Making new ideophones in Siwu

Creative depiction in conversation

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Ideophones are found in many of the world's languages. Though they are a major word class on a par with nouns and verbs, their origins are ill-understood, and the question of ideophone creation has been a source of controversy. This paper studies ideophone creation in naturally occurring speech. New, unconventionalised ideophones are identified using native speaker judgements, and are studied in context to understand the rules and regularities underlying their production and interpretation. People produce and interpret new ideophones with the help of the semiotic infrastructure that underlies the use of existing ideophones: foregrounding frames certain stretches of speech as depictive enactments of sensory imagery, and various types of iconicity link forms and meanings. As with any creative use of linguistic resources, context and common ground also play an important role in supporting rapid 'good enough' interpretations of new material. The making of new ideophones is a special case of a more general phenomenon of creative depiction: the art of presenting verbal material in such a way that the interlocutor recognises and interprets it as a depiction.

Keywords: ideophones, conversation, depiction, iconicity, semiotics, Siwu, creativity

If ideophonic neologisms could be documented and if we had better evidence than the statements of informants we would have a striking phenomenon in language.

(William Samarin 1970)

1. Introduction

In one of the earliest typological studies of the vivid sensory words we call ideophones today, Diedrich Westermann wrote, "Even if I can only support it with a few cases that I have experienced myself, I am sure that these vocal images

can always be created anew according to need, so that what we have here is an open area of word formation" (Westermann 1927:319). Though Westermann was never one for idle speculation, his evidence was only indirect and anecdotal, just like later claims by Ziervogel (1952) and Fortune (1971). Claims about ideophone creation drew sharp criticism from linguists like Samarin and Welmers, who emphasised the fact that they have "never been supported by any evidence whatsoever" (Samarin 1971:147) and that they "seem to be wild exaggerations" (Welmers 1973:463). In the following decades the topic of ideophone creation virtually disappeared from the literature.

Meanwhile the questions behind the claims still stand. In many languages, the number of ideophones is on a par with that of other major word classes such as nouns or verbs. Where do new ideophones come from? Can we capture instances of ideophone creation? If ideophones can be created anew, on what principles is their production and interpretation based? What are the implications for our understanding of creativity in language? Some ideophones show derivational relations to other words, most often verbs, and reduplication may turn ordinary words into ideophones (Childs 1989). The current paper focuses on new ideophones that are not clearly related to other lexical items. It is a case study of ideophone creation in a corpus of naturally occurring conversations in Siwu, a Kwa language of Eastern Ghana.

As ideophones are depictions in speech, ideophone creation is really an instance of iconic vocal representation, relying on an affordance of speech that is in principle available to members of any speech community (Bühler 1934; Werner and Kaplan 1963; Jakobson and Waugh 1979). So even though this is a study of ideophones (both creative and conventionalised) in one particular language, its results are of broader relevance. By analysing instances of ideophone creation and putting them in the context of the iconic affordances of speech, this study sheds light on the processes involved in the production and interpretation of creative vocal depictions. Depictions in language are often multimodal, involving contributions of multiple semiotic resources including speech, manual gesture and other forms of visible bodily behaviour (Dingemanse 2013). The present study focuses mainly on the vocal aspects of creative depictions.

^{1.} Original German: "Wenn ich es auch nur für einzelne, selbsterlebte Fälle beweisen kann, bin ich doch überzeugt, daß diese Lautbilder nach Bedarf immer neu gebildet werden, daß es sich hier also um ein nicht abgeschlossenes Gebiet der Wortschöpfung handelt."

Finding new ideophones

Studying how new words come into being is fraught with problems, as most acts of creativity take place unobserved by analysts. Early assertions about ideophone creation have rightly been treated with caution: the absence of directly recorded evidence and the lack of specific examples made it hard to verify the claims. The lack of reliable corpora is likely one of the main reasons for the fact that ideophone creation has been little studied.

In the absence of tools to study natural occurrences of ideophone creation, scholars have turned to lexical evidence, focusing on derivational processes involving existing words. In Zulu, a Bantu language of Southern Africa, many ideophones appear to have corresponding verbs, although the direction of derivation is often unclear (von Staden 1977). In Kisi, a Southern Atlantic language, ideophones can be formed from verbs by means of reduplication (Childs 1989). In Siwu, reduplication is also involved in the formation of new ideophones based on nouns and verbs, although here, as in Zulu, the direction of derivation is not always clear (Dingemanse 2011a; in press).

Such examples show that not all ideophones are created from scratch. Yet derivation at best shifts the problem to another part of the lexicon and hardly explains the origin of all ideophones, especially in languages with ideophone inventories running into the thousands. Unlike in Westermann's time, it is now possible to record and investigate language in the mode in which we naturally experience it: everyday informal conversation. If ideophone creation happens, we may expect it to occur in this context, and therefore also in a representative corpus of naturally occurring conversational data. Corpora allow us to move beyond anecdotal reports and make it possible to observe the phenomenon of ideophone creation more directly.

