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Recommended Citation
https://works.swarthmore.edu/fac-linguistics/41
This is a prepublication version (which is all I’m allowed to post to the web) so there are slight differences from the publication version – the published version came out in 2013 in Gesture 13(1):1-27.

How much can classifiers be analogous to their referents?

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Abstract

Sign Language poetry is especially valued for its presentation of strong visual images. Here, we explore the highly visual signs that British Sign Language and American Sign Language poets create as part of the ‘classifier system’ of their languages. Signed languages, as they create visually-motivated messages, utilise categoricity (more traditionally considered ‘language’) and analogy (more traditionally considered extra-linguistic and the domain of ‘gesture’). Classifiers in sign languages arguably show both these characteristics (Oviedo 2004). In our discussion of sign language poetry, we see that poets take elements that are widely understood to be highly visual, closely representing their referents, and make them even more highly visual – so going beyond categorisation and into new areas of analogue.

Keywords: poetry, sign languages, metaphor, gesture, analogy, classifiers

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Language (often in comparison to other sign languages), creative aspects of signing (jokes, poetry, storytelling, taboo constructions), and language rights for deaf children. She writes fiction for children and young adults (http://www.donnajonapoli.com), and has co-authored a storybook to help deaf children who use ASL learn to read English: *Handy stories to read and sign*. The work reported on here was conducted during her time as Long Room Hub Fellow at Trinity College Dublin in Ireland.
1 Introduction

Sign language poets will often strive to make the visual experience of their work as intense and satisfying as possible to a deaf audience. Much of this visual experience is achieved through visual analogy using the human body. Often, if the signing poets can strengthen a visual image of a concrete referent by creating iconic analogues, they will. If they can use metaphor to make even abstract referents visual, they will. We use the work of several leading sign language poets to consider the analogies deaf poets use to create such strongly visual signs and the limits of creatively visual signing seen in classifiers in sign language poetry.

Within sign languages, certain handshapes “are embedded in predicates and nouns, and serve to index or identify discourse elements on the basis of various physical criteria” (Slobin, et al. 2003, p. 272). It is generally accepted that these various physical criteria motivate the handshape because there is some similarity (though often highly approximate) between the shape of the referent and the shape of the hand representing it. For example, round referents are represented by curved fingers or a closed fist, long and thin referents are represented by individual straight fingers, and referents having two legs are represented by two fingers or both arms. Although there is considerable debate about how to label these handshapes, and exactly what their linguistic status and function is, they are widely called ‘classifiers’ (for a comprehensive discussion of the surrounding debates see Schembri 2003 and Oviedo 2004) and the selection of a particular handshape is motivated by the class of objects to which the referent is allocated.

Despite the clear iconic motivation for these classifier handshapes, the referent of the handshape is an object typically unlike a hand, such as a car or book or cat. Thus,
although there is some perceptual resemblance between the referent and handshape, there cannot be a one-to-one correspondence between the referent and all its various physical aspects and the handshape and all its various physical aspects. Even less can there be an isomorphism between the various parts of the referent and the functions they can perform and the various parts of the handshape and the functions it can perform. Instead signers and their audiences readily select relevant points of comparison between handshape and meaning.

All mappings from referents to these classifiers rely on comparisons, and thus could be termed metaphorical to a certain extent as different aspects of the hand are mapped to different aspects of the referent. Within cognitive linguistics, however, the term ‘metaphor’ has come to refer more narrowly to cross-domain mappings. Iconicity is a mapping between the two different domains of meaning (the source) and form (for example the sign’s handshape or its movement); metaphor is a mapping between two conceptual domains (a source domain that is usually more concrete and often deals with our sensorimotor experiences, and a target domain that is usually more abstract and often deals with our subjective experience) (Meir 2010, p. 869). Iconicity and metaphor become closely entwined in many signs, which frequently involve both iconic and metaphoric mappings (see e.g. Taub 2001 and Meir 2010). Additionally, in many metaphors the conceptual mapping relies upon ideas of perceptual resemblance, as analogies are formed between two sets of elements based on their perceived shared characteristics (Rollins 2001). Some of those shared characteristics can be specified independently of physical aspects, and concern similarities of behaviour, including responses to stimuli. Indeed, the mappings involving classifiers in sign languages can be from concrete objects to concrete handshapes (as from a car to a classifier sign) or
from abstract objects to concrete handshapes (as from a soul to a classifier sign). Both types involve intricate comparisons and, thus, interesting outcomes in the production of analogous signs, although the mappings from abstract objects to concrete handshapes are conceptually more complex.

Our explorations here use examples taken from sign language poetry to highlight how perceptual resemblance, including behaviour, can drive the creation and interpretation of the classifier handshapes in sign languages for concrete and abstract referents. In poetry, we can see the extremes to which the grammar can be pushed, revealing the limits of what is possible.

2 Iconicity: in lexical signs and in classifiers

Despite arbitrariness pervading the structure of sign languages, linguists are increasingly accepting that iconicity plays a large part in the motivation of their vocabularies. While in many cases the iconicity has become sufficiently degenerated that signers have no specific visual intention when they use a lexical item, it is widely acknowledged that classifier handshapes in highly iconic signs are designed to share at least some visual features with their referents (Sallandre 2007). Cuxac and Sallandre (2008) have described clearly how signers may be motivated by non-illustrative intent or illustrative intent when they produce iconic signs. Non-illustrative intent is often behind the creation of lexically stabilised forms and takes a categorical perspective so it ‘tells without showing’. Illustrative intent aims to make visible what is being said so it ‘tells while showing’ and creates highly iconic structures. Despite the creation of highly iconic structures, however, many signs used with illustrative intent still use categorisation as they group referents by their shared properties.
Where signers have illustrative intent to tell-while-showing a particularly strong visual representation of a referent, they may effect this with the use of a transfer. A transfer in this instance is both “a cognitive operation to present a signer’s experience of the universe within signing space”, and also “the structure used to perform the operation” (Cuxac & Sallandre 2008, p. 14). It is important to emphasise that even strong visual representations are selective. Of necessity they will emphasise some aspects of a scene or referent, include or exclude elements and take a certain perspective on the referent (all noted by cognitive linguists such as Croft & Cruse 2004, and Selvik 2006, as being construal operations necessary for linguistic encoding). In the words of the Deaf American poet John Lee Clark, if the world were based on signs in ASL “all trees would/ have five leafless branches/ that never bear fruit” (Clark 2006, p. 3). As we explore the structure and potential of these transfers, we ask what aspects of a signer’s experience the sign language poets choose to foreground and what structures they select to perform the transfer.

Sallandre (2007) and Cuxac and Sallandre (2008) identify different transfers that allow signers to show, illustrate and demonstrate while telling. These include transfer of person, in which the signer embodies the referent and essentially takes on the character role to become the referent by mapping as much of the referent as they can onto their own body (also termed ‘role shift’ and ‘constructed action’ in sign language research), and transfer of situation, in which whole-entity-classifier handshapes represent the referent so that the hand in some way becomes the referent with respect to how it behaves in the sign sentence (Suppalla1986, and many works since). Recall that the handshape usually reflects some aspect of the shape of the referent. In a transfer of situation, the perspective is external and the scene (the movement and position of the
referent) is viewed from a distance. Here we have the widest range of possibilities for analogies between handshape and referent in terms of both physical attributes and behaviour, and it is to this group of classifiers that we will limit our attention.

Iconic signs, as described by Sarah Taub in her ground-breaking 2001 work *Language on the Body*, arise through a series of processes that can affect the final form of the sign at any stage, while still retaining their iconicity. Her analogue-building model offers a cognitive-linguistic view of iconicity, observing that iconicity “is not an objective relationship between image and referent; rather, it is a relationship between our mental models of image and referent” (Taub 2001, p. 19). She uses the ASL sign TREE to show that the creation of an iconic sign involves four successive stages: conceptualization, image selection, schematization, and sign encoding. West and Sutton-Spence (2010) suggest that sign-language poets select unusual perspectives of the referents, especially in the process of anthropomorphisation, to create alternative mental models of the image, which they then use to drive creative and original ways of encoding into sign. Here, we are interested in the limitations to the amount of information encoded and foregrounded in the handshape of iconic classifier signs that represent a given object conceived of as a whole.

In conversational ASL, the conceptualisation of a tree will include anything that signers (and their audiences) might know about a tree. Poets or other creative signers may ask audiences to accept novel information about a tree – for example, that it might have human characteristics and emotions (Sutton-Spence & Napoli 2010) or that it can walk (Cormier & Smith 2008; Cormier, Smith, & Zwets 2012), and we will see in our examples from British Sign Language (BSL) poetry that this can impact the final form of the sign. With respect to images, the signer is expected to select a prototypical
sensory image of a tree. Taub (2001) shows that for ASL the sensory image is visual: a tree that consists of a trunk, spreading branches, and the ground in which it is rooted. Creative signers or poets wishing to present new images may select to direct our focus to different visual aspects of the tree, perhaps asking us to look at it from varying perspectives or distances and so may deliberately deviate from the prototypical image. Slobin, et al. (2003, p. 272) note that classifiers allow signers “options of perspective and viewpoint which provide for multiple means of encoding the same event participants.” Poets’ novel classifiers show novel perspectives and viewpoints.

In schematization, the essential features of the selected visual image are extracted to form a simplified framework that can be represented by signs. We will show from our investigations that poets adapt handshapes in novel ways to facilitate perceptual resemblance between those handshapes (and their behaviours, i.e. movements and positions) and their referents (and their behaviours), where the conventional classifiers for those referents would not so easily (or perhaps at all) be able to elicit the desired resemblance. That is, the novel handshapes allow the signer to set up a framework for telling a story that would be more difficult and maybe even impossible to tell with the appropriate conventional classifiers. In this way the poets manage to maintain the elegant efficiency that classifiers allow without sacrificing range and nuance of meaning. Indeed, the very use of these novel handshapes lets both signer and audience recognize anew the creative capacity of the language (and of the poet), greatly enhancing the aesthetic experience of the audience.

2.1 Factors affecting the articulatory properties of classifiers
In encoding, appropriate articulators are chosen from existing elements in the language to represent the schematized elements. The ASL standard sign TREE, uses the upright forearm to represent 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. We should note that in ASL, the conventional classifier standing for a tree does not use a 5-handshape (with fingers spread) that would show spreading branches, but a flat-B-handshape in which the fingers are together and not spread (see, for example, Emmorey 1996, Figures 9 and 10). (All handshapes mentioned in this paper appear in the appendix.) Thus we already see that the classifier system does not pursue a perfect analogous match between image and encoding but rather chooses the best match from existing options in the language. That is, the manual part of the phonetic inventory consists of arm segments and handshapes, including forearms and the 5-handshape – all the elements in the sign TREE. But the forearm is a better match to represent a tree than the 5-handshape is, hence it is selected as the classifier. However, again, the poet’s job, being to create novel, highly visually expressive forms, may result in different parts of the body being selected.

The handshapes that occur in classifiers are typically constrained by a range of factors, from purely physiological to linguistic to cultural:

- Anatomical possibility - some configurations of the fingers simply are not possible, for example, bending the index and middle fingers at the top two joints while keeping both fingers together at the most distal joints and separating the fingers at the next proximal joints (as if those two fingers were the legs of a ballerina making a plié in first position)
• Physical ease and comfort - some handshapes are easier to make and hold than others. Certain sounds are marked in spoken languages because of articulatory difficulty (such as being made in an extreme place with respect to the vocal tract and/ or perhaps with an unusual articulation – a pharyngeal fricative is an example (Odisho 2005)); similarly, certain handshapes, such as the ring finger extended from a closed fist, are marked in sign languages because of articulatory difficulty (Boyes Braem 1990). If a sign language’s phonetic inventory does not include a given marked handshape, that handshape may be uncomfortable for signers to make, whereas the same handshape may be perfectly comfortable for signers familiar with it.

• Cultural conventions of their sign language - certain handshapes are eschewed for no obvious physiological reason, but perhaps for cultural reasons. For example, even though the middle finger extended from a fist is relatively easy to make and relatively comfortable to hold, and it is used in several BSL signs, it occurs very infrequently in ASL signs (exceptions include the signs TANK and MONUMENT) and we suspect that it is eschewed because of its frequent occurrence in a taboo gesture common in America and elsewhere, but less in Britain (Napoli, Fisher, & Mirus 2012).

The handshape selected for classifiers will also be determined by physical and behavioural properties of the referent. Slobin, et al. (2003, p. 273) have noted that classifier handshapes do not so much classify referents as mark a relevant property of a referent. In the present paper we show that poets find newly relevant properties to
characterise referents. Slobin, et al. (2003, p. 273) further say that the handshape indexes a particular referent according to properties that are appropriate for the current discourse. That is, the “classifier” handshape designates, or specifies, or indicates a referent with a particular property (e.g., two-legged, horizontal plane, etc.).

A poem’s context drives classifier selections and prompts meanings because of specific discourse needs. The chosen handshape also represents a poetic perspective that foregrounds or introduces particular properties to a referent.

2.2 Classifier systems

It is not uncommon to see references to a ‘classifier system’ (for example, Newport & Meier 1985), implying that a given sign language’s grammar has a systematic relationship between handshape and the semantic or size and shape classes of referents. Oviedo’s summary of research on classifier handshapes remarks, “they form discrete sets and have relatively fixed meanings” (2004, p. 55). Much of the extensive research literature on semantic classifiers pays considerable attention to the significance of movement and location of classifiers, and to the widely varying handshapes of handling classifiers, but appears to accept that the handshape of semantic classifiers somehow represents the semantic or physical properties of the entity without much detailed attention to how this is achieved. Indeed, comments such as this one referring to classifiers are widespread: “Classifier handshapes are fixed and defined within the ASL lexicon. Sorry, no fudging allowed” (TerpTopics 2009). Most signers do not fudge; they use conventionalised standard classifiers even to describe exotic scenarios. In data
kindly shared with us by Kearsy Cormier and Sandra Smith (summer, 2012), fluent signers used conventional classifier signs to describe unusual scenarios such as a tree jumping, a triangle moving down the road or a car dancing. Sign language poets, however, have licence to fudge and they can use exotic classifiers to describe quite standard scenarios including, as we will see, a dog approaching a tree or a man walking with a cane. Poets have a vested interest in breaking out of any system, so we may hope to see new categorisations and perspectives brought to what would otherwise be a regular use of classifiers.

Many whole entity classifiers represent objects according to their salient shapes, and these are often conventionalized within languages. Objects with a flat surface, such as a car, a table or a bed may be represented with a flat-B-handshape (as they are in BSL, but not in ASL) even if they are very obviously three dimensional. A sheet of paper and a mirror, for example, will be referenced by the same classifier, and the sign language that uses one and the same classifier for all of these (from car to mirror) is focusing on the flat surface of (part of) the referent rather than on its overall dimensions.

We should note specifically that many entity classifiers show shape but not size. In general, given that the size of the hand is fixed, a handshape forming a particular shape can represent anything of that shape regardless of size. Thus, for example, an extended index finger can represent a bacterial cilium, a person, or a space rocket. In BSL, the circle formed between finger and thumb (the F-handshape – also known as the “precision grip” handshape) represents something round, but it may be a nut or the moon, and indeed audiences may expect to entertain both interpretations as part of a poem (as they may in Paul Scott’s poem *Time*). This use of handshape contour to reflect
the shape of the referent with reasonable determinacy, while size remains indeterminate, leads to a great deal of poetic creativity.

Classifiers may show specific types of shape. Some reveal the overall outline of the referent, including limbs or other protrusions. Depending on what is conventionalised within a particular sign language, the number of limbs/protrusions can be exact or not, where sometimes the very fact that any are presented at all is enough for audiences to fill in the gaps. Classifiers may also show the number of referents and how these referents are ordered or located in space. They can show the internal structure of a referent by using the joints in the hand to map onto parts of the body (Taub 2001, and Cogill 1999 cited in Oviedo 2004). Additionally they can metaphorically give shapes to referents that have no physical form. The suggestion that classifier handshapes may be used metaphorically has been explored (for example, especially Boyes Braem 1981; Brennan 1990, 2005; and Wilcox 2005) with respect to certain vocabulary items, and we will see, that poets take these creative metaphorical uses of classifiers to new levels.

3 What the poets do

Sign language poets take all the factors described thus far into account, but they also need to consider the poetic effect of their choice of handshape. Thus, the relationship between the referent and the handshape used to represent it may be mediated by the rhyming scheme of the poem or some other sort of internal patterning of the piece. The metaphors and other figurative tropes driving a poem will also impact on the handshapes used. Therefore, manipulations of entity classifiers may make them more or less analogous to their referents depending on the poem’s requirement.
We now draw examples from the work of several sign language poets, focusing specifically on two British deaf poets, Paul Scott and David Ellington, and on the American Sign Language (ASL) poetry partnership of Peter Cook and Kenny Lerner, but bringing in examples from other sign language poets where relevant. The BSL work, and the work of other sign language poets, may be seen at www.bristol.ac.uk/bslpoetryanthology. The ASL work, and the work of other sign language poets, may be seen on various sites on the Internet (including www.signinghandsacrossthewater.com) and in commercial DVDs. Sign language poetry, being the highest linguistic art-form in the Deaf community, frequently foregrounds the language by means of novel and aesthetically-driven constructions within the language. This obtrusive use of irregular extensions of the language (Leech, 1969) makes the work of sign language poets the perfect place for us to investigate the extent of analogy in classifier uses.

3.1 Physiological analogies

Analogies may have to do with the physiological properties of a handshape and a referent, whether those have to do with appearance or behaviour.

3.1.1 Analogy to shape of referent: number of limbs

Paul Scott’s BSL poem Tree is constructed almost entirely of classifiers, most of them being whole entity classifiers. The poem provides two specific examples of highly creative whole entity classifiers that do not exist in BSL (nor in any other sign language that we know of). The usual whole entity classifier for a dog, or many other mammals, in BSL (and ASL) uses the bent-V-handshape (index and middle fingers extended and
curled), which may be seen to provide analogous structures with the animal’s two front legs (and indeed this classifier handshape is used to represent the cat as it jumps into the tree. Paul Scott’s novel classifier for the dog, however, provides a much more detailed analogy as the index finger and ring fingers represent the front legs, and the thumb and little finger represent the hind legs. The middle finger, extended and pointing forward, represents the head and neck, as seen in the first frame of Figure 1. The novel classifier delights audiences by the wit of its creation and the creatively close visual analogue. Additionally, it permits the visual representation of the dog cocking its leg against the tree, as seen in the second frame of Figure 1. It is anatomically easy for a signer to raise the thumb sideways in a manner analogous to the way a dog might raise its hind leg. It is anatomically impossible to move either the index or middle finger in the same way when they are part of the bent-V-handshape in the conventional entity classifier for the dog. It is also visually meaningless for either of these fingers to “cock its leg” because they focus solely on the forelegs as the property of the animal. This whole-entity classifier sign initially is understood to represent the overall shape of the dog but the subsequent movement of the thumb highlights the separate body-part of the hind leg.

<Figure 1 goes around here>

The second notable whole entity classifier represents the blind man who negotiates the tree on his walk. The conventional whole entity classifier for a human is the upright index finger (the 1-handshape) but in this poem, Paul Scott adds the middle finger, extended and pointing forward, to represent the blind man’s cane, as seen in Figure 2. The approximate height analogy between the human and the cane and the index finger and the middle finger and the relative angles permitted by flexing the middle finger at the base knuckle make an excellent close visual analogy in a way that
would not be expected in conventional signing (where we would normally expect a shift in perspective to create a transfer of person directly showing a person handling the cane). Additionally, the anatomical structure of the hand allows for the ‘cane’ to move up and down by repeated flexing of the base joint. Twisting the hand at the wrist (with movement of the radioulnar joint) allows for a more rotating movement so that the poet can show the man feeling his way up and down and around the tree in whole entity form. This exceptionally creative sign represents two separate, independently-moving entities on the same hand. We are familiar with two handed classifier signs that show how two entities interact (for example the V handshape of the dominant hand may straddle B handshape of the non-dominant hand to show a girl climbing onto her bicycle) and it is well-recognised that additional fingers can show several upright entities (for example, in David Ellington’s *The Story of the Flag*, where each finger on the open hand represents a different horseman – see Figure 4). However, to show two separate entities, moving independently takes the analogy to a new and highly creative extreme.

In Peter Cook and Kenny Lerner’s ASL poem *Need* (a poem about mankind’s exploitation of nature, accessible at [http://www.youtube.com/watch?v=Ugvjfkj_Nb4](http://www.youtube.com/watch?v=Ugvjfkj_Nb4)) a man gets out of his car, cuts down a tree, and chops it up. In conversational ASL, once the tree begins to fall, the signer would quickly replace the sign TREE with the appropriate classifier. In this poem, however, Peter Cook lets the sign TREE fall and only once it begins to be chopped up is it replaced with the classifier. The sign TREE, as we noted earlier, has all five fingers spread, showing the spreading branches of a tree, where the five fingers show multiplicity of branches rather than exact number here. The
appropriate classifier, instead, has all five fingers close together, so that the entire forearm, including the hand, is a single plank, so to speak. In this poem we see the tree maintaining its many limbs as it falls, heightening the drama of the action. Only once the tree is on the ground and dead does it lose its recognisability as a tree by being replaced by the limbless classifier. Here the poet exploits the difference in visual information packed into the sign versus less information in the classifier. In regular conversation, the classifier for tree certainly has no sense of being limbless, but once the poet makes the closing of the fingers (from a 5-handshape to a flat-B-handshape) coincide with the felling of the tree, we look at the classifier as giving us information about the limbs (i.e. that they are now gone or as good as gone, since the tree will become lumber).

3.1.2 Analogy to size of referent

Although whole entity classifiers do not usually allow signers to show size of a referent, they can occasionally do so, especially with respect to perspective and the relative distance of a referent. In reference to a form of signing sometimes called the Visual Vernacular, in which cinematic terms are appropriated to describe methods of representing referents visually (Bauman, 2003; Kinoshita, 2005), we may see these as equivalent to distance, medium, or close up shots. A person shown by a distance shot may be represented by the index finger of an entity classifier through a transfer of situation (Cuxac & Sallandre, 2008); the same person in a medium (middle distance) shot may be represented with an entity classifier in which the fist represents the head and the forearm represents the body (Eastman, 1989); a close-up shot of the person
would use embodiment as the signer uses their own body to map the character’s body in a transfer of person (or role shift).

It is also possible, however, to use whole entity classifiers to show increasing or decreasing size created by perspective relative to changing distance. This may be done by making the hand appear bigger or smaller via varying the number of fingers extended in the classifier handshape. We see this in Clayton Valli’s ASL poem *The Bridge*, as performed by Abraham Reda (accessible at http://aslpoetry.blogspot.com/ and found in Valli, 1995). As a boat passes under a bridge and moves on, the bridge is first represented with the H-handshape classifier (the index and middle finger extending from a fist), but then, as it gets farther away, the bridge is represented with the 1-handshape classifier, to show that it appears thinner and smaller from a distance.

David Ellington also shows this change in size in his BSL poem *The Story of the Flag*, in which a band of horsemen ride toward a castle on a hilltop, where a flag is flying. The conventional classifier representing a flag uses the flat-B-handshape held with the fingers pointing sideways in order to better represent the dimensions of a flag when it flies from the flagpole. In David Ellington’s poem, the flag is first shown far away with a single finger. As the horsemen approach the castle, the flag is shown with two fingers, then three and finally all four as the conventional classifier would show it, indicating the steadily increasing size of the flag, as seen in Figure 3.

<Figure 3 goes around here.>

A variant on that trope is found in Peter Cook and Kenny Lerner’s ASL poem *Poetry* (in Nathan Lerner & Feigel 2009). Here a leaf falls from a tree. The 1-handshape classifier winds through the air, but as it gets closer to the water below, it changes to a flat-B-handshape classifier (with all fingers straight and close together) and
it is mirrored by the non-dominant hand, which represents its reflection in the water. As the leaf is carried off by the water, the classifier becomes a 5-handshape (spreading the fingers). Here image size is once more the issue, but with respect to perspective, rather than distance. We view the leaf falling from the side, so we see only the thin edge. But once the leaf has fallen, we view it from above. Finally, once the water has soaked the leaf, any curl it had smoothes out, so that it becomes entirely flat, and stretches to its full breadth. Playing with the classifier, then, reminds us of the changing appearance of the leaf to the viewer.

3.1.3 Analogy to number and location of referent

In conversational signing, signers do not mix the ‘shot-distance’ of classifiers within an image shown in one simultaneous sign. For example, two people in a given frame or scene will be shown using either distance-shot classifiers or two medium-distance classifiers; it would normally be inappropriate for one person to be shown with a distance shot and the other to be shown at the same time with the medium shot. However, signed poems go against conventions of retaining the correct representation of size reflected by classifiers within a scene.

Combinations of transfer are not uncommon, especially in creative sign language, where a transfer of situation and transfer of person showing the character role are represented simultaneously in various ways: For example, the classifier may show Person A moving, while the rest of the body shows Person A in character role; the classifier may show Person A moving, while the rest of the body shows Person B in character role observing Person A moving; one hand represents Person A’s hand tapping the shoulder of Person B, while the rest of the signer’s body and face, including
the shoulder simultaneously represents Person B (Dudis 2004). However, in *The Story of the Flag* and in Paul Scott’s poem *Five Senses*, the full-sized human characters, shown through transfer of person, interact with and operate within the same visual frame as referents shown by transfer of situation, despite the differences in scale and the simultaneous combination of distance shot and close-up shot.

In *The Story of the Flag*, the poem mixes the relative scale of the different transfers, as the poet uses his head and body to embody the leader of the horsemen within a frame that includes the representation of the ten horsemen indicated on each of the ten fingers and thumbs. Thus eleven people (or perhaps more) are represented in a line and the audience can see close-up information of the lead horseman and a distance shot of the rest of the band, as seen in Figure 4.

<Figure 4 goes around here.>

In *Five Senses*, a human learns from the five different senses what they are when they are part of a Deaf person. The poet (shown by person transfer) converses with - and even touches - the senses, which are shown by situation transfer, creating an aesthetic and highly visual clash of scale. In Figure 5 we see him pointing to the personified sense of smell (we will discuss this personification later) as a form of address asking ‘What are you?’ (in the first frame) and saying ‘That’s good, thank you’ to it afterwards (in the second frame). The third frame of Figure 5 shows the full sized human now touching one finger, which references the sense of hearing, while asking the little finger (representing sight) what is the matter with its neighbour (the one he’s touching). In all these examples, then, we can see novel uses of blended spaces (in the sense of Fauconnier & Turner 1994) within the single frame. That is, the mental/conceptual location of the senses is mapped onto the actual physical location of each of the fingers.
and the signer’s ‘self’ is mapped onto his own body minus his non-dominant manual articulator. These locations/ spaces are blended via the poem’s narrative, so that we understand the poet as not talking to his fingers, but as having a conversation with the senses. (We return to other matters of blended space regarding this poem in Section 3.2.1.)

A similar situation occurs in Peter Cook and Kenny Lerner’s Poetry. Here a butterfly flits around and lands on a man’s head. The sign BUTTERFLY in ASL (and also in BSL) consists of two 5-handshapes, linked by crossed thumbs, with the palms facing the signer. As the butterfly moves toward the man, the poet uses only one hand, which lands on the side of the man’s head – far larger than a regular butterfly. The four fingers represent one wing and the thumb in this instance takes on the role of the other hand as it represents the butterfly’s other wing.
3.1.4 Analogy to behaviour of referent: use of joints

Further analogies to the referents beyond their number may be seen in the way the joints of the fingers and thumbs are used to parallel the areas of the body. Anatomically it is not possible for most people to bend their fingers only at the most distalised joint, so it is difficult to use that joint to represent the neck, however, flexing the base and middle joints simultaneously allows a representation of either bending at the waist or nodding the head. It is not uncommon, even in conventional non-poetic sign language, for the curved index finger to represent an older person or anyone hunched over. However, this is normally seen for a single person (via an X- or curved-1-handshape) or perhaps two people (via a bent-V-handshape).

In *The Story of the Flag*, David Ellington shows that the other horsemen nod in agreement with the leader by flexing first five fingers (as seen in Figure 6) and then all ten fingers (in the arrangement seen earlier in Figure 4). This is a highly visual and witty extension of this entity classifier, taking it to the extreme limits of what is possible in the plurality of classifiers.

<Figure 6 goes around here.>

Ellington also flexes all ten fingers as part of a different and even more creative analogy with the referent when he describes the horsemen coming to a sudden halt after their charge. As the horses gallop along the winding path, he uses a conventional plurality classifier to indicate many animals/people moving. In this sign, the hands are held so that the palms face down and the fingers face forwards. In the context of this poem, the tips of the fingers represent the horses’ heads as they move forward, although this orientation of the two 5-handshape hands is also used to show many people moving forward. When the horses stop suddenly, the fingers on both hands flex at the base and
interphalangeal joints, showing the horses – and perhaps their riders – dropping their heads at their rapid halt. This distance shot image of the heads snapping down and back up is reinforced with middle-shot whole entity classifiers of the fists representing the heads, which flex at the wrist to reflect the nodding movement, seen in Figure 7. As there are only two fists available to represent 10 horses (or riders), Ellington repeats the flexing wrist of the fists and moves the hands outwards each time, showing them in a line. Throughout the distance-shot and medium-shot representations we also see the close-up through the transfer of person in which Ellington’s body and head show the leading horseman.

In Peter Cook and Kenny Lerner’s *Poetry*, as the butterfly moves toward the man, the poet avails himself of the flexing ability of the base joint of the fingers to show this classifier moving through the air, as though flapping wings. Usually we would expect this flapping to be shown at the point of contact between the two hands. By shifting from the two-handed sign to the one-handed novel classifier, the poet allows ease of landing on the head (two hands landing on the head would be awkward, and go counter to the grace of the scene) as well as continuous sight of the signer’s face.

Another example of a more abstract nature from the same poem concerns the blazing sun. The ASL lexical sign *sunshine* involves a handshape change from the closed fist (the S-handshape) to bent-5. But in this poem the poet uses the bent-5-handshape with interphalangeal flexing, so it is what’s known as the claw-handshape, but with internal motion. The claw-handshape is often used as a classifier for a multiplicity of objects, such as a bunch of freckles or a crowd of people. Here the classifier evokes the image of the sun’s multiple rays. Ordinary uses of the claw-
handshape classifier do not involve interphalangeal joint flexing. So the flexing here
gives the sense that those rays are streaming down on the poet, like flickering flames.

3.2 Non-physiological analogies

We here look at classifiers whose properties are not due to physiologically-based
mappings from referent to handshape form or movement; in other words, they are
metaphors that map abstract ideas onto the concrete form.

3.2.1 Abstract entities

Classifier handshapes can reflect aspects of the referent as a result of metaphorical
mapping of forms, even when the referent is an abstraction with no physical form at all.
When Paul Scott converses with the senses in his poem Five Senses, each sense is
represented using one of the fingers, as though it were a human whole entity classifier.
The structure of the poem, working through the senses one by one, requires each sense
to be represented by a different finger (the thumb for touch, the index finger for taste,
the middle finger for smell, the ring finger for the bewildered sense of hearing in a deaf
person, and the little finger for sight). Each finger that represents each personified and
anthropomorphