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Journal of Nonverbal Behavior

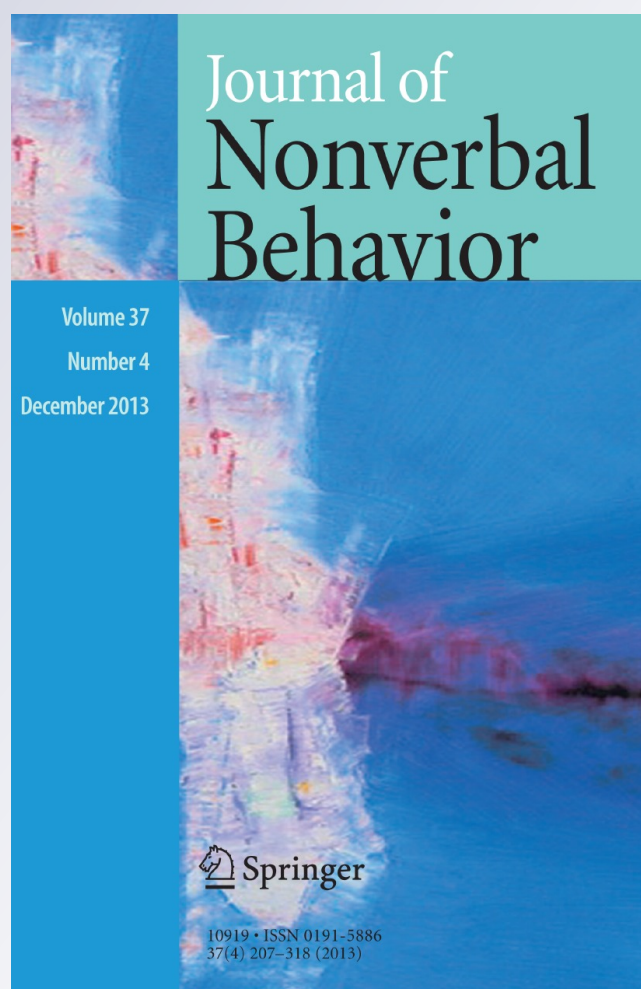
ISSN 0191-5886

Volume 37

Number 4

J Nonverbal Behav (2013) 37:245-280

DOI 10.1007/s10919-013-0160-2



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Comparing the Products and the Processes of Creating Sign Language Poetry and Pantomimic Improvisations

Rachel Sutton-Spence · Penny Boyes Braem

Published online: 8 August 2013
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Abstract In this paper we ask how artistic mime and the more mimetic elements of sign language poetry compare. Niedzialkowski (Beyond the word: The world of mime. Momentum Books, Troy, 1993) has claimed: “To express complex ideas and feelings a poet uses words; for the mime the medium is the silent body” (p. 1). For a sign language poet, however, the medium for the poet’s words *is* the body. We outline some of the similarities and differences between elements of artistic mime and of highly visual creative sign language, and find that many aspects of the art that we call mime can be seen in sign language poetry, so that we may refer to *sign language mime* and *non-sign language mime*. The similarities we see between the signers and non-signers clearly reveal a shared way humans can use their body to show concepts involving actions and descriptions; the differences lie in the kind of information they show and the way they show that information. We suggest that some of this difference is driven by the differing needs and abilities of their audiences to understand their performances.

Keywords Sign language poetry · Mime · Pantomime · Iconicity · Grounded cognition

Aims of this Study

Some previous work on sign language and gesture has focused on less skilled signers, for example, deaf children with minimal access to sign language (Goldin-Meadow 2003) and some focuses on people untrained in mime, for example, volunteers recounting a cartoon

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story without recourse to words (see McNeill 2008 or Casey and Emmorey 2008). Although what differentiates pantomimic gesture from everyday gesture, or poetic signs from everyday gesture is still being discussed (Özyürek 2012), that is not our focus. Here, we ask about art, performance, and creative language, so we compare the performance of skilled sign language poets with the performances of skilled mime artists.

We set out to explore to what extent both artistic forms (mime and signed poetry) are influenced by:

- Their common non-verbal, visual-corporal modality with common basic iconic images (Cuxac and Sallandre 2008; Konrad 2011; Sallandre 2007);
- Underlying cognitive iconicity (Barsalou 2010; Boyes Braem and Bräm 2000; Boyes Braem et al. 2002; Lakoff 1987; Taub 2001; Wilcox 1993, 2000);
- The different depths of linguistic encoding embodied by sign language and pantomimic conventions (Sutton-Spence 2005; Sutton-Spence and Napoli 2010).

In order to address this, we compare how sign language poets and mime artists use their characterization skills to anthropomorphize as they “become” a range of non-humans (animals, objects, and qualities). We decided to focus on anthropomorphization partly because spoken languages achieve it very differently from signed languages and partly because signed poets and mimes frequently include representation of non-humans in their work. By anthropomorphization we mean giving human characteristics to nonhuman entities or qualities, including giving them human form, behavior or ways of communicating.

We set out to answer two simple questions:

- How do sign language poets and skilled mime artists compare in what they portray in their anthropomorphic performances?
- How do sign language poets and skilled mime artists compare in the way that they build up their anthropomorphic performances?

Taub’s (2001) analogue building model offers a cognitive-linguistic view of iconicity, claiming that it “is not an objective relationship between image and referent; rather, it is a relationship between our mental models of image and referent” (p. 19). Taub uses the American Sign Language (ASL) sign meaning ‘tree’ to show the creation of an iconic sign involves four successive stages: conceptualization, image selection, schematization, and sign encoding. West and Sutton-Spence (2012) have suggested that sign language poets select unusual perspectives of the referents and create alternative mental models of the image, which they may then use to drive creative and original ways to encode into sign. It is possible that there are different choices available to the mime artists and sign language poets for the encoding of the schematized image, perhaps depending on what the audience can interpret, as well as what the artist can produce.

In normal signing, the concept of a tree will include anything that signers and their audiences might be expected to know about a tree. For normal image selection, the signer selects a prototypical sensory image of a tree (a creative signer or mime artist, of course, may deliberately deviate from the prototypical image). Taub shows that for ASL the visual image is of a tree that consists of a trunk, spreading branches, and the ground in which it is rooted. In schematization, the essential features of the selected visual image are extracted to form a simplified framework that can be represented by signs. In Taub’s example of the ASL sign ‘tree’, the selection is: a long vertical shape representing the trunk, spreading branches, and a flat surface. In encoding, appropriate articulators are chosen to represent

the schematized elements so that for the ASL standard sign ‘tree’, the upright forearm represents the tree’s trunk, the open palm and fingers stand for the spreading branches, and the horizontal forearm of the signer’s non-dominant hand is the ground.

Sign language poets and mime artists both need to progress through these stages identified by Taub (no matter how consciously they may do it) in order to produce their creative performances. At each stage, a signer or mime artist may make a different choice and it is the purpose of our research to attempt to determine what types of decisions they make and some of the possible implications of this. For example, although they all theoretically could select the conceptualization, image, schematization, and sign encoding described by Taub, the image produced may not be highly illustrative—often the end-goal of both poets and mime artists. Instead, they might, for example, consider embodying the entire tree, in which case the human trunk represents the tree trunk, the arms represent the branches, and the fingers represent twigs.

Study 1 with Sign Language Poets

In the first part of the study, undertaken by Sutton-Spence and Donna West (at the University of Bristol), four experienced British Sign Language (BSL) poets were given a task related to creative anthropomorphism and asked to work together to create their compositions (West and Sutton-Spence 2012). We gave them a list of ten animals and asked: What is their appearance? How do they behave? How do they communicate? If you were to accord them human qualities, how would they behave, and how would they communicate? If they were unclear what we were asking them to do, we gave them prompts and responded to any questions. They each chose animals that inspired them, and when they indicated to us that they had completed this discussion, we moved on to ten inanimate objects, using the same process, and finally gave them the list of ten abstract concepts. We gave them the following entities:

- Animate entities—a range of animals chosen for their different physical forms, especially body parts that might be recruited for human activities or communication: monkey, snake, octopus, crab, snail, tortoise, bat, spider, zebra, and pig;
- Inanimate entities—chosen for similar reasons: light bulb, bicycle, star, submarine, mirror, volcano, clock, fork, spoon, and pencil;
- Abstract qualities—drawn from a list of abstract nouns in English: beauty, death, confidence, envy, fragility, honesty, indifference, loyalty, luxury, and pride.

If they were inspired to create representations of other non-human entities that were not on these lists we encouraged them to do that too. In effect, the poets had a “jamming session”. The session with the poets gave us insight into not only the creative anthropomorphic pieces they produced but also the process they went through to produce them. To this end we adapted the technique of *Think Aloud Protocols* (Tirkkonen-Condit and Jääskeläinen 2000; Van Someren et al. 1994) in which people speak their thoughts while solving a problem in order for researchers to understand the particular problem-solving process. Adapted by Stone (2009) who used it to understand how sign language interpreters reflected on a piece of translation work, we adapted it further and used *shared thinking processes* in a group session for the poets to “think aloud”, sharing comments on the problems in the tasks and their solutions and any views on the creations arising as a result of the task. We analyzed the outcomes of the jamming session that followed from these tasks, in addition to looking at poems that the signers had performed where animals and

inanimate objects are presented. (These poems are all available as part of the BSL poetry anthology, <http://www.bristol.ac.uk/bslpoetryanthology>.)