The corpus of Siwu conversations examined here forms a cross-section of informal social interaction among people who know each other well, in settings ranging from family compounds to public spaces. All recordings are made in the same village, a small community of about 200 households in Eastern Ghana. Do we find ideophone neologisms in this corpus, or are all ideophones existing, conventionalised forms? To answer this question, we rely on native speaker judgements. That people can reliably and consistently judge whether or not an ideophonic form exists as a word or not was independently established in a sorting task and in various other elicitation tasks (Dingemanse 2011a: Ch. 8–10).

In a corpus totalling about two hours (containing about 3000 utterances), ideophone tokens were identified based on formal and morphosyntactic criteria (Dingemanse 2011a: Ch. 6). In the corpus, 219 ideophone tokens were found, representing 105 ideophone types. All of these were independently checked with at least three Siwu speakers from the village, and the 60 most frequent were checked with 12 speakers. An ideophone was classified as conventionalised if, when presented without context, it was recognised as an existing Siwu word and assigned a consistent meaning. An ideophone was classified as creative if, when presented without context, it was not recognised as an existing word or not assigned a consistent meaning. Overall there was strong agreement in native speaker judgements.

Using these criteria, the great majority of the ideophones in the corpus was found to be conventionalised: speakers recognised them as existing words, were able to provide a meaning, and showed strong agreement in their judgements. The total number of conventionalised ideophone types in the corpus was 94. There were 11 ideophone types not recognised as existing words. Expressed as a percentage of tokens, 208 out of 219 ideophone tokens in the corpus, or 95%, are existing words. So, most of the time when speakers use ideophones in every-day discourse, they use forms that are conventionalised and known in the speech community. Still, there are also unrecognised forms. These are likely neologisms: unknown, unconventionalised ideophones that were newly created by the speaker. In the original conversations, these new forms were interpreted without a hitch. How is this possible? What techniques do speakers rely on to creatively depict sensory imagery with their voices, and how do their interlocutors manage to make sense of these new creations? Before going into these questions, we need to set the stage by sketching how conventionalised ideophones do their work.

3. How ideophones work

Ideophones can be succinctly defined as *marked words that depict sensory imagery* (Dingemanse 2012). They are *marked* in the sense that they stand out from other words, for instance through their special phonotactics and their susceptibility to expressive morphology like lengthening and reduplication. They are words that have a *depictive* mode of signification: they show rather than tell, depict rather than describe, enact rather than simply refer. Their meanings are in the domain of *sensory imagery*, broadly defined as perceptual knowledge derived from sensory perception of the environment and the body. These properties characterise the category of 'ideophone' as a comparative concept (Haspelmath 2010), making typological comparison possible: they capture the cross-linguistic centre of gravity of the phenomenon while leaving the details to be spelled out for individual languages. Let us consider some of these details for Siwu, illustrated by a first extract from the corpus.

Ata, his wife Afua, and Kuma are having a heated argument about what it is that geckos do to us in our sleep. According to Ata, at night, geckos insert their

tongue in our mouth and suck our blood. His interlocutors doubt this claim what kind of tongue do geckos have anyway? We start at the point where Ata argues that geckos have much longer tongues than the others might think. He first compares the gecko tongue to that of a pangolin, a creature known for its long tongue, and then illustrates the length of the gecko's tongue with a number of ideophonic forms.

Extract 1. Geckos 14-18

- 14 A э-bra i-à-hra ònyagemi (0.8) kùngɔ èmè sɔ- ehhh: PFOC-make it-FUT-make tongue way like QT uhm It'll rather make its tongue (0.8) like- uuh:
- 15 (0.8) nda- nda lo-rò ne-m> (0.5) kàyuɛsiyuɛ how- how 1sG-call thing-INDEF REL.I-that pangolin what's this thing called ... (0.5) a pangolin.
- 16 K mm mm
- 17 A 3-se à-di õ ənyagemi ə-sè ↑bélélé.lélélé↑ 3sg-HAB 3sg-take 3sg.poss tongue 3sg-go іррн.bélélé.ем3 It takes its tongue and goes ↑bélélélélélé1
- 18 ▶ ò-bra-ù ↑tagbaraa:↑ 3sg-make-э.овј іррн.long.ем It makes it *↑tagbaraaa*↑ [long]!

After bringing up the comparison with a pangolin's tongue, Ata illustrates his argument using two ideophonic tokens in line 17-18. Skipping line 17 for the moment, the ideophone tagbaraa 'long' in line 18 is an existing, conventionalised form that illustrates the basic properties of ideophones captured in the definition "marked words that depict sensory imagery." Tagbaraa is a marked word because of its typical trisyllabic monovocalic root, a word form that it shares with a sizable portion of ideophones in Siwu, and not with other words. This particular token shows additional final lengthening, a type of expressive morphology that is particularly common in ideophones (and again, less so in other words). The ideophone is produced at a markedly higher pitch (marked by the upward arrows '↑'), something I call (following Nuckolls 1996) "performative foregrounding". The effect of all this is that the ideophone is marked as different from the surrounding material: it is marked as a depiction in speech. As a depiction, the ideophone recreates aspects of sensory imagery, much like quotations recreate aspects of the experience of the quoted speech (Clark and Gerrig 1990). What is depicted by the ideophone in this case is the sensory imagery of something extraordinary long. The expressive lengthening of the form serves as an iconic expression of the length. But the sounds of *tagbaraa* do not depict this perceptual image all by themselves: the word is conventionalised, and knowing what its meaning is helps speakers to 'see' the form tagbaraaa, with its performative foregrounding and expressive lengthening, as depicting the experience of something very long.

