is divided across two different levels: the descriptive (in the lexicon) and the iconic (at the utterance level). I argue that co-verb and *ne* constructions reflect predication at these two levels. A co-verb relationship holds of an ideophone and a lexical verb if the latter's extension subsumes that of the former. This condition results in the observed limits on collocation: e.g. the ideophone *ràpp* (16) modifies no verb besides *ub* 'close' (17).

The compositional rule which governs ideophonic modification (unique to this construction: productive modifiers are obligatorily expressed through relative-clause like constructions in Wolof) ensures that the more specific description—the ideophones'—is

inherited by the dominating node (14). The fact that the lexical verb serves only to license the ideophone but contributes nothing semantically might seem odd, but is actually consistent with the 'referential redundancy' reported to characterize ideophonic modifiers cross-linguistically (Samarin, 1978; Childs, 1994, c.f.),

(14) a. $[[\textit{ràpp}]]([[\textit{ub}]])$ derivation of (5)

b.



(15) $[[\textit{ñomm}]] = \lambda e.\textbf{sudden-onset-of-silence}(e)$ ideophone (non-modifier)

(16) $[[\textit{ràpp}]] = \lambda e.\textbf{close-tight}(e)$ modifier of (17)

(17) $[[\textit{ub}]] = \lambda e.\textbf{close}(e)$ verb

Contrast co-verb composition in (14) with the alternative construction in (13), where *ràpp* is licensed by *ne*. We can now see why speakers judge these to be paraphrases of one another: they are descriptively equivalent expressions. The only difference is that (13) also contributes a linguistic depiction, relating the ideophone utterance to the described event.

I hypothesize that ideophones like *pat-pat* (the physical sensation of quivering, from cold or fear), *karaas-karaas* (the sound of shuffling) and *nomm* (15) are always expressed with *ne*, because their entailments do not totally converge with that of any lexical verb.

Conclusion Ideophones pose a compelling challenge for semanticists, given the non-arbitrary relationship between their form and meaning. The present work suggests that ideophones exist at the interface of quotation, manner deixis, and iconic depiction, and can be understood using formal tools previously applied to each phenomenon alone. The proposed analysis successfully accounts for both QM and co-verb ideophones in Wolof, and lays the foundation for future semantic work on this rich and underutilized empirical field.

Childs, Tucker. 1994. African ideophones. In *Sound symbolism*, eds. Leanne Hinton, Johanna Nichols, and John J Ohala, 178–204. Cambridge: Cambridge University Press.

Clark, Herbert H, and Richard J Gerrig. 1990. Quotations as demonstrations. *Language* 764–805.

Davidson, Kathryn. 2015. Quotation, demonstration, and iconicity. *Linguistics and Philosophy* 38:477–520.

Dialo, A. 1985. *Éléments expressifs du Wolof Contemporain*, Vol. 27. Dakar: Centre de linguistique appliquée de Dakar.

Dingemanse, Mark. 2012. Advances in the cross-linguistic study of ideophones. *Language and Linguistics Compass* 6:654–672.

Grenoble, Lenore A, Martina Martinovic, and Rebekah Baglini. 2015. Verbal gestures in wolof. In *Selected Proceedings of the 44th Annual Conference on African Linguistics*, ed. Ruth Kramer et al., 110–121.

Güldemann, Tom. 2008. *Quotative indexes in African languages: a synchronic and diachronic survey*, Vol. 34. Berlin: Walter de Gruyter.

Henderson, Robert Martin. 2015. Pluractional demonstrations. Handout presented at Logic and Engineering of Natural Language Semantics 12 (LENLS 12).

Irvine, Judith T. 1982. Language and affect: Some cross-cultural issues. *Contemporary Perceptions of Language: Interdisciplinary Dimensions, CURT* 31–47.

Munro, Pamela, and Dieynaba Gaye. 1991. *Ay baati Wolof: a Wolof dictionary*. Los Angeles: UCLA Occasional Papers in Linguistics.

Plank, Frans. 2005. Delocutive verbs, crosslinguistically. *Linguistic typology* 9:459–491.

Potts, Chris. 2007. The dimensions of quotation. In *Direct compositionality*, eds. Chris Barker and Pauline Jacobson, 405–431. Oxford: Oxford University Press.

Samarin, William J. 1978. Inventory and choice in expressive language. *Linguistic and Literary Studies in Honor of Archibald A. Hill* 2:313–329.

Torrence, Harold. 2013. *The clause structure of Wolof: insights into the left periphery*, Vol. 198 of *Linguistik Actuell/Linguistics Today*. Amsterdam: John Benjamins.

Umbach, Carla, and Helmar Gust. 2014. Similarity demonstratives. *Lingua* 149:74–93.