

Iconic performances: The information structure and semantic contributions of ideophones and gestures

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Kita (1993) found that up to 94% of ideophones in a Japanese corpus were accompanied by a gesture, with the majority being iconic gestures. Researchers now generally agree that gestures contribute information in addition to the accompanying speech and this also appears to be the case for ideophones. Dingemanse (2012) has argued that ideophones and iconic gestures form two parts of one multimodal iconic performance, with the speaker using both modalities in order to maximise the iconic potential of the performance. While in recent years researchers such as Ebert, Ebert & Hörnig (2020), Esipova (2019) and Schlenker (2018) have proposed semantic analyses of the meaning contributions of iconic gestures and Ebert & Barnes (in draft), Henderson (2016) and Kawahara (2020) have provided formal semantic analyses of ideophones in German, Tseltal and Japanese; there has to date been no research into the combined meaning contributions of ideophones and gestures.

The key research questions for ideophone and gesture combinations concern what information the gestures adds to the ideophone expression and what the semantic contribution of these iconic performances is. The goal of this research is to provide an initial semantic analysis for ideophones and gestures occurring together, while also proposing future research to investigate the exact meaning contributions of gestures alongside ideophones. Both Dingemanse (2015) and Nuckolls (2019) have shown evidence that gestures appear to contribute additional information on top of the ideophone. This can be seen in (1), elicited by Dingemanse (2015, p.219) during fieldwork on Siwu. In this example, the participant performed a gesture described as “right hand flat, moves from upper right down to alongside body depicting flow of water” (p.219).

(1) The water goes [yááá].GUSHING

The gesture contributes additional information about the path of the water and could potentially include further information such as manner or speed. As such then, iconic performances with ideophones and gestures seem to allow speakers to not only give multisensory information about the described events through the spoken modality, but to enhance this depiction by using the visual medium to give additional information about said event which is not already encoded in the ideophone. As Dingemanse (2013) notes, this makes the most of the ideophone’s iconic potential and allows speakers to give a more embellished performance of the event they are discussing.

Nevertheless, the combination of the two iconic components does not seem to impact the at-issue status of the co-speech gesture, which remains not-at-issue (cf. Ebert, Ebert & Hörnig 2020; Schlenker 2018). This can also be seen in attempting to deny the gesture contribution in (2), taken from Dingemanse (2015), where the gesture is described as “both hands flat, palm down, moving and meandering horizontally while body is turning” (p. 219):

(2) A: The water just goes [yááá].GUSHING
B: No, that’s not true, the water was moving quite slowly.
B: # No, that’s not true, the water went straight past.

It seems that the gesture behaves as a normal co-speech gesture; it is not at-issue and cannot be

targeted by a direct denial. In this case then, the combination of gesture and ideophone does not appear to be able to shift the gesture towards at-issue status.

Based on these observations, an initial semantic account of ideophone and gestures can be provided. I follow Ebert, Ebert & Hörnig (2020) and assume that the lexical meaning of a gesture is reference to an individual, the gesture referent. Depending on the temporal alignment of the gesture and speech, this gesture referent stands in varying relations to the verbal referent and this meaning contribution is default not at-issue. An ideophone, on the other hand has two meaning contributions; the first being its conventionalised meaning which behaves in the same manner as other arbitrary items from the same syntactic category. For example the conventionalised meaning of an ideophone used predicatively will provide an event argument, whereas an ideophone used adverbially will function as an event modifier. The second meaning component of an ideophone is its iconic meaning, which comes about due to varying aspects of the ideophone utterance itself, which is formalised using demonstrations, d (cf. Davidson 2015). The ideophone utterance as a demonstration then stands in a *SIM* relation to the main event. The iconic meaning component of an ideophone is default not at-issue, whereas the conventionalised meaning component can be shifted towards at-issue status given the right conditions.

Assuming demonstrations to be a proper subset of events, then we can also assume that demonstrations are connected to the domain of individuals via theta roles (cf. Henderson 2016). As such, when an iconic gesture co-occurs with an ideophone, the gesture referent fills a theta role in the demonstration argument structure and in doing so generates an implicature about properties or actions of a salient individual in the main event.

This approach can be applied to the gesture ideophone combination in (1). Due it being used predicatively, the conventionalised meaning component of the ideophone is necessarily at-issue and contributes that the reported event is some sort of whooshing event. However, the iconic part of the predicative ideophone remains not at-issue (cf. Barnes et al. 2022). This iconic part contributes as its meaning a demonstration, namely the utterance of $\gamma\acute{a}\acute{a}\acute{a}$ event, which is *SIM* in the relevant dimensions to the event of the water gushing. The gesture on the other hand refers to the agent of the demonstration and iconically depicts its path. The combination of the ideophone and gesture therefore makes the not-at-issue contribution that the gushing event is similar in the relevant dimensions to the demonstration and as such that the movements of the agent in the demonstration is similar to the movements of the water in the reported event.

It is then possible to provide the analysis in (3-b) for the adapted version of (1) in (3-a). (Rough gloss given in (3-c)).

- (3) a. The water goes [whoosh]- GUSHING.
 b. $[e] \wedge \text{agent}(e, x) \text{water}(x) \wedge \text{goes whoosh}_p(e) \wedge [d] d = d_{\text{whoosh}} \wedge [z] \wedge z = g \wedge \text{agent}(d, z) \wedge \text{SIM}_{p^*}(d, e)$
 c. There is an event, e and the agent of e is the water and e is an event of whooshing. There is a demonstration, d , namely the utterance of *whoosh* or d_{whoosh} , and there is a gesture, z , whose referent is g and z is the agent of d_{whoosh} and d_{whoosh} is similar in the relevant dimensions to e .

This preliminary analysis provides a basis from which we can begin to formalise the meaning contributions of iconic performances containing multiple iconic enrichments.

There are however many remaining questions, particularly concerning what kind of information

a gesture can contribute when it co-occurs with a gesture. Kita & Özyürek (2003) showed that gestures tend to be shaped by how the information is structured in the verbal domain, but may add information to this linguistic expression. For example, when recounting the plot of cartoons, English speakers often accompanied the verb *swing* with gestures showing an agent's trajectory while swinging or the manner in which they swung. In German, ideophones predominantly encode sound and movement (cf. Ćwiek submitted), which, as it is difficult to imagine how a gesture could encode sound, suggests that the majority of gestures will be restricted to depicting aspects of movement when co-occurring with such ideophones. As such, the hypothesis in this study is that iconic gestures accompanying ideophones in German will encode information around trajectory or manner in a similar manner to gestures which accompany English verbs such as *swing*. A further prediction is that these gestures will have the same at-issue status as other co-speech iconic gestures and also contribute not-at-issue information.

In order to test the first of these predictions, I am in the process of conducting a production study on ideophones and gestures in German. The study will be conducted with native speakers of German, primarily primary school teachers or others who regularly work with children, as such participants will be more likely to produce ideophone and gesture combinations. Its aim will be to provide a systematic review of the combined meaning contributions of ideophone and iconic gestures, allowing for a better understanding of the kinds of information contributed by both ideophones and gestures. The methodology will partly adapt the fieldwork conducted by Dingemane (2015) by asking participants to give definitions for ideophones and to provide example sentences with each ideophone. The ideophones to be used will be predominantly those which have been shown to encode both sound and movement in German (cf. Ćwiek submitted), for example *holterdiepolter* 'helter-skelter', *plums* 'thud', *schnippschnapp* 'snip snap', *wusch* 'woosh'. Participants will be asked to imagine they are explaining the ideophone to a 6 year old child, which it is hoped, will result in a greater amount of gestures. I would hope to have initial data from this study to present alongside the theoretical analysis at Linguistic Evidence.

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