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 under-utilized 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 (QMs), 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 QMs 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 rèapp**
   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 QMs.

**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-

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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

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

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’ + rëpp 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-∅ rëpp**  
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 G generates triples ⟨Π; α; σ⟩ in which Π is a phonological representation, and α is a semantic representation of type σ.

(7) If P = ⟨Π; α; σ⟩ is well-formed then ⟨Π; Λ(Π; α; σ) −; u⟩ is well formed.

(8) \( \text{SEM}(\{\{Π : Λ(Π; α; σ) −; u]\}) = α \)

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 \( \text{SIM}(\text{from Umbach and Gust 2014}) \), 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) \( \lambda α\lambda β.\text{SIM}(α, β, F) \)  
\( “α \text{ resembles } β \text{ in terms of } F” \)  
similarity function \( \text{(Umbach and Gust, 2014)} \)

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.
returns a contextually-determined predicate (11-b). The second—and more critical—difference lies in the semantic representation extracted from an interpreted utterance: with (11-b), \(\text{SEM}([u])\) returns a propositional argument of \(P\); in (11-a) \(\text{SEM}([u])\) it returns a property of events.

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

\[
\[[ne_{ID}]([\text{\textit{lekk-u-ma yapp}}]) = \lambda u \lambda e. \text{SIM}(e, u, F) \land P_c(e)(\text{SEM}([u]))(\text{\textit{lekk-u-ma yapp}})
\]

\[
= \lambda e. \text{SIM}(e, [\text{\textit{lekk-u-ma yapp}}, F]) \land P_c(e)(\text{SEM}([\text{\textit{lekk-u-ma yapp}}])]
\]

\[
= \lambda e. \text{SIM}(e, [\text{\textit{lekk-u-ma yapp}}, F]) \land P_c(e)(\neg \exists e'. \text{eat}(e') \land \text{Ag}(I) \land \text{Th}(\text{meat}))
\]

Assuming that ideophones describe properties of events, \(\text{SEM}(u)\) 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.

\[
\[[ne_{ID}]([\text{\textit{rapp}}]) = \lambda u \lambda e. \text{SIM}(e, u, F) \land \text{SEM}([u])([\text{\textit{rapp}}])
\]

\[
= \lambda e. \text{SIM}(e, [\text{\textit{rapp}}, F]) \land \text{SEM}([\text{\textit{rapp}}])
\]

\[
= \lambda e. \text{SIM}(e, [\text{\textit{rapp}}, F]) \land \text{close-tight}(e')
\]

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 \textit{rapp} (16) modifies no verb besides \textit{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 con-
sistent with the ‘referential redundancy’ reported to characterize ideophonic modifiers
cross-linguistically (Samarin, 1978; Childs, 1994, c.f.),

(14) a. [r`app][ub]] derivation of (5)
b. λe.close-tight(e) : ⟨v, t⟩
   λe.close-tight(e) : ⟨v, t⟩ close : ⟨v, t⟩

(15) [[nomm]] = λe.sudden-onset-of-silence(e) ideophone (non-modifier)
(16) [[r`app]] = λe.close-tight(e) modifier of (17)
(17) [[ub]] = λe.close(e) verb

Contrast co-verb composition in (14) with the alternative construction in (13), where r`app
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.