The poets used a range of visual gestures to portray the animals and inanimate objects we suggested to them and although they reported most difficulty with the abstract concepts they did also portray these. They frequently used their own body parts to map on to the body parts of the animals or objects that they could use as physical equivalents, to create powerfully visual representations. Additionally, they used elements of sign language, interspersing their highly illustrative signs with less illustrative vocabulary items (showing *degenerate iconicity*, to use Cuxac's 2000, term), often rapidly switching between the two forms of signing. As part of the anthropomorphization process they also made cultural references to deaf ways of behaving and communicating. It is clear that these creative productions were part of a visual sign language.

Study 2 Comparing the Data from Sign Poets and Mimes

We wondered how much of the characteristics of the poet's anthropomorphizations were due to the visual nature of sign language and how much to the deaf worldview of the poets, their expectations of their audiences of signers and linguistic elements of BSL that were transferred to this task. For this reason we repeated the task several months later with four professional American mime artists who had no knowledge of sign language and who might be expected to produce visual representations of these entities with their bodies, but without the deaf worldview or knowledge of sign language and for audiences who would not know sign language.

The comparison of sign language with mime is a sensitive issue that must not be seen as an attack on all that has been achieved over the past few decades to demonstrate that sign languages are "real" languages and are not "just mime or pantomime". But unless we take time to examine what mime is and what sign languages can be, we limit our understanding of both and of their potential for enhancing each other.

The question "how does sign language differ from gesture or mime?" has been asked many times of sign language users and researchers. (Notably, "How does mime or gesture differ from sign language?" is not a question we have encountered in the literature on mime.) It has been fairly comprehensively answered by reference to the differing amounts of time required for sign and mime depictions, the extensive conventionalized vocabulary of sign languages, their complex grammars, their broad range of situational and social variants, and their communities of users who recruit it for a full range of social and cultural purposes (Johnston and Schembri 2007; Klima and Bellugi 1979; Stokoe et al. 1965). However, without denying the rich complexity of sign languages in any way, we need to acknowledge that there is clearly a continuum from gesture to mime to sign (Eastman 1989; Fuselier-Souza 2006; McNeill 1992; and Capirci and Volterra 2008 *inter alia*).

Much of the work by sign language poets that we have studied relies on conventionalized sign language vocabulary (i.e., "words") to express and present its message, and thus it is clearly very different from mime (Sutton-Spence 2005). However, Niedzialkowski (1993) has observed that mime is not "acting without words but is acting beyond words" (p. 2) and it is also clear that the highly artistic sign language of some poets has moved "beyond words" into a realm of visual and kinetic immediacy, where conventions and grammar have receded into the background, allowing intensely powerful corporeal images to come to the foreground. That is when the question of its relationship to mime needs addressing again, asking this time the question: "How does the highly visual creative

work of sign language poets compare to the highly visual creative work of mime artists?” Our first step is to understand what we mean by mime and pantomime.

Mime and Pantomime

Problem of Definitions

The terms *mime* and *pantomime* are frequently used almost interchangeably or as two halves of a binomial expression that, taken together, generally imply communication by the body without the spoken word. While many commentators from within the world of mime have attempted to draw distinctions between the two, there is no consensus and it will not serve our purpose here to try to identify one. As Rolfe (1979) has said, “Any definition inevitably brings to mind its exceptions, and both these words have continually changed over the years” (p. 6).

Although we perhaps cannot define mime any more definitively than we can define poetry, we do need to explore what different people understand by the idea of mime if we are to be serious about the question of what distinguishes artistic sign language from the art of mime. It may be a “wordless expression of sentiments, emotions, ideas by gesture or movement” (Baker 1970, p. ix). For Kipnis (1974), it is “a way of expressing oneself and, in particular, a way of expressing ‘things’ and ‘situations’ with the use of only the body” (p. 4). He goes on to say that, “with nothing and nobody around him, the mime acts in such a way that his audience not only understands but actually ‘sees’ the world of objects and beings created before him: *Mime is the art of creating the illusion of reality*” (p. 5, italics in the original). Rolfe (1979) offers a string of definitions of mime, including, “the art of silence” (p. 7), an art form “where gestures represent ideas, attitudes of mind or aspects of nature, all in an effective and concrete manner, instead of representing words or sentences” (p. 7) and “a representation of reality by means of actions, with or without words” (p. 8). “Words” is clearly intended here to mean “spoken words”. To the extent that sign language poets sometimes appear to have moved beyond the conventional vocabulary of their language, we may say they are also often not using the “words” of their language. In this sense, it would seem that these definitions of mime can thus encompass elements of what sign language poets also produce.

Objective Versus Subjective Mime

Some scholars of mime have distinguished objective and subjective mime. In *objective mime* the body shows how an object affects the body (for example, walking upstairs or into the wind). This is shown through the “illusions” described by Kipnis (1974) and, as we will see in our analysis of anthropomorphization, both sign language poets and mimes make use of it. In *subjective mime* “the states of the soul are translated into bodily mime” (Leabhart 1989, p. 63). Much of this subjective mime has derived from the work of Etienne Decroux and his *mobile statuary* (Decroux, in Leabhart and Chamberlain 2008). Some mime concerns itself purely with abstractions, so that narrative is abandoned in favor of muscle movements and holds to represent psychological, emotional or instinctual universals in humans (Bourquin 1979). The external movement of miming in such instances is motivated by an internal source, making it a physical way of expressing emotion, the state, the character, the soul. We will see that this approach to mime allowed the mime artists we worked with to explore representations of a range of abstract qualities in ways rather

different from the sign language poets. The four mimes in the study here reported that in their work, they often combine objective and subjective mime.

Miming a Message

Modern mime, as it emerged in the 1970s, was acutely political, positioning itself as socialist, surrealist, and anarchist, addressing themes such as authority, injustice and social fragmentation (Leabhart 1989). Following the lead of Decroux, modern mime performances did not expect audiences to translate or decode mimes' gestures but rather to understand the message through interpretation of analogy and metaphor. Their aim was to give movements meaning that was independent of words. This highly abstract, "emotional", "internally motivated" use of mime is not widespread in the work of the signed poets we have seen.

Corporeal Mime and the Use of the Face

Corporeal mime is a technique that is now most strongly associated with Decroux, its strongest proponent. Introduced by Jacques Copeau, it is a form of mime that reduces the importance of the face in communication to the minimum, transferring the expression of emotion to the body. In its most extreme form, mimes covered their faces entirely. While Decroux's form of mime eschewed facial expression, for many other mime artists, such as Marcel Marceau, the face is crucial for expression of emotion and characterization. Aubert (1970), in remarking about how emotions are shown primarily through facial expression, fills over 70 pages of his book with facial expressions that may be used in the art of pantomime. Thus, while we may say that certain forms of mime do not use facial expression, many do. And, while there is no doubt that sign language poets do show emotion through their bodies, facial expression is crucial to their performances. Both the mime artists and the sign language poets in this study made extensive use of their bodies and faces to express emotion in their anthropomorphization tasks.

Use of Props and Sound

Some mimes use props as part of their performance (Davis 1979). Charlie Chaplin, for example, used a range of objects as part of his performances without speech. While it is perfectly possible for a sign language poet to use tangible objects as props, the poets we have studied do not; the hands are used to represent objects or the manipulation of the objects rather than to manipulate them in reality.

A mime performance may not be entirely silent, as some mimes incorporate speech, music, and other sounds such as those made by hands and feet into performances, supplementing wordless gestures. While it is uncommon, sign language poetry can also include sound. In the performances of the Flying Words Project (2006), the hearing partner Kenny Lerner speaks while the deaf partner Peter Cook signs (or vice versa, as in their piece "I am ordered now to talk"). Their performances do not rely on speech, but speech is necessary for access by the hearing, non-signing members of their audiences. Paul Scott's BSL acrostic poem "Home" (Scott 2010b) uses sound as an integral part of the work, which closes with a scream to shock the hearing members of his audience into understanding the emotional nature of his relationship to sound when he is home.

Marcel Marceau and Narrative Mime

For most modern audiences, mime has come to mean the style of silent acting used by the French mime, Marcel Marceau. Bourquin (1979) has observed that the concept of mime is so strongly linked with the work of Marceau that most people will say “Mime? Why, it’s Marceau!...Whatever does not resemble Marceau, it’s not mime!” (p. 4). There is much that Marceau put in his performances that we see also in signed poetry. His vignettes followed a narrative structure with a traditional beginning, middle, and end. Rather than being overtly political and challenging of the status quo, Marceau aimed more to entertain, as he depicted someone walking the dog or selling balloons (Leabhart 1989), although behind these entertaining narratives there could often be some more profound comment on a universal theme, such as humanity’s power over nature.

Much of the signed poetry we have studied takes this Marceau-like approach. It has often been noted that non-scholarly audiences of poetry find poetry that deals with concrete things that one can touch and see is far more appealing than abstract conceptions. Ye (1996) quotes Arthur Waley’s observation that “ordinary people in England have very little use for abstractions and when poetry, under the influence of higher education, becomes abstract, it bores them” (p. 132). Most audiences respond best to poetry that expresses abstract and general ideas through concrete images and we have observed that signed poetry often presents concrete images, even where it also delivers a deeper message. Thus, we can see that popular modern mime and popular signed poetry use similar methods to achieve similar aims with their audiences.

Given the brief review above, we might argue that the definitions of mime or pantomime are so varied that they encompass some of what we see in signed poetry as one form of mime. Many sign language poets create work that has little or no vocabulary from their own sign language, so that it is frequently performed successfully to international deaf audiences. In both art forms there are “no words at all, nothing but action” (Aubert 1970, p. 152). Space is the “canvas” to portray powerful visual images without recourse to words, whether through mime (Marceau 1993) or through sign language poetry (Eastman 1989) and frequently for the poets, without recourse to the more conventionalized vocabulary signs of their language. So our question becomes “How does the highly visual mime of these signing deaf poets compare to the highly visual mime of non-signers?”