What are the ways in which ideophones depict sensory imagery? In conventionalised ideophones, we find at least three distinct types of mappings between form and meaning: direct, Gestalt, and relative iconicity (Dingemanse 2011b). Direct iconicity is the simplest type: here the sound of a word imitates a sound in the world, as in the familiar onomatopoetic words for animal calls and other sonic events, like boom or splash. This is a fairly transparent mapping, but it is limited to the simple imitation of sounds. The other two mappings allow us to move beyond mere imitation by means of diagrammatic iconicity. In Gestalt iconicity, the structure of the word maps onto the structure of the event. In Siwu ideophones, for instance, reduplicated forms like zigizigi 'moving to and fro' and gelegele 'glittering' tend to evoke repetition and multiplicity, whereas monosyllabic forms like dzâ 'sudden appearance' and kpo 'sound of impact' tend to evoke unitary events. Speech and sensory events both have aspectual structure and unfold over time, and this is what Gestalt iconicity taps into. Finally, in relative iconicity, related words map onto related meanings. For instance, in the ideophones fefere and foforo, the vowels signify different shades of meaning: both ideophones roughly mean 'lightweight', but *fɛfɛrɛ* is lighter than *foforo*. Relative iconicity is particularly useful for depicting attributes like magnitude and intensity.

These three form-meaning mappings are called iconic because they involve a perceived resemblance between form and meaning (see also Sicoli, this issue). 'Perceived' is a crucial term here, since iconicity is ultimately in the eye of the beholder. This opens a window to a fourth type of mapping, coerced iconicity, where the depictive presentation of some ideophones may coerce us into thinking of them as adequate renditions of the depicted material, even if the iconic mapping between form and meaning is not all that transparent (Dingemanse 2011b). Examples are ideophones depicting inner sensations or mental states like furufuru 'blurry vision', from Siwu or zádádá 'total refusion', from Gbaya, a member of the Gbaya-Manza-Ngbaka language cluster in central Africa (Noss 2001). Even though in such cases it may seem unclear how exactly form is meant to suggest meaning, these ideophones are treated as effective depictions by native speakers of the language. The art of painting offers a parallel here: if we compare Rembrandt's realism with Picasso's cubism, the latter may be less lifelike in a literal way; but still viewers overwhelmingly treat cubist paintings as depictions, using their imagination to fill out what the paintings merely suggest. By the mechanism of coerced iconicity, some ideophones work in the same way.

The different types of iconicity can be seen as a set of techniques to suggest sensory imagery, much like a painter's brushes and colour palette – except that in our case, the painter is also a performance artist. For when we encounter ideophones, it is not as still images framed on silent museum walls, but as vivid depictions embedded in live conversations, produced with intonational foregrounding and a whole host of other performance features, including duration, loudness, phonation, and manual and bodily gestures (Kunene 1965; Nuckolls 1996; Klassen 1999; Dingemanse 2011a). Together, the lexical iconic mappings and the performance features form a toolkit of semiotic resources for depicting in speech. While the lexical iconic mappings can be seen in the citation forms of many ideophones, the performance features can only be observed in actual use – a prime reason to work with a corpus of naturally occurring speech.

Some cases of ideophone creation

Our first case of ideophone creation occurs in the stretch of conversation presented above. This time, we focus on bélélélélé in line 17 of Extract 1. Just like tagbaraa in the next line, this form occurs in utterance-final position and is performatively foregrounded by means of a markedly higher pitch than the preceding verbal material. Moreover, it is reduplicated beyond the canonical trisyllabic template: a case of expressive morphology. All these features suggest that bélélélélélé is a bona fide ideophone. Yet when presented in isolation, native speakers were unable to assign a meaning to it. The one person who was confident about the interpretation of bélélélélé was Kuma, who had been present during the conversation. It is likely that he was able to assign a meaning to the form because he had been witness to the common ground and communicative context that formed the backdrop to this particular stretch of depictive behaviour.

In the context of the conversation it is not so hard to assign an interpretation to Ata's creative depiction. Ata's aim is to convey the special nature of tongue of the gecko. First, he makes a comparison to the tongue of the pangolin (line 14-15), then he says, "the gecko takes its tongue and goes béléléléléle" (line 17), topping it off with the conventionalised ideophone tagbaraa 'long' (line 18). The performative foregrounding and expressive morphology mark bélélélélé as a depiction. The repetition of the form can be seen as a case of Gestalt iconicity, the repeated syllables evoking the sheer length of the tongue, going on and on. The interpretation of this creative depiction is supported and enriched by the surrounding verbal material. At the same time, it enriches the interpretation of that verbal material, by supplying a vivid demonstration of the perception of extreme length.

Gestalt iconicity may account at least partly for the shape of the item, but where does the segmental material come from? Most of the speakers who did not recognise bélélé as an existing word were at a loss, which suggests it may a true innovation without relation to existing words. One volunteered bèlèlè, an ideophone evoking the image of a long flowing robe. The likely interpretation of bélélé and the meaning of this existing ideophone involve the notion of length, the main difference being one of scale. Perhaps the speaker attempted to depict the tiny but long tongue of the gecko in sound by creating a variant of an existing ideophone depicting a long, flowing robe. If bèlèlè indeed functioned as the template for bélélé, it is noteworthy that both the change in tone (from L to H) and the change in vowel (from mid to high) are in line with known cross-linguistic tendencies operating in size-sound symbolism (Westermann 1927).

Uncertainty about the origin of creative depictions is not just a feature of posthoc analysis: it is unlikely that participants in conversation necessarily know any better. In the rapid flow of conversation, there is no time to contemplate possible etymologies; rather, there is constant pressure to arrive at 'good-enough' interpretations and get on with the conversation. The concept of a good-enough interpretation (for a review, see Ferreira and Patson 2007) refers to the fact that people's comprehension of sentences can be quite shallow, and that language processing appears to be aimed at finding a solution that is good enough for current purposes, rather than at computing specific and detailed interpretations. In the current context, the notion of a good-enough interpretation directs our attention to the cues and heuristics that aid swift comprehension. How are new ideophones produced such that they support this process of rapidly arriving at an interpretation that is good enough for current purposes? As this first case suggests, new ideophones may ride on the infrastructure provided by conventionalised ones: performative foregrounding to mark the material as a depiction, established types of form-meaning mappings as depictive tools, and possibly, allusions to existing ideophones to guide the imagination of the listener.

Another ideophone neologism is found in the following story, told in conversation. Extract 2 is about the king of a neighbouring country who likes to take his bath in two stages: first with a bucket of cold water, then with one of hot water. What the king does not know is that on this fateful day, the order of the buckets has been reversed by an ill-disposed servant, and that the water in the hot bucket has been heated to near boiling point.

Extract 2. The king takes a bath

- o-nyà ρ-sè 5-à-bo, э-nyà эdi gэ àra, when 3sg-see 3sg-HAB 3sg-FUT-reach when 3sg-see 3sg-take things, "So when he got there, when he undressed,
- kùgo o-nya, ↑↑walayayayaya↑↑ 2 ▶ gэ o-nyà when 3sG-see how 3sG-see, IDPH.walayayayaya just when he's about to - walayayayayaya!" ((gestures waves of water passing over skin))
- (0.4)3
- oh, ɔ-tsùè 4 pelepelepele oh, 3sg:pst-burn IDPH.completely "Oh, he was scalded all over."

The item used in line 2 of Extract 2, walayayayaya, bears all the marks of a bona fide ideophone: it is intonationally foregrounded, expressively reduplicated, and occurs in utterance-final position. However, again, when presented in isolation, it was not recognised as an existing word. From the narrative sequence leading up to this moment and from the gestures of the storyteller, it appears that walayayayaya depicts the dramatic scene of the boiling water pouring down on the protagonist's skin, the effect of which is summarised in the following line: "scalded all over". This interpretation is confirmed by Siwu speakers hearing the ideophone in this context. So walayayayaya is a spontaneous vocal gesture that depicts in sound an essential part of the story. It can do its depictive work because its special status is signalled by the same features that regularly accompany conventionalised ideophones: utterance-final position, preceded by a brief pause; expressive reduplication; performative foregrounding; and iconic gesture.

So far, the evidence that listeners can interpret these new forms has been indirect: no problem was indicated, and from this we assume that the innovative form posed no difficulty. Much of conversation rides on this assumption, but this does not mean that every single word is understood perfectly. Sometimes the social cost of posing a request for clarification is too high, and we let problems pass by.

Ideally, then, we would find a case where listeners reveal their interpretation of a creative form. Extract 3 offers such a case. It is from a conversation taking place during the making of gunpowder. While local gunpowder expert Ruben is busy mixing and stirring the gunpowder ingredients in his mortar, onlooker Adom tells a tale about the time he went hunting, using gunpowder manufactured by Ruben.

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Extract 3. Gunpowder 1–13
        (7.0)
2.
                    bó-sè::
                                (1.0) Kùbe kɔra nɛ
    A oh, go
        INTJ when 1PL:PST-go
                                      PLN
                                            side TP
        Oh, when we went to:: (1.0) Kùbe,
3
        (0.7)
        ìide
                 fo
                            kudu
                                        bópε-
                                                                  taim
                                                     bópε
        it-NEG-be 2sg.poss gunpowder 1PL:PST-beat 1PL:PST-beat time
        дэттэ
        REL.3-there
        wasn't it your gunpowder that we shot- we shot that time?
5
        (0.5)
6
   R
       m̀-hm
        m-hm
        m-hm
           kàbenya mmò
7
   A = i
        LOC outskirts there
        =at the outskirts of town there
    R
       mm:
        mm:
        mm:
9
    A kùdu
                   gəmò
                              эbùà
                                          kùba
                                                                        ló
                                                    yuayua
        gunpowder REL-there SCR-be.very KU.S-have IDPH.burn ADV.very FP.ADV
        That gunpowder was very yuayua [volatile]!
10
        kэ
        INTJ.gee
        Tsk!
11
        (1.5)
12 ▶
        lopε
                  ^kpáw^
        1sg-beat IDPH.kpáw
        I fired ↑kpaw↑!
13
        (1.2)
14 R kùdu
                    leiha
        gunpowder DEP-NEG-reach nipple
        The gunpowder didn't reach the ignition mechanism.
15 A kùdu
                    leiha-
                                    (0.2) \uparrow k \hat{\jmath} \uparrow
        gunpowder DEP-NEG-reach-
        The gunpowder didn't reach- (0.2) Tsk!
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Adom announces his telling in line 2 with a reference to a past event in Kùbe, the hunting grounds west of the village. His question ("wasn't it your gunpowder?")

renders Ruben's expertise as a gunpowder maker relevant (line 4). Ruben offers a somewhat delayed response to Adom's request (line 6), after which Adom expands by providing more detail and Ruben offers a vocal continuer mm (line 8). Adom describes Ruben's gunpowder as yuayua, an ideophone related to burning, which in this context can be interpreted as 'volatile' or 'easily igniting'. This assessment provides Ruben with some evidence about where the story may be going. After a brief pause, Adom says *lopε kpáw!* "I fired *kpáw*!" (line 12). The form *kpáw* here is structurally an ideophone on all counts: phonotactically deviant, syntactically at the clause edge, performatively foregrounded. In isolation, no speakers of Siwu could attribute a meaning to it, and most were quite adamant that it was not a proper word at all. Yet in the real-time flow of conversation it did not pose any difficulty. This is clear from Ruben's interpretation of the form: "The gunpowder didn't reach the ignition mechanism." Ruben interprets Adom's improvised ideophone *kpaw* as a depiction of the event in which the gun's trigger is pulled, but the charge fails to ignite due to a technical defect. Adom repeats this interpretation, thereby affirming it.

We see here that conversational data provides insights that would be hard to obtain in other ways. Not only does the data in Extract 3 provide us with evidence that ideophone creation happens; it also gives us evidence about how it happens, in the form of subsequent conversational moves that reveal how listeners interpret new forms. In this time scale – at the level of *enchrony*, or conversational time (Enfield 2011) - the creation and interpretation of new ideophones is not mysterious at all. New ideophones are not created out of thin air, but (1) in a specific sequential environment, (2) in the context of a specific topic, and (3) building on common ground. This is where we get "kpaw", and where the semiotic resources outlined above kick in: the new form is framed as special by means of syntactic independence and intonational foregrounding, and it is built with the toolkit for vocal depiction. It relies on direct iconicity in that it sounds like a little 'plop' rather than a loud explosion, and it relies on Gestalt iconicity in depicting the structure of the event: the monosyllabic form signals a one-off, unitary event, and the closed syllable iconically signals punctuality (the opposite of durativity).

Kpaw thus depicts a feeble 'plop' rather than a resounding 'bang'. That it indeed contrasts with a 'bang' becomes even clearer when Adom continues his telling (Extract 4). Adom describes in detail how he took a second shot, building up to a climactic *gbiim*, an existing ideophone that can be glossed as 'bang'. From this shot and its strong recoil (line 16, 17) the teller concludes that "this boy knows how to make gunpowder" after all (line 21), a compliment that is received with a broad smile by Ruben (line 22).

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Extract 4. Gunpowder 14-20
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(0.4) ks
                               lòyora
                                                        dèka ↑sharp↑
               soon 1sG-see 1sG-jump.cause time one
                                                               sharp
        (0.4) But as soon as I fired a shot at once \uparrow sharp \uparrow<sup>2</sup>
15
        (1.0)
        ^ták^
16 ▶
                    tòw
                               (0.9) ↑↑gbíiììm::↑↑
        іррн.ták іррн.tòw
                                      гррн.explosion
        \uparrow ták \uparrow tòw (0.9) \uparrow \uparrow gbíiìm:: \uparrow \uparrow
17
                    kúdè
        nyo go
                                             ìmòitì
                                                        ngbe ne
        look how KU.S:PST-eat 1SG.OBJ shoulder here TP
        Look how it hit my shoulder here! ((i.e. the recoil of the gun))
18 R
        ((shifts gaze to A))
19
                 nìtə lobùà
                                    lotsùè
                                                     ves màn ee
        1sg.ind self 1sg-be.very 1sg-know QT yes man intj.ee
        And then I knew for sure that yes man, ee,
20
        (1.3)
21
        àbi ábùà
                           àуе
                                        kùdu
                                                     ibara
        boy 3sg-be.very 3sg-know gunpowder noм-make
        this boy knows how to make gunpowder.
22 R
        ((smiles))
```

In line 16, we find three performatively foregrounded items. In fact, the line contains no descriptive material – what Adom says is $\uparrow t\acute{a}k \uparrow t\grave{o}w$ (0.9) $\uparrow \uparrow gb\'{i}\'{i}\`{i}m::\uparrow \uparrow$, and to translate it would be beside the point. The whole utterance is in the depictive mode, with only *gbiim* being a conventionalised ideophone in Siwu. The utterance remains incomprehensible unless we are prepared to shift into a different way of listening to the speech – one in which we pretend we are experiencing the depicted scene. Then the utterance provides us with a slow-motion, cinematic rendition of the pulling of the trigger, the interlocking of the gun's parts and (after a dramatic silence) a resounding explosion. Again, the performative foregrounding alerts us to the depictive mode of representation. And again, the marked word

^{2.} *zi deka* is Ewe for "at once" and *sharp* is an English loanword, so this utterance features Siwu, Ewe and English. It would in fact be possible to analyse *sharp* in this context as a derived ideophone – its structural markedness (English phonology), syntactic location, and performative foregrounding certainly make it a likely candidate for a depictive interpretation. The case would be somewhat similar to the ideophonic form *siks* (derived from English *six*) in the southern Bantu language Sotho, described by Kunene (1965: 37).

forms, phonotactically anomalous relative to ordinary Siwu words, make use of the principles of direct and Gestalt iconicity to suggest meaning.³

"Ideophones are not made to be correct or wrong"

Against the background of this empirical evidence of ideophone creation, it is useful to consider what Siwu speakers themselves have to say on the issue. In a conversation on ideophones, my main consultant Odime Kanairo provided some perceptive metalinguistic comments.⁴ Preceding the part transcribed below (Extract 5), Odime remarked that when "bringing an ideophone", all present will agree with you about the meaning, even if the form is new to them. This launched us into a discussion of creating new ideophones, something Odime described as "you can form your own ideophone". After this initial characterisation of creative ideophone use, the topic shifts to the issue of how ideophones are understood, especially if they are newly created. If there is no convention in place, at least not in the sense in which ordinary words like $k \dot{a} \gamma \tilde{\epsilon}$ 'mortar' or dəbərəə 'soft' are conventionalised, the question is: how do people know what you are trying to express?

Extract 5. [Conversation with Odime Kanairo, OK]

OK And moreover if they bring it, or they introduce it, you will by all means understand that this is what they are referring to, or this ideophone is describing this.

^{3.} Bill Samarin (p.c.) comments, "I believe that you weaken the argument in this paper by using onomatopoeic words." Elsewhere, I have outlined the typological evidence for an implicational hierarchy of ideophone systems, according to which all languages have at least ideophones for sounds (or onomatopoeia), and if they have more, this will be in the order of ideophones for movement, visual patterns, other sensory perceptions, and finally inner feelings and cognitive states (Dingemanse 2012). This implicational hierarchy is shaped at least in part by the depictive affordances offered by speech: sounds and movements are easier to depict than visual patterns, and inner feelings and cognitive states are the least easy to depict in the modality of speech. As this article studies creative vocal depictions, it should be no surprise that some of them are from the 'lower' end of this implicational hierarchy.

^{4.} Recorded some time into my second field trip to Kawu (March 2008); this was the first time that I invited Odime to speculate on how these words are used. The conversation took place in English with some Siwu mixed in. Our work together in many sessions of elicitation and transcription had made clear to him the kinds of words I was interested in. I asked him to reflect on these words using the term 'ideophones', as there is no indigenous metalinguistic term for them, although there is a keen understanding of their rhetorical importance (Dingemanse 2011a: 39-41).

- MD How do they know?
- OK They will by all means know because...
- MD How?
- OK From the conversation.
- MD From the conversation.
- OK Yes. They will by all means know that you are referring to this.
- MD From the context.
- OK Context.
- MD But why would they agree with you that your ideophone is a good one? You might be wrong!
- OK No. It doesn't matter if you are wrong so far as they understood what you are referring to. Because ideophones are not made there to be correct or wrong.

The key observation here is that "ideophones are not made there to be correct or wrong". It would be mistaken to summarise this as expressing that "anything goes". Rather, the point that Odime is trying to get across to his at times obtuse interviewer is that the question of right or wrong is not the kind of question one asks of a depictive stretch of speech. What he says is that you can produce a creative depiction of some imagery, and your fellow interactants will understand you – not because you have chosen the right sequence of speech sounds (for that is the point: there is not one right depiction) – but because your fellow interactants will understand that you are launching into a depictive performance and will treat it as such. Specifically, they will treat that stretch of speech in such a way as to make them believe they are experiencing the scene depicted; and they will combine all cues that are available into an interpretation that is good enough for current purposes.

In this respect, ideophones are much like depictive gestures (on which see McNeill 1992; Kendon 2004; Enfield 2009). In general, it makes little sense to think of depictive acts of communication in terms of right and wrong, because they are first and foremost creative renditions that are supported by context and require taking into account the artists' intentions. This does not mean, of course, that there are no constraints; but it does mean that what is possible is bounded by the context and the imagination of those interacting, more than by a simple-minded grid of resemblances. Depiction is, after all, a game of make-believe (Gombrich 2002 [1960]; Walton 1973).

All of this would be little more than speculation, were it not for the fact that we actually see the depiction happen in the cases examined. New forms are interpreted seemingly without effort. All cases in the corpus are marked by performative foregrounding. The shift into higher pitch and the expressive reduplication

and lengthening of certain stretches of speech are signals that we are launching into a depictive mode of representation. This is what helps listeners to make sense of new forms. They cannot rely on previous encounters with the form in question to retrieve its meaning, but the foregrounding acts as a cue directing them towards one particular way of solving the coordination problem: treating the speech as a stretch of depictive behaviour, a depiction in sound. We have also seen – in most detail in the case of kpaw - that matters like sequential environment, story structure, and common ground help foreshadow the general direction in which an interpretation is to be sought. In addition to this, the existing ideophone inventory of their language supplies listeners with several tools to map sound and sense: from the principles of direct, Gestalt and relative iconicity to performance characteristics like loudness, intonation and voice quality.

All of these things together - foregrounding, expressive morphology, iconic mappings, and contextual information – function as cues that support the process of arriving at good-enough interpretations of new ideophones. Given these cues, listeners can project into bélélélélé the spatial extent of the gecko's tongue; in walayayaya they can see the violent outpouring of boiling water onto the King's bare skin; in *kpaw* they can hear the feeble 'plop' of the firing mechanism as it fails to produce the real 'bang'; and in ták tòw (0.9) gbíi:m, they can hear the parts of the gun clicking in place to deliver a resounding explosion.

Let us briefly consider the relation between existing ideophones and new ones. As we saw, most of the time when people use ideophones in everyday discourse, they use forms that are already known in the speech community. The making of new ideophones thus occurs against the backdrop of an existing inventory of ideophones and practices of employing them, and this is likely what accounts for a great deal of the formal aspects of the creative depictions. Creative depictions like kpaw and bélélé are usually produced as one-offs, but there is always the possibility that they will catch on and propagate in the speech community according to known processes of diffusion of innovation (Keller 1998). This is how new forms may become conventionalised and become part of the ideophone inventory. It thus appears that Westermann was right when, writing about ideophones, he suggested that "we have here an area of word formation that is still open" (Westermann 1927: 319).

Creative depiction in language

We are now in a position to consider how the data presented here reflect on the broader issue of creativity in language. The first thing to note is that being presented with an unconventionalised form is not at all rare (Schelling 1960; Clark 1996; Keller 1998; Croft 2000). Communicating persons regularly find themselves creatively working with any material at hand to reach their communicative goals and they coordinate their shared understandings. Any linguistic element may be used creatively, and if this use catches on, the effect may be the establishment of a new convention.

Much work on creativity in language has focused on the ways in which speakers may take existing linguistic items and use them in a new sense (Clark and Clark 1979; Carter 2004), while relying on their interlocutors' ability to co-construct their communicative intention with the help of factors like common ground and joint salience. A well-known example is the creative use of nouns as verbs described by Clark and Clark (1979). An example from the domain of grammaticalisation is the cross-linguistically widespread use of body-part terms to talk about spatial relations. Such uses start out as creative metaphors that are naturally grounded in a piece of common ground we all carry with us: the body (Heine 1997). The creative use of language exemplified in such patterns of semantic extensions (as in figurative language in general) rests upon the interlocutors' abilities to re-use existing words. Novel meanings are constructed based on existing semantic connotations and denotations and building on common ground. Descriptive (as opposed to depictive) vocabulary forms the basic material of this creative use of language, so we may call it 'creative description'.

By contrast, the cases analysed in the present article point to another type of creativity in language, one we may call creative depiction. Here, the emphasis is not on having the other recognise the ways in which a novel phrase builds on existing connotations and denotations, but on presenting the verbal material in such a way that the other treats it as a depiction. Creative depiction builds on a different semiotic affordance of speech altogether: the potential of its sensory properties to suggest meaning (Werner and Kaplan 1963; Jakobson and Waugh 1979). This is *Lautmalerei* – painting in sound – in its purest sense.

It would be tempting to remark that nothing could be more natural than using speech in this way, implying perhaps that the phenomenon is hardly worth of scientific attention. To say so would be to overlook that the depictive use of speech, too, places requirements on conventions and common ground. An important requirement is people's readiness for this kind of appeal to the imagination. If there are no shared practices in place that make excursions into the depictive mode acceptable and expected, any such appeals will fall flat. There is some evidence that societies maintain different attitudes and language ideologies with regard to the value of depictive strategies in communication (Nuckolls 2004), so that for some, it may be more acceptable to use creative depiction than it is for others. This points to a possible reason for linguistic and cultural differences in the size of ideophone inventories and the extent to which they are seen as part of a language

We have also seen that there are conventions with regard to the form of creative depictions. For instance, all of the cases we have seen here are built from ordinary Siwu phonemes, though in phonotactically deviant ways (just as it is the case for existing ideophones). New ideophones use the basic types of form-meaning mappings also found in existing ones: direct, Gestalt and relative iconicity. Creative depiction does not operate in a vacuum. It is nurtured by everyday practices of language use and relies on a communicative competence that combines the ability to produce sentences with a sensitivity to the material affordances of speech.

Creative depiction has been approached here from the perspective of ideophones, but it is of broader relevance in language use. Consider three disparate examples. Creative vocal depictions are important in the work of animators, where conventionalised forms like boing and swoosh are used alongside new coinages like sproing, whup and kaboosh to communicate about motion and visual effects in joint work on animations. Here of course there is a rich interaction with the conventionalised and creative onomatopoeia found in comics (Taylor 2006). Creative depiction is also in common use around the world in the form of acoustic-iconic mnemonic systems for the transmission and representation of music and melody (Hughes 2000) - systems that use various features of spoken language (pitch, speech sounds, syllables, intensity and duration) to depict sounds, melodies and other aspects of musical structure and delivery. Another context in which we find the use of vocal depiction is that of dancing together. Vocal depictions like tam ta da and wop pa ba PUM can depict aspects of the temporal and physical dynamics of dance moves, and they are used in conjunction with bodily demonstrations of moves in dance classes (Keevallik 2010). These scattered examples suggest that creative depiction may be much more widespread in human communicative behaviour than has sometimes been assumed.

There have been some experimental studies of creative vocal depiction under the name of 'syllabling' (Sundberg 1994)⁵ and 'analog acoustic expression' (Shintel, Nusbaum, and Okrent 2006). Sundberg (1994) found that the nonsense syllables chosen to accompany performances of melodies reflect aspects of musical structure such as rhythm, grouping, and other subtle performance features. Shintel et al. (2006) found that speakers can use vocal depiction to convey properties such as size, motion, and tempo. These phenomena have been treated as separate from language, and there may indeed be some reason to regard the

^{5.} Thanks to Herb Clark for pointing me to this study.

acoustic-iconic systems of musicians as conventionalised registers of their own; but as the current study shows, there is a transparent link to the affordances of speech as they are exploited in everyday language use.

Research into creative depiction as a unified phenomenon has barely started. While creative depiction may serve different purposes in different situations – enacting events in Siwu storytelling, coordinating joint work in animators' studios, teaching and transmitting knowledge in music and dance lessons - all these situations of use point to the tremendous communicative power of depiction. What they have in common is that they deal with matters that are hard to express in descriptive terms. Some things are apparently best communicated about in the depictive mode of representation - a fact that opens up exciting possibilities for research contrasting descriptive and depictive modes of communication.

Conclusion

Ideophone creation is neither mythical nor mysterious. It happens in everyday language use, and here we have examined how it works in recorded instances of conversation. New ideophones are produced and interpreted with the help of the semiotic infrastructure that underlies the use of existing ideophones: performative foregrounding to signal a switch to the depictive mode of representation, a variety of iconic form-meaning mappings functioning as a toolkit for depicting sensory imagery in speech, and the surrounding sequential environment for scaffolding meaning. These aspects of ideophone creation tap into our more general ability to use speech depictively.

Speech is a medium that, in linguistics, has become strongly identified with only one of its possible modes of representation: description. Yet speech is a semiotic resource with multiple affordances: it can form arbitrary words but also iconically depict meanings. As Dell Hymes once noted, "[t]he prospect will show how utterly inadequate to the true nature of human competence in language are models of language which build their castles out of only the stone of reference" (1985: 15-16). Depiction, both in its conventionalised form and in its creative uses, is a central affordance of language, and its empirical investigation can yield fundamental insights into matters of competence and creativity.

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Abbreviations and conventions

Transcription conventions for conversation are adapted from (Jefferson 2004). Arrows ("↑") mark the start and end of prosodic foregrounding, i.e. a markedly high pitch relative to other material in the utterance (Nuckolls 1996; Selting 1994). The gloss EM marks expressive morphology, i.e. additive reduplication and lengthening (Zwicky and Pullum 1987). Tone marks are à Low, a Mid, and á High. Other non-standard abbreviations used in glosses include: A agreement; C noun class marker; DEP dependent cross-reference marker; DDST and DPRX distal and proximal demonstrative; FP utterance final particle; ING ingressive; PSN person name; s subject marker; scr independent subject cross-reference marker. Several of these are combined with the noun class mnemonics I, A, MA, D, SI, KA, KU, MI (e.g. C.) is the noun class marker for the 2 class, REL.SI is a relative marker for the SI class). Subscripts following examples identify recordings in the corpus.

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