Study Participants, Data Collection, and Analyses

All data were collected from professional artists, all of whom have requested that we use their names in this research, to recognize their contributions. The four deaf British sign language poets, Richard Carter, Paul Scott, Donna Williams, and John Wilson, used their native British Sign Language and were filmed in a private home in Bristol, England. All of these poets have had many years of experience performing their poetry in public, mostly in England, but also in other European countries and in the United States. The American professional mimes, Emily Mayne, Don McLeod, Lorin Eric Salm, and Dennis Schaller, were all filmed in a session held in a small studio in Los Angeles, which is their base of work. All have worked as mimes on stage and in addition several have worked in movies or as advisors to animation film studios. Although one could regard them all as “modern” mimes who have been influenced by Marcel Marceau, individually they have had additional experience with other schools of mime including Decroux’s *Corporal Mime* (Lorin),

Japanese *Butoh* (Don), as well as classical *Bharata Natyam* from south India (Emily). Both Dennis and Emily also have a background in dance.

The mime artists were given the same list of concepts listed earlier that the poets received, in the same order: first 10 animate entities, then 10 inanimate entities and finally 10 abstract qualities. They were also given the same instructions that were given the poets in Study 1. They were also encouraged to improvise other entities or qualities not on the list, as well as to comment on their own and their fellow artists' attempts during the session.

The 3-h sessions with each group were videotaped in their entirety, the poet group with one camera and the mimes (who moved around more) from 3 camera angles: one stable wide-lens for the whole group and two handheld cameras following movements of the individual mimes. This provided us not only with documentation of the finished representations but also with “shared thinking” about the processes they went through in building up these representations (West and Sutton-Spence 2012).

We analyzed both the discussions and improvisations during the two sessions that followed from these tasks given to the two groups. For the poets, a written English translation of the poets' discussions was made (by Donna West). For the mimes, their discussion points as well as tagging of their mime improvisations and transcription of many of their spoken remarks during the session were annotated in ELAN. The sign language poems which resulted from this study are all available as part of the BSL poetry anthology. (<http://www.bristol.ac.uk/bslpoetryanthology>).

Overview of Resulting Content

Different Responses to the Task

We should acknowledge at the offset that, despite using similar sets of stimulus materials, it quickly became clear to us that we are not closely comparing like with like, as a result of the different decisions made by the two groups on how to respond to the task we gave them. The sign language poets responded often by creating short narrative vignettes as they explored the anthropomorphization of all the entities. These were created and signed rapidly, often in a few seconds so there was a strong focus on the entities “doing” something. The mime artists tended to create the “essence” of the entities, exploring their shapes and the way they moved so that the key impact on us as spectators was the entities “being” something.

Perhaps as a consequence of these decisions, there arose another interesting difference. The mime artists spent a good deal of time at the beginning of the first session with animals discussing the degree and direction of the anthropomorphization. Lorin voiced their thoughts this way¹:

There's a line, I can imagine, between a human being and the animal, that could be moved closer to the animal or closer to the human, where...you anthropomorphize the animal but if you bring it close enough to the human being, then it would become more like taking the human being and giving the human a trait of the animal. Can we think anywhere along that line that we want?

In their subsequent improvisations, which focussed on showing the animal, the mimes stuck pretty much to the “animal” end of this line. For the poets, on the other hand, this

¹ All of the direct quotations from the deaf poets and the mimes who participated in this study are based on the written transcriptions of their remarks. Signs or gestures, which were made accompanying these remarks are described in square brackets.

issue never came up in their comments, as they rapidly moved into creating narratives for the actions of which anthropomorphized animals rather than the more derivational “zoologicalized” humans were easier to produce.

Multiple Characters

As part of their narrative vignettes, the poets often introduced multiple characters into their performances, using sign language grammar and vocabulary to do so. They cut readily between the characters’ roles, showing them with the more mimetic elements. However, in order to follow the more mime-like part of the poet’s narrative, the audience would need to be able to understand the sign language vocabulary and grammatical structure (including classifier constructions) underpinning it in order to identify the acting referents and their relationship to each other: A submarine has sailors in it, a street lamp watches people below it, a bicycle has riders upon it and a spoon is put into a person’s mouth.

In the mimes’ improvisations, there was generally less frequent overt reference to showing multiple characters. Kipnis (1974) observes that mime does not find it easy to show conflict between two equal characters (especially if the performance would require simultaneous reactions from them both). He remarks that “the solo mime’s seesaw between characters can become laboured and confusing” (p. 199). The audiences for signed mime do not appear to struggle with rapid shifts between characters.

Most of the multiple characters shown by these mime artists were in successive representations, going back and forth between showing the entity or animal and then a person’s reaction to it. In commenting upon a fellow mime’s depiction of a butterfly, for example, the mime artist Don said:

It’s really nice, the seamless transition to use a part of your body to be the butterfly for example [making a butterfly-like movement with both hands] and then the person watching the animal [the mime’s head follows butterfly movements flying away] ... you have relating to it, then seamlessly morphing into the creature, and then back to the human relating to it.

Linguistic Communication Between Characters

The deaf poets seemed to enjoy creating ways in which their anthropomorphized animals could communicate with each other, often showing how they would sign. Exploring the difference in anatomies that allowed them to sign with different handshapes, they created an octopus that signed with curving index fingers, lions that signed with a “clawed” 5-handshape, pigs using a flat B-handshape split at the middle and ring fingers to reflect the cloven hoof, and snakes that signed with either a 1-handshape (to reflect the long thin snake) or a bent V (to reflect the forked tongue). See the illustrations of these handshapes in Fig. 1. We will come back later to look more closely at the implications of using of using sign language in the anthropomorphization performances of the poets.

Occasionally the inanimate objects signed to deaf humans: a clock has a normal conversation with a human and finishes with the sign TOUGH!² (meaning “that’s too bad—just

² Signs are indicated by what signed language researchers term *glosses*, which are spoken language words written in all capital letters (e.g. ALIVE) to indicate they are to be viewed as identifiers of the signs but not necessarily full translations of the signs’ meanings.



Fig. 1 Handshapes used in conventional BSL signs and in these poems. **a** Claw-5-handshape. **b** 1-handshape. **c** B-handshape. **d** V-handshape

accept it”) that is made with a 1-handshape (the correct handshape for this BSL sign), just as a clock-hand is represented with a 1-handshape. Mostly, however, if the objects used sign language it was between each other; people were not expected to understand the signing. The cutlery in a drawer signed to each other. A streetlamp signed almost to itself, “I can tell, something is about to happen!” and when detectives investigate a murder that occurred underneath it, it signs “None of you realize, ME ALIVE HUMAN HAVE.” But the humans cannot communicate with the lamp. Similarly, a submarine that floods itself to make the sailors evacuate it sails on alone, having signed to itself, “At last! I can be left alone!” but it does not communicate directly with the sailors.

In contrast to the poets, modern mime artists, as described previously, do not consider linguistic communication a valid aspect of their art. Marceau (1979) writes of mime: “Dialogue is not within our range” (p. 149). It is thus not surprising that there were no instances of linguistic communication between the mimes’ anthropomorphized characters in our study.

Non-linguistic Communication Between Characters

Many of the objects anthropomorphized by the poets do not sign because they do not have the physical abilities to sign. As reported in West and Sutton-Spence (2012), the poets said during their jamming session:

Richard: The spoon can't sign can it? Only facial expression and then when it leaves the drawer it says 'bye-bye' to its friends.

John: But how? How does it say 'bye-bye'?

Richard: Through its face.

John: But it signed! So it means we accept that the spoon signs.

Rachel: I think we do accept it.

John: Yes, we have to...but, when Richard did the spoon saying 'bye-bye', in my head I saw a spoon without hands! So yes, I see his character, but I also see just a spoon! So Richard-as-spoon is blended with the image of a spoon.

Many of the poets' entities in the data collected for this study communicated only through facial expression. Paul observed that to his mind, "They have characters, yes, but they don't sign." Richard agreed, with his example of the pencil, saying:

When it comes out of the sharpener, and it's happy—it communicates that on its face. Which alters when it gets blunt [mouth turns down] and that happens over and over so it's through facial expression.

The poets John and Donna suggested that the light bulb could use Morse code to communicate. But Richard also suggested the following (see Fig. 2):

The fork, has four fingers so maybe two on one hand and two on the other, so it could fingerspell maybe? Or two and two—above head as prongs, then brought down to neutral space can sign *WHERE*?

[Compare Fig. 2a for the conventional BSL sign for "where" made with 5-hand-shapes with Fig. 2b for Richard's creative version using two V-handshapes.]

Then return to top of head again [four prongs]—or can sign *WHY*?

[See Fig. 2c for the BSL sign for "why" made with a 1-handshape and Fig. 2d for the poet's version in which two fingers remained pointing up from head for the prongs, and the two fingers on the other hand are brought down in front of head to sign *WHY* and then return to top of head.]

...Yes, if it can bring its prong-fingers down from its head, it can sign, the fork can definitely communicate.

In some poems created by the poets outside this study, there is no signed communication by anthropomorphized entities at all. The frogs in Richard's poem "Prince Looking for Love" (Carter 2009) and the main character in Paul's "Doll" (Scott 2010a) never sign, and only communicate by facial expression and body movement. (Both poems are available at <http://www.bristol.ac.uk/bslpoetryanthology>.)

Although the deaf poets worked closely together to create vignettes, often with multiple characters, they did so by creating individual vignettes; we never saw situations in which two or more poets participated in 'group vignettes'. The mime artists in our study, while not creating multiple characters within a single piece, did create a couple of situations where they were able to interact with each other. In comparison with the poets, the mimes' narratives took longer to unfold, perhaps partly because in this situation of improvisation, it took time for the performers to negotiate "story-lines" with the other performers (but

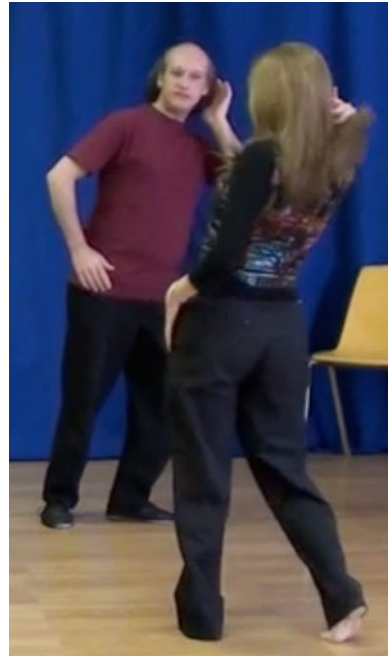


Fig. 2 Creative and conventional signs for WHERE and WHY. **a** The conventional BSL sign WHERE? Made with 5-handshapes. **b** The conventional BSL sign WHY? made with a 1-handshape. **c** The creative sign WHERE? for the fork made with a V-handshape. **d** The creative sign WHY? for the fork made with a V-handshape

perhaps also influenced by more cognitive factors we will consider in Section 6). After wrestling with the task to anthropomorphize a mirror, for example, Lorin says he has difficulty with thinking how to do that without involving someone else because the mirror's essence is reaction and without the reaction to something else, the mirror is nothing. Finally, after about 1:45 min, he and Emily settled upon a sequence in which Lorin, as the mirror, assumes a neutral posture but livens up when Emily walks by the mirror, which imitates her movements (shown in Fig. 3).

This, like all of the communication in the mime artists' little interactions was, however, non-linguistic. In an impromptu performance of a cocktail party devised by the mime artists, attended by a spider, a chicken, a monkey, and a snail, the animals all interact and attempt to communicate in an anthropomorphized human way appropriate for this social

Fig. 3 Mime artists Lorin and Emily collaborating to create the Mirror



setting (for example, in shaking hands, offering and receiving food and drink, flirting, and dancing together) but, again, there was no attempt at linguistic communication.

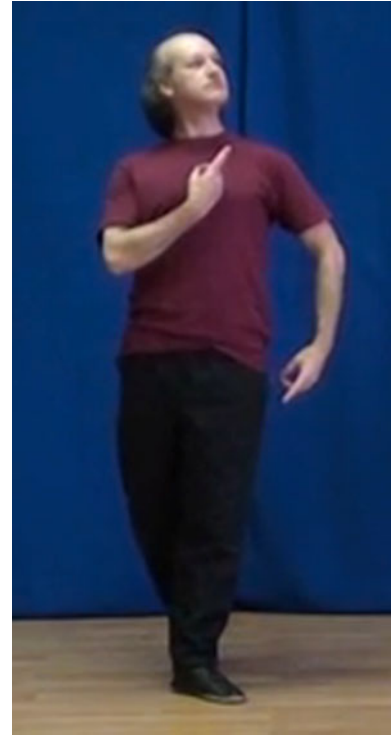
Anthropomorphizing Abstract Qualities

When we asked our poets to directly represent abstract qualities, they found it hard at first. They could, for example, use a conventionalized sign, which has some lingering but revivable iconic relation between the form and meaning. For example, the poet Paul used the cupped-hand “C”-handshape of a BSL sign *CONFIDENCE*. This sign is normally articulated at chest height with the hand oriented so that the “C” shape is upright. However the poet here placed it on his other hand, with the orientation such that the “C” shape appeared to have slumped forwards. As the personified confidence regained its confidence the “C”-handshape slowly righted itself and began to float upwards.

Another technique used by the poets was to become some object or character that showed the quality. For example, to show “Envy” the poet Richard became a house that envied the house next door (although he then switched to be an envious housewife); for “Beauty” the poet Paul became a woman whose beauty was hidden within, and for “Death” the poet John became death in a gentle human form. The mime artist Emily also used this technique when she became an “envious woman” but there is a noticeable difference between her “non-signed mime” and the poet’s Richard’s “signed mime” which lay in the strong focus on the non-verbal expression of envy in her performance while Richard’s performance contained a strong narrative thread.

For abstract qualities, however, mime artists appear to have the edge for providing conventionalized images thanks to the development of Decroux’s *mobile statuary*, as attempted personifications of the quintessence of a range of approximately 40 human qualities. The mime Lorin was immediately able to adopt “stock” poses of body, head,

Fig. 4 Mime artist Lorin performing “arrogance” using a stock pose



eyes, legs, arms, and hands, derived from Greek and Roman statuary, and which encapsulated the external impressions of human qualities and emotions such as Pride, Arrogance, Vanity, and Envy. Hand configurations and movements for these showed symbolism behind the quality so that closing fists indicated stronger emotions such as Envy or Anger and the “pointing hand” showed more self-referential ones such as Pride and Arrogance (see Fig. 4). “Honesty” used an open hand to symbolize giving. The mimed poses of Courage and Loyalty are similar but differentiated by the direction of the head (straight ahead versus respectfully down). These poses could further serve to provide the basis for representation of an emotion or quality in another character, perhaps by adopting from the stock gestures the tension of the limbs or the weight distribution on the legs.

Lying, Negating, Showing Ambiguity

Sign language poets have the great advantage that with one or two signs that they have in their vocabulary, they can expect their audiences to understand the context, including one of fallacy or ambiguity, from which their signed mime can proceed to develop.

The communication of lying, negating, or showing ambiguity is lacking in our mime data. Marceau remarks on this limitation of mime when he observes that the explicit nature of mime means that fallacy and ambiguity cannot be expressed: “...one cannot mime ‘This is not my mother, she is my mother in law.’ To say that, one uses a placard. Or better still, one eliminates the mother-in-law!” (Marceau 1979, p. 149). Further research would be necessary to show us how far Marceau’s view holds in all performance mime.

Overview of Techniques/Form

Cuxac's 'Highly Iconic Signs' and Transfers

The description of *Highly Iconic Signs* by Cuxac and his colleagues (Cuxac and Sallandre 2008; Sallandre 2007) has emphasized the importance that signers attach to “showing while telling” and has demonstrated that it is a major characteristic of much of signed discourse. While conventionalized lexical signs, designed primarily to tell rather than to show, may have some iconic form, Cuxac terms this *degenerated iconicity* because the signer must not necessarily have a specific illustrative intent behind the use of these signs. Of course, in some situations, some of these conventionalized signs can be *re-iconized* (Cuxac and Sallandre 2008; Konrad 2011), bringing out the latent imagery of the sign for some specific purpose of the discourse at hand.

Cuxac uses the concept of *transfer* for a cognitive operation that presents a signer's experience within signing space, and also the structure used to perform that operation. He has identified three different transfers that allow signers to show, illustrate and demonstrate while telling.

- In *transfer of person*, signers become the person, animal, or object they wish to show by mapping as much of the referent as they can onto their own body.
- In *transfer of situation*, whole entity classifier handshapes are used to represent the referent as it is presented in space, or moves through it (sometimes termed *whole entity classifiers* as in Johnston and Schembri 2007) while the signer's facial expression is that of the agent portrayed in the action.
- In *transfer of size and form*, the handshape shows the partial or total size or form of the object or character, often by delineating its outline, although the signer's eyes and mouth can also indicate its size.

Importantly for our comparison of signers with non-signing mimes, signers can combine transfers (Dudis 2007, calls this in some instances *partition of signing space*) so that, for example, if an apple is being chopped by a cleaver, the apple is shown by transfer of person and the cleaver by transfer of situation. Thus the signer places his hand, showing the cleaver, on his head, showing the apple. Essentially this allows signers to blend character role and narrator role in the same moment—the apple is the character and the fact that there is a cleaver at the apple's head is told in some way by a narrator (Mulrooney 2009).

Use of Transfer of Person

The mime artists used a technique by which their bodies took on some of the characteristics of the concept they represented with their hands. The mime Lorin in this study describes this technique when talking about a beach ball:

I can just show the object, can show the shape of the object, and can even do things with the object and that shows you certain things about it. But if I take on the qualities of the object in myself...I become the roundness of it, the softness of it, the lightness of it. I'm not directing attention to myself, ...and I'm not becoming the beach ball...I'm not being a beach ball, I'm handling a beach ball...but I'm helping you see what it's like by taking all the qualities of it in my body...That's a key thing in illusion...It's somewhere between becoming the object and showing the object.

Von Pawlikowski-Cholewa (1963) describes what mimes do this way:

The body is everything: a little insect and at the same time a human being. And there is no division. Hand or hands are not just butterfly; head, face, body, and legs are not simply human; the hand which is butterfly is at the same time the hand which catches and holds the butterfly. (p. VI)

Niedzialkowski also describes how a mime artist should find the characteristic that typifies an object and take that into the body. He suggests that to represent a bird in flight, the mime would not show it by arms becoming the wings but instead should consider the lightness of air around the bird and its speed and effort of movement. Thus the mime “takes out the essence of the bird’s flight and lives it without ever trying to really become the bird” (Niedzialkowski 1993, 71). Chasing a butterfly, the human body takes on the butterfly’s lightness and quickness. Mime artist Don said: “Your head becomes the butterfly fluttering”. Playing with a beach ball, the mime’s body takes on a similar lightness, as commented upon in the citation above, where Lorin talks about the way in which his body shows the lightness of a beach ball as he plays with it. When Emily portrayed the abstract concept Fragility she became a fragile and delicate person who was delicately handling something fragile. As Don said, “You see it and be it”.

The mime artists in this study almost exclusively used their own body parts on which to map the body parts of the entities. When they became elephants the great majority of their performances relied on transfer of person and they used their own legs to show the elephant’s legs. They never selected their forearms to represent the elephant’s legs. Only exceptionally did they map something onto another body part, notably in their use of their arms to become the elephant’s trunk. There was one brief instance of Emily using her hands to represent the elephant’s ears, although she reported afterwards that she was directly influenced in this by her training in the classical Bharata Natyam (south Indian dance) repertoire (see Fig. 5c). Thus it seems that not having an equivalent part of the body to recruit for the important feature of the trunk or large ears, the mimes press into service the body part that is shaped most like it and moves most like it, making this what one could call a *proto-situation-transfer*.

This strong preference for whole person transfer by the mimes is not seen in the sign poets’ anthropomorphizations. Dorothy Miles’ famous sign language poem “Elephants Dancing” (Miles 1976) is a typical example of the way that poets represent animals. In this poem the elephants’ legs are shown moving back and forth by the forearms. Such a use of the artist’s forearms to represent the elephant’s legs would be, in Cuxac’s term, a situation transfer using parts of the body as classifier forms. (See Fig. 5 for the representation of “elephant” by mimes and a poet.)

We also see this difference in the kinds of transfers used in comparing the mimed and signed descriptions of a frog. The mime Don created a mimed personification of a frog that involved an expert transfer of person. He said: “I start with rhythms (tongue, head, movement), tempos, movement patterns, and basic essence of a frog”. He put his head and body into a posture to match the curved, hunched shape of the frog; he changed his eye aperture; he tightened his lips to make a more frog-shaped mouth and he flicked his tongue in and out as a frog might to catch a fly. His body posture thus became tense and his movements were sharp and froglike in their suddenness. His transfer of person captured many aspects of the “essence” of the frog.

Comparing this with the poet Richard’s frog in his poem “Prince looking for Love” (Carter 2009), we are struck by the additional use of the hands to create body-part classifiers for the frog. Richard’s hands show the position of the frog’s feet, size and shape of the frog’s eyes and the size, shape and movement of the frog’s vocal sac at its throat. Like



Fig. 5 Representations of elephants by sign language poet and mime artists. **a** Poet Paul's performance of "Elephants Dancing" using the forearms to represent an elephant's legs. **b** Mime artist Emily using her hands to represent elephant's ears, a gesture borrowed from classical Indian dance. **c** Mime artists using their legs to represent elephants' legs and their arms to represent the elephant's trunk

the mime Don, he flicks his tongue out to catch a fly, but additionally he uses a swiftly extending finger that darts from the mouth to represent the tongue. (See Fig. 6 for examples of the mimes' and poets' representations of a frog.)

We see the same approaches when considering inanimate objects. The mime artists mostly presented the submarine with the whole body, although Emily did briefly use her arm to present a periscope. They gave consideration to the characteristics and motivations that one might attribute to a submarine, and they lowered themselves toward the floor.



Fig. 6 The mimes and poets' differing techniques for the identification of the frog. *Left* Mime Don's frog and use of his tongue for a frog's tongue. *Right* Poet Richard's use of hands and face and tongue for "frog"

For the fork, the two groups' performances showed similarities and differences. When one of the signing poets became a fork, the torso and head became the shaft and the two hands held above the head in a V-shape became the tines. To mime the fork, mime artist Emily used her whole body as the shaft of a fork, and with her arms extended in front of her, her fingers became the tines (in what became a deliciously aggressive fork, as she focused on the potential for stabbing to find the fork's essence of character (Fig. 7a). Lorin also combined the nature of a spoon as a more inert and less aggressive cutlery item with a physical representation of it, as he stood with his hands behind his head so that his arms made a rounded shape as he simultaneously portrayed someone resting with their hands behind their head. Emily took the relaxed nature of the spoon even further and lay sensuously on the floor, using one arm as the extended shaft of the spoon and a curved hand to

represent the bowl (Fig. 7b). Don selected the task of a spoon as offering and carrying something, so he held his arms out wide and curved in front of him (Fig. 7d) and Dennis held two cupped hands close together in front of him (Fig. 7c). For the most part the signers did not show us the shape of the spoon because they quickly made the sign for spoon and then shifted directly into the spoon's character without taking time to show its shape. These characters were less clearly portrayed according to the more abstract essence of their "spoonness" and more simply portrayed in relation to the experience of spoons—reacting to being cleaned or chatting to other cutlery about the functions fulfilled by spoons such as the food they carried. The poet John, exceptionally, did hold one 5-handshape out beside his head in order to show the broad flat shape of the spoon in a way similar to that shown by Don in Fig. 7d.

Individual and Combined Transfers

While the mimes we observed did use what could be called *individual transfers*, the *combined transfers* described by Cuxac and Sallandre are not present in their performances in this data. This may have been in part because there was less narrative in the work of the mime artists and more of a concentration on a portrayal of the essence of the characters. For whatever reason, however, highly visual poetic images, produced for example by the poet Paul, show combinations of transfer that we saw only very rarely in the mime artists' work. In the only instance of mime artists doing this that we could find in our data, Don showed himself as a pencil, and for a brief moment, he used one hand to represent the pencil's point and the other to represent a hand turning the sharpener. In poet Paul's poem "Tree" (Scott 2009), his full transfer of person allows him to become the tree, but his right hand represents the axe that cuts into his side. As the work of the mime artist is frequently described as creating illusions so that spectators imagine they can see what is absent (e.g. Kipnis 1974), the mime might show the tree's response to an invisible axe. The signer, however, uses his other hand to show us the axe as well (see Fig. 8).

As well as this instance of simultaneous presentation of the tree and the instrument cutting the tree, poet Paul gives an excellent presentation of the hand representing the actions of one character while the body and face represent the body and actions of another in his poem "Doll". Thus, when a child is putting eyeliner on her doll, we see that his hand is the hand of the child but his face is the face of the doll—not of the child. This *partition of signing spaces* was not observed in the work of our mime artists. Again we may speculate on the reasons for this, including the fact that our mimes were not providing a narrative with two characters, but we may hazard that, in addition, spectators in a mime audience would fail to recognize the partition of space and combination of transfers, and so interpret this as a person putting make-up onto their own eyes (Fig. 9).

The Frame of Movement: The Stage Versus the Signing Window

When sign language poets choose to show action, transfer of person only operates on the part of the body between the head and the hips. For reference to legs and feet, signers use their hands. Thus standing, sitting and lying down are shown with hands, not legs. For mime artists, the whole body is used. The feet and legs are an essential part of the mime's performance (Kipnis 1974).

When we observed the mime artists' performances we were especially struck by their movements across their stage. When we showed the mimes some of the poets' work



◀ **Fig. 7** Mime artists' use of the whole body to show cutlery. **a** Mime Emily's aggressive fork. **b** Mime Emily's use of the whole body to represent the sensual spoon on the floor with hands representing the entire bowl of the spoon; mime Lorin using the outline of bent arms to show the outline of the spoon. **c** Mime Dennis' spoon with both hands forming the bowl of the spoon. **d** Mime Don's spoon with arms and open hands representing the outline and surface of the bowl of the spoon

afterwards, they spontaneously remarked upon the fact that the sign language poets remained in the same place. Not only do the mime artists move across a larger space, but they also use more of the vertical spatial dimensions (above the head, near the floor). When the mime artists became elephants, they frequently touched the floor as they acted out the elephants' movements picking things up off the ground. Don's chicken pecked on the floor. When Lorin portrayed "death" as part of Marceau's "Descent to the grave", he lay on the floor, as did Emily in her representations of Death and Fragility. When they portrayed submarines, the mimes lowered themselves onto the floor as well and when they all became crabs, Don lay on his back on the floor to free his legs to wave around and move in a more crablike way (see Fig. 10). Emily's spoon entailed her reclining on the floor, partly in recognition of the seductive characteristics she had attributed to the spoon (Fig. 7b). The signers never used the floor for their representations.

The Spider by Poets and Mimes

In their highly entertaining improvised sketch of an animals' cocktail party, the mime artists became a spider, a snail, a monkey, and a chicken, and there we saw strong similarities and differences between the highly visual representations of the animals by the



Fig. 8 Combinations of transfer. **a** Poet Paul showing tree (body and head), ground (left hand) and axe (right hand). **b** Mime Don showing pencil (body and head), pencil point (left hand) and pencil sharpener (right hand)



Fig. 9 Partition of signing space shown by Poet Paul as a child applying eye makeup to a doll. **a** Child applying make-up to the doll imagined in neutral space; left hand holds the doll, right hand applies the make-up and the face is the child's face. **b** Transfer of person showing doll having her make-up put on. The right hand is the child's hand applying the make-up, the left hand is the child's hand holding the doll, and the face is the doll's face



Fig. 10 Mime artist Don's use of the floor to represent a crab

signers and the mimes. For example, mime artist Dennis' spider may be contrasted with the spider constructions performed by the sign language poets. As he became the spider, he crouched so that his legs were bent and matched the posture with bent elbows to create the shape of a spider's legs. However, although his hands were always used as the spider's hands, he also held his fingers out stiffly to echo the slender limbs. The spindly, fragile spider limbs allowed Dennis to play with ways in which the spider held things. As this was a cocktail party, the spider held a glass and, later, a cigarette. However, because the grip was the precision grip of a small limb, the cigarette evolved into a joint of marijuana (Fig. 11). Thus we can see how mime artists, like sign language poets, use the options available to their bodies to map onto the non-human anatomies and so develop the anthropomorphic choices.



Fig. 11 Mime artist Dennis' whole body representation of the spider: his legs represent the spider's legs; his hands show spider's fingers with reference to thin spindly nature of spider legs (one of which here is holding a "joint" of marijuana)

To represent the spider, the sign language poets focused far more on the use of their hands; their arms were less important and they did not use their legs. John did transfer the spider onto his body when he signed and, like Dennis' mimed spider, he used his arms to show the spider's human-like actions, as the spider (who was a Victorian housewife) used her many long arms to reach and lock up many doors. Unlike Dennis's careful use of the spindly spider fingers as hands, John grasped and handled the keys as though the hands were human, but then swiftly shifted back to showing eight scuttling legs, with the eight curved fingers of the two hands. In contrast to Dennis moving his whole body across the

floor, the poet John showed the spider's movement through space by the torso leaning forward.

For the most part, however, the signers' fingers became the spider's legs. Poet Donna transferred the spider (which in her narrative was a hotel detective operating as a security camera) onto her body and face while both her hands effected a transfer of situation and became the eight legs of the whole spider as it dropped on its thread. Her hands also became the spider's eyes as it searched for miscreants and finally the hands became fully human hands as the spider made its arrests by grasping.

The frame of the mime is thus more static than the frame of the sign language poet, even though the mime is more mobile than the poet. By this, we mean that the mime artists can move their entire body through space but that they tend to remain in—and, thus, show—a single character; sign poets are more likely to stay in one space but show multiple characters from multiple perspectives. Mime artist Dennis' body showing his spider moved around a large stage but the bodies for the spiders shown by all three signed poets remained in one place. When the poet Richard showed the spider, we saw a rapid succession of transfers. As his signed spider (who was a hotel porter) led people to their rooms, the fingers were whole entity classifiers representing one person leading others up the stairs and along a corridor in transfer of situation. Then both arms allowed him to show the movement of two legs with one curved finger extended on each hand as the tip of the spider's leg in transfer of person. Finally, each finger became a leg as the spider opened eight hotel-room doors simultaneously. These differences may be seen in Figs. 11 and 12.

The Pencil by Poets and Mimes

The poet Richard and the mime artist Emily both personified a pencil focusing on the importance of the pencil's tip. Emily's entire body became the pencil and her feet were the pencil's tip. She danced across the floor on pointed toes to show the pencil writing (Fig. 13a). She dragged her feet firmly across the floor to erase the pencil's mistakes.

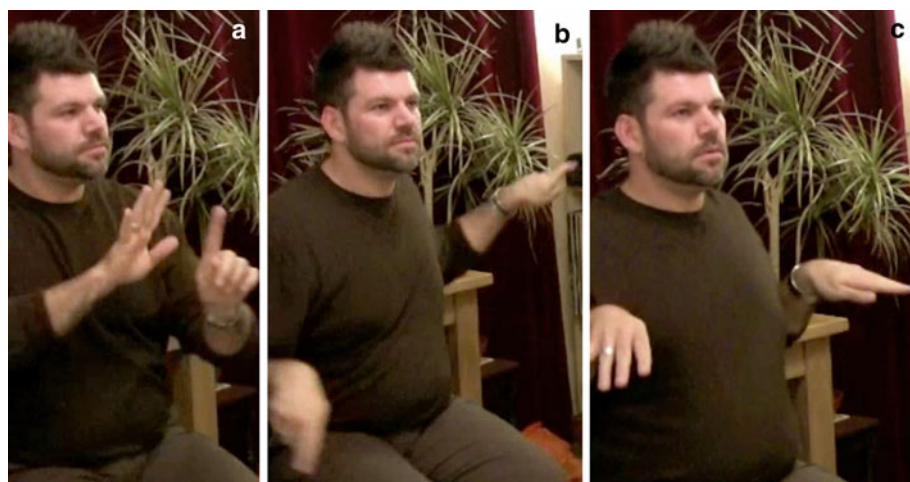


Fig. 12 Poet Richard's use of hands and arms alone to represent the spider. **a** Index finger of the left hand represents the entire spider. **b** One arm and one finger represents one spider leg. **c** Each of four fingers on both hands represents one leg



Fig. 13 The pencil and its sharpener by the mime artists. **a** Mime Emily's pencil with its tip at her toes. **b** Mime Don's hand-cranked pencil-sharpener to fit Emily's head

Logically, once we have accepted that the feet are the pencil's tip, we should expect the head to represent the pencil's eraser. However, it is far more important for the audience to understand that the floor is the paper and the part of the mime's body against the floor is the meaningful part depending on the action it shows. Thus the spectators have no difficulty in accepting that the pencil has now inverted.

Building on Emily's actions, Don offered to sharpen her using a hand-crank pencil sharpener by acting out turning a large handle. He automatically scaled up the size of the hand-crank that he held to accommodate the human-sized pencil (Fig. 13b). He also invited Emily's pencil to stick its head into his sharpener—not the feet. Clearly the practicalities of human movement meant that this was the better option than her putting her feet into it, which would have involved her standing on her hands.

Limitations and Advantages of Whole Body Movements

The ability of the mime to move the whole body across the stage has limitations as well as advantages. For one thing, it is more time-consuming as compared to the poet who is confined to movements of those parts of the body visible in the small stage of the *signing space*. The mimes are working with larger muscle groups than the signers and this simply takes longer than using the smaller muscles of the hands and arms. For example, the mime artist Dennis' spider needs time to move spider-like—his posture is not enough for identification by his audience; Don's frog needs to go through its repertoire of frog-like movements; Emily's pencil needs to make enough pencil-like movements; Lorin's snail has to consistently move across the stage and turn around very slowly and heavily (to show the weight of the shell on his back).

Some body movements are also simply not sustainable over an extended length of time. Emily, with her feet held closely together and on the tips of her toes, first showed the pencil

dancing across the floor, but she quickly found this tired her. She later used her hand and arm stretched downwards towards the floor to sketch out swirling movements, reducing the amount of physical effort needed. Although she acknowledged with a smile that she was capable of standing on her hands in order to put her feet into the pencil sharpener offered by Don, this clearly did not seem a physically practical option. Similarly, the multiple roles shown so effortlessly by torso movement and transfer of situation by the signers (for example the two frogs and the human in the signed poem “Prince Looking for Love”) could be shown by the mime artists, with enough time and running around, but it would not be sustainable for long.

On the other hand, some elements offered by the mime artists might not necessarily be within the skills of all signers. Emily can stand on her hands; Lorin needed great strength and physical control to lower himself backwards slowly to the ground in his portrayal of Death; Don needed remarkable control of his head and neck muscles to move his head as a “chicken head”; and it takes great skill to perfect the angle and posture of Dennis’ head and neck as he became a spider and a bat. Sign language poets are remarkably skilled in their use of the mimetic elements of their language but we should not expect their physical performance skills to be so finely honed. Signers must be able to identify the characters in a more simple way that is closer to the existing phonology of their language.

Showing Size and Form: Differing Use of Transfers

The mime Don continued to improvise a pencil by leaning forward, sticking his own head into the sharpener, cranking the handle and then standing up very straight, briefly making a “point” shape with two flat “B” hands on the top of his head (Fig. 14a). This is similar to the poet Richard’s signed portrayal (see below and Fig. 14b). Don also, very unusually for the mime artists’ performances here, followed this gesture by holding up an index finger while he stands straight, so that his hand plus arm presents the sharp pencil, simultaneously presented by the body. However generally in the mime data in our study, there were very few instances of the mimes using such hand gestures to indicate forms. Alongside Don’s showing the “point of the pencil” with his hand, the other instances were of the mime artist Emily’s holding her curved arms pointing downward out to her side in one of her first improvisations for submarine. However, she quickly abandoned this representation for another in which she used her whole body, a person transfer, crouching on the floor, one leg stretched out slightly more behind her. The mimes also often portray objects by how they would handle them. Lorin explains that one can show the difference between different beverages by how one handles the appropriate container (a water glass, a wine glass, a beer mug). We will come back in the last section to discuss in more detail the mime artists’ apparent avoidance of gestures to show size and shape, using instead person transfers and handling gestures.

In the poet Richard’s pencil, the tip was shown by the two hands forming a point in different locations: It moved out from the face, near the tip of the nose; it was held out in front of the chest and, like the pencil in Don’s mime, held up from the top of his head. The paper was represented by a hand held against the “face as pencil point” so that the pencil wrote by moving the poet’s nose against his flat hand. Richard chose to use a prism sharpener to sharpen his pencil. He held his hands to the sides of his head so they encompassed it, so that they had become the containing walls of the prism sharpener. He moved hands as though turning the sharpener around the pencil and moved his head within the hands (Fig. 15).



Fig. 14 Mime artists' representations of pencils. **a** Mime Dennis's whole body as pencil and hands above the head as pencil point. **b** Mime Don's whole body as a pencil and raised index finger representing the pencil with a sharp point

Both the mimes and poets showed the pencil creatively and highly visually but with recourse to very different strategies, deriving ultimately from the mime's preference for use of the whole body transfers and handling gestures, as well as the floor as a surface for meaning, whereas the signers, who do not use the floor, put more focus on the different uses of the hands.

Visual Vernacular and Cinematic Techniques

One style of art sign language that is sometimes called *Visual Vernacular* bears the closest resemblance to mime. The term Visual Vernacular was coined by Bernard Bragg, an American deaf actor and mime artist. While the exact technique is not described in detail in any publication we have read, performances of his work make it clear that we can see in it the elements of cinematic techniques that have been described by Bauman (2003) and Kinoshita (2005). Mime can also be influenced by films. Leabhart (1989) notes that Marceau drew on the traditions of the American silent films as well as Commedia dell'arte. Perhaps the fact that both signed mime and non-signed mime are influenced by similar cinematic sources can partly explain some of their similarities.

Kinoshita (2005) describes Visual Vernacular as "a method to construct and present a story visually by using cinematic techniques" (p. 22). Instead of using established



Fig. 15 Poet Richard’s pencil in which head and torso represent the pencil. **a** Hands make sharp pencil point in front of the torso. **b** Hands make blunt pencil point at face (cheeks sucked into show blunted point). **c** Nose as pencil point and hand as paper. **d** Hands make sharp pencil point above the head. **e** Nose as pencil point and hands as prism sharpener

vocabulary, the signer uses the body to give a clear visually-produced description of the story. Kinoshita sees visual vernacular as the outcome of the signing storyteller using a “camera in mind” so that the signer uses images similar to those created by different camera distances and angles, speed of images, and editing. According to Kinoshita, the *frame of visual vernacular* is what differentiates ASL storytelling from other performance arts, including theatre, dance, and mime, but although she provides a thorough description of the signing elements of visual vernacular she does not discuss mime in further depth. This idea of frame locates the signer’s story on the upper body. Within the frame of visual vernacular the signer provides perspective shifts, presenting scenes from different distances, angles, and points of view. This idea of visual vernacular closely links to Christian Cuxac’s ideas of *Highly Iconic Signs* (Cuxac and Sallandre 2008; Sallandre 2007).

Descriptions of highly visual poetic sign language and the visual vernacular refer to three different kinds of distance shots that may be signed differently—close-up, medium, and long. These correlate neatly with the transfers described by Cuxac. *Close-up shots* are essentially equivalent to transfers of person, as the viewer sees the full view of the character or agent’s face and the body is seen on a 1:1 scale. *Distance shots* are provided by transfers of situation in which the handshape represents the entire entity as it moves. *Medium shots* use more “body-part classifiers” so that while movement of an entity is shown, it is not that of the entity’s path movement but rather, for example, of a tail waving, a torso moving side to side, or a pair of feet shifting position. Eastman (1989) shows this distinction clearly in his description of three ways that a signer can show a human head and

torso. The signer can use their own head and torso to show it (close up shot); the fist can be used to represent the head and the forearm to represent the torso (medium shot); the index finger can represent the whole person so that the finger tip to the first knuckle represents the head and the middle part of the finger represents the torso (long shot).

A sign language poet chooses which kind of distance shot to show the audience. Mime tends to show the entire transfer of person and it's up to the audience to decide what to focus upon. Some of the mime artist's body parts may be emphasized, so for example a "thinker" moves forward with head first, the "athlete" with chest first, and a "timid person" with their elbows. However, as the whole body takes on a transfer, there is less directed focus on one body part. For example, the mime artists' animals at their cocktail party acted out their human-animal parts as complete transfers on the whole body. The spectators can choose to look at the face, hands, arms, legs, or body but no one part is privileged by the artist. When the signing poet presents the animals, the hands will privilege what the spectator should focus upon.

Discussion of Relevance of Results to Theories of Linguistic and Cognitive Knowledge

In this final section, we discuss how some of the observations we have made in our mime and sign data relate to theories of broader linguistic and cognitive knowledge. We suggest that much of the difference between the work of mimes and signers may be driven by the knowledge the mime artist have of their audience's ability to understand the performance. The kinds of knowledge seem to fall on a scale between shared highly cultural-specific knowledge to more general kinds of knowledge stemming from shared iconic use of the body to communicate concepts, which is available to all human beings.

Sharing Specific Cultural Behavior/Topics/Allusions

The poets' decision to present their anthropomorphizations as narratives versus the mimes' presentations of the "essence" of the characters are no doubt closely linked to one of the factors that most obviously distinguishes the groups: the constant availability of the linguistic tool of a language to the poets, but not to the mimes. The use of this tool can drastically affect how the artists can establish the identity of what they are portraying in a way that their audiences can understand. The identification of a referent can be quickly done by a lexical sign, if the poets choose to do this, resulting in them being free to move on to other aspects of building up the anthropomorphized referents, showing actions and interactions in short narratives, which were the most typical ways the poets chose to interpret the anthropomorphizing tasks we gave them.

The only linguistic analogy to this technique of linguistic labeling for mimes is if the main referent is identified in the printed title of the piece. The mime artist must therefore devote sufficient time to establishing the identity of the referent with the result that, especially within the time constraints (3 h) of this task, our mimes didn't have the luxury of moving beyond showing the anthropomorphized result, the "essence" of their characters, to the building up of stories involving their characters.

There are other kinds of shared cultural knowledge besides a shared language, upon which the artist can draw. Some of the poets' anthropomorphizations require that the audience understand some specifically deaf behavior, such "tapping for attention". For example, when poet Paul anthropomorphizes the light-bulb, electricity from a wire taps a light bulb on the shoulder so it lights up and glows until there is another tap on its shoulder, and the light goes out. Paul also used several entities to create elegant and profound

political commentaries, so that cutlery and glassware in a washing up bowl became an allegory for the “glass ceiling” faced by many deaf people. He also saw that the clock could provide a visual way to explain to deaf children how to live their daily lives.

The mime artists didn’t seem to use many cultural behavior or references that wouldn’t also have been available to the deaf audiences of the poets. That said, some improvisations did seem to require specific cultural knowledge. Most modern audiences who have seen animation films would readily accept that teacups could dance, that submarines have eyes. As one of the mime artists commented, mimes can build on years of Disney’s anthropomorphizing. In another example, to show “star”, Emily strutted like a queen across the stage, an allusion that would require the knowledge that movie queens are referred to in some cultures as stars. Other portrayals involved some knowledge of old films. In Emily’s portrayal of a submarine, her one arm was bent at the elbow and held across her face under her eyes, in an effort to show “stealth”. Only someone familiar with “cloak and dagger” depictions of villains in old movies might recognize this allusion. Lorin’s suggestion that the sideways movements of the crab could also be taken to represent a type of human character who is not straightforward might only make sense to English-speaking audiences, who can refer to this as “sidling up to things”.

The mime artists’ use of the postures and movements showing “attitudes” developed by Decroux would also seem to require some familiarity with either these mime conventions or the statues and paintings that inspired them. Interestingly, Decroux’s attitudes also seem to involve more componentiality, in order to distinguish one attitude from another. For example, as mentioned earlier, the significance of the different head positions in showing Loyalty (head position downwards) and Arrogance (head position straight ahead).

Iconicity as More General Shared Knowledge

Kipnis (1974) writes that the mime must pay careful attention to the audience, noting that “mime is the art of imagining the world together with others” (p. 7, italics in original). He makes it clear that the spectators must use their own imagination to interpret the mime. A spectator “must relate movements he sees to things he knows; he must keep track of an invisible environment, one sometimes in motion” (p. 7). Humans seem to share many interpretations of iconic body movements. As several researchers have pointed out, a clear role of iconicity is “to make the link between language and the real world more transparent” (Perniss et al. 2010, p. 604).

All humans probably understand specific meanings associated with the human body’s position or movement in space and much of this form-meaning knowledge is encoded in the language humans use, i.e., that objects moving up are often lighter/brighter/happier, down are heavier/darker/sadder, as well as associations with body organs such as the ears and hearing; the mouth and talking or ingesting; eyes with seeing and understanding, etc. The role of bodily experiences as a basis for the conceptual metaphors underlying abstract concepts have been dealt with for spoken languages by researchers such as Lakoff and Johnson (1980), Johnson (1990), and Parrill et al. (2010). Persons working with body communication such as mimes or actors have also written explicitly about the metonymic meanings given to body parts and movements, which are also reflected in the language. Bartussek (2010), in his book for training in mime and the stage gives countless examples of visual iconicity and embodiments in the German language: *begreifbar* (understandable) involving the concept “greifen” (grasp); *einbilden* (imagine) involving “Bild” (image); as well as many of the German words that include spatially-based elements (such as *hoch*

meaning “high”) with the association of “superior” (*Kopf hoch, hochnäsig*), “better quality” (*hoch, fein*).

Types of Iconicity

Thompson (2011) points out studies which have shown that the iconicity of signs has a facilitating effect in both reception and production by adults as well as by children. Not only are the grades of iconicity (transparent, translucent, opaque) important factors to consider in these studies, but also the type of iconic coding, i.e., differences between *motor iconicity* (such as the representation of a hammer by the action of hammering) and *form iconicity*, such as representing a cat by its whiskers. Several studies have shown that children learning sign language seem to learn action-based signs such as agreement verbs like give and offer (Casey 2003, cited in Thompson 2011) and handling classifiers (Slobin et al. 2003) earlier than signs that involve more form iconicity (or, in Cuxac’s terms, constructions involving transfers of size and shape).

Boyes Braem et al. (2002) found analogous results in their study in which hearing non-signers and deaf signers of seven different European cultures were asked to guess the meanings of 40 signs from Italian Sign Language, presented in isolation. The hearing non-signers had a much clearer tendency to give action verbs in their language as a response, as compared to deaf signers who would also interpret the stimulus as nominals. For example, the sign showing an outstretch thumb moving towards the area of the mouth was usually interpreted as “drinking” or “eating” by the non-signers whereas some signers would also respond with nouns such as “bottle”, “beer”, “milk”, “baby”, etc. In a study of the orchestral conductor’s use of gestures (Boyes Braem and Bräm 2000), a similar preference for handling gestures was found in the repertoire of gestures showing the desired expressive elements of the music and performed by the non-dominant hand (as opposed to the temporal structuring gestures of the dominant hand).

We have already pointed out that to portray objects, the mime artists in our study tend to prefer handling gestures to those showing size and form. Also when the mimes make reference to two entities simultaneously (for example, a person with a fragile object) the hands show a manipulative and not a shape or size gesture. There are even warnings in the literature on miming against showing too much form with the hands. Aubert (1970) cautioned mime artists to be very careful if they attempted to use “descriptive gestures”. These gestures are used to delineate or measure an object’s size and shape—tall, short, or pointed, for example—and in Cuxac’s terms would be recognized as transfers of size and form. Signing audiences apparently have no difficulty distinguishing these indications of size and form but for mime, Aubert warns that “if these are made more complex there is a risk of their not being understood” (p. 82).

Why should there be this seemingly fundamental human preference for showing handling over form? Pietrandrea and Russo (2007) have observed that because in life our hands can point, manipulate objects, and even represent objects we can use our hands to represent all this directly even if the original context is not present. The problem then is not one of representation for signers or mime artists but one of access of meaning as the spectator needs to know which meaning of the hand is intended. Pietrandrea and Russo use the example of the Italian signs *STONE*, *CAR*, and *PRISON*, all of which use the fist highly iconically, but for which the fist is a round object for *STONE*, focuses on grasping an object in *CAR*, and focuses on the closed hand of the prisoner in *PRISON*. Spectators who cannot readily or rapidly distinguish these will be challenged to access their meaning. Looked at

another way, one could say that form descriptions seem to be generally more highly encoded than handling gestures.

Grounded Cognition Theories and the Preference for Handling Gestures

Barsalou's (2008, 2009, 2010) theory of *grounded cognition* might help explain this preference for handling gestures over form gestures in such different groups such as adult and child signers, hearing persons using gestures and mime artists performing for their hearing spectators. Grounded cognition theory is similar to *embodied theories* of language and cognition, but goes beyond the body to include other mechanisms such as the modality, the physical and the social environment. Central to this theory is *simulation*, a basic computational mechanism in the brain that underlies processes from perception, language, and social cognition. Barsalou (2009) defines simulation as “the re-enactment of perceptual, motor and introspective states acquired during experience with the world, body and mind” (p. 1281). Simulators, which function like categories or types, are developed after experiencing instances of the category over time. Relevant here is the factor of the repeated experiences of a component over time for the relative ease in interpreting handling gestures. As noted in the Pietrandrea and Russo (2007) comment above, humans have a life-long experience in handling objects; this experience is universal, available not only to adult and child signers, but also to mime artists, as well as to their audiences.

The relative ease of interpreting handling versus form-depicting gestures might also help explain the findings in our mime data of simultaneous (as opposed to successive) representation of two linguistic referents occurring usually only when a handling gesture is used for one referent (as in holding a flower and reacting to the flower).

Situated Conceptualizations and Identifying an Object

Another aspect of the grounded cognition theory that might be relevant to our mime data is the importance of the context for the simulations. Unlike amodal cognitive theories in which concepts are treated as isolated entities, Barsalou (2009) argues that the context is important for simulations: “...concepts are not typically processed in isolation but are typically situated in background settings, events and introspections.” (p. 1283). For example, the simulation of the concept “riding a bicycle” would probably involve how the agent acts (pedalling, changing gears) as well as simulations of *introspections* like effort, happiness, trying to go faster, etc. and placing the bicycle riding in a relevant situation or setting (riding in a city, up a steep mountain road, etc.). He terms such simulated representations of categories *situated conceptualizations* of which he gives the following example:

Imagine seeing a coffee bean container that activates a situated conceptualization for making espresso. Although only this component of the situated conceptualization is perceived, it activates simulations of other components as predictions about what could happen next: the container could be opened to reveal coffee beans inside, further actions could be taken to grind the beans and make espresso; psychological states such as pleasure, feeling stimulated, and being more awake could result. (p. 1284).

An anecdote told by the mime artist Don bears a striking resemblance to Barsalou's more general example. Don describes how as a young mime, he showed Marceau his portrayal of picking a flower. He reports that Marceau responded: “No, no, no, it's all too fast. You need to approach the flower, pause to show how you feel about it, pick it, admire

it, and perhaps in the end present it lovingly to another person”. The mime artists in our study seem to view this correction by Marceau as primarily a necessary slower temporal build-up of a mime portrayal. In contrast, they found that the signers they have seen are all “too fast”, and recommended that the signers “should learn to build in more silences”. Seen from a cognitive point of view, however, this time-consuming sequence of actions by the mime might in fact be playing out a kind of situated conceptualization which the mime knows (unconsciously?) all of his audience could interpret: The sequence of actions and reactions of these mimes might be tapping into a broader human knowledge of situated conceptualizations, which ensures that the audience will understand them.

Sign language poets don’t need to go through this time-consuming sequence as they can rapidly make the identity of referents evident to their audience via a lexical sign, in addition to having available other linguistic devices such as the use of classifier constructions to make rapid and efficient portrayals of multiple characters or referents, both successively and simultaneously. This leaves the poets free to go on to build up a narrative, which has its own, different kind of temporal development. However, interestingly, sign poets who choose not to identify the anthropomorphized referent with a lexical sign may also use versions of this time-consuming mime technique, this mirroring of the build-up of situated conceptualization. (We should note, though, that also many sign poems either use a title or introduce an object with a lexicalized sign.) Our mime artists also mentioned that they might use a title to orientate audiences towards the meaning of their performance. However, even where there is no title and no obvious lexicalized sign in a signed poem, audiences may rapidly identify the referent. For example, the frog in Fig. 6b is never named as a frog in the poem “Prince looking for love” but audiences identify the frog from the depiction of the feet and the vocal sac. (They may also be expected to draw on their encyclopaedic folkloric knowledge that young royals looking for love may find it through kissing a frog.)

So if one has the possibility, as the poets do, to quickly identify a referent or multiple referents, why would a poet sometimes choose to include mime in their signed poems? One reason might be that, especially in artistic works, a clear unambiguous reference is not always the only aim of the piece. As Bartussek (2010) writes in his training book for artists who communicate with their bodies (including actors and mimes):

In the theater situation, one plays gladly with misunderstandings and the expectations of the audience. Such misunderstandings and resulting conflicts are necessary for dramatic purposes or one uses unexpected solutions for surprising effects or to make a point. Therefore, in addition to our training of our creative expression and our consciousness of main [body movements] and meta [facial] signals, we need to work in some understandable body behaviors and their possible consequences in the scenic plays. (p. 107, translation from the German by the authors).

The part of the mime Don’s sequence portrayal of a pencil where he stands straight and holds his arm upright, index finger pointing up, might be interpreted as an embodiment representation of the sharpened pencil. However, it could also however be interpreted as the rhetorical gesture that speakers often use when “making a point”. Another example of this kind of ambiguity might be seen in a previously mentioned example of the mime Don’s portrayal of a butterfly. Don himself says he intends his head to become the butterfly (perhaps mirror neurons manifesting themselves as head movements here?); the audience however, may see the same head movement as simply representing the human watching the butterfly. These alternative interpretations of Marceau’s “Butterfly” show, in Von Pawlikowski-Cholewa’s words:

The hands try to hold the fluttering butterfly and are the fluttering butterfly themselves; face and head, shoulder and torso are alternating echo, first the butterfly, then the reaction of the human being. There is the head marking the rhythm of the wings, there the countenance recording and interpreting it, expressing the mood of the person as the beating of wings becomes fainter. (Von Pawlikowski-Cholewa 1963, p. VI)

Like the other mimes quoted previously, Bartussek stresses that the artist must take time for these kinds of mimic representations, but for him the reason is to allow the audience's first impression which might lead to false conclusions and misunderstanding eventually lead to the desired dramatic conflicts.

In the end, one goes back to what basically mime and artistic sign (including signed stories as well as signed poetry) seem to have in common: an underlying artistic aim, which is to “go beyond words” of everyday communication. A poet in German is a *Dichter*, a person who thickens (*dichten*) meanings. The use of mime techniques in both sign language poetry and in mime performances makes available to the artist an embodied form of communication which is not only readily accessible to audiences across cultures, but also can be layered to yield thicker, more polysemic, surprising, dramatic—in other words, more artistic meanings.

Acknowledgments We gratefully acknowledge the participation and insights of the sign language poets (Richard Carter, Paul Scott, Donna Williams, and John Wilson) as well as of the mime artists (Emily Mayne (<http://rhythmicvisions.com/emilymayne.html>), Don McLeod (www.zenbutoh.com), Lorin Eric Salm (www.Lorin.info), and Dennis Schaller). Financial support for this project came from the Julien and Virginia Cornell Visiting Professorship, from Swarthmore College, which also provided the video recording equipment, as well as from the Forschungszentrum für Gebärdensprache in Basel (FZG) and the Arts and Humanities Research Council Grant Number AH/G011672/1. We are especially grateful to Mary M. Fox, who (together with Lorin Salm) made the initial contacts and arrangements with the mimes and the recording studio, helped with the filming, and provided welcoming logistics for the visiting researchers. Martin Haswell was responsible for the video recording and post-production of the mime session. Donna West did the transcription and analysis of the poet data and was responsible for the methodology of Shared Thinking Processes. Finally, we would like to thank the following persons for their helpful comments on this project: Thüning Bräm, Julia Cooper, Mary M. Fox, Donna Jo Napoli, Alison Ryland, Amira Silver-Swartz, and Ulrike Wrobel.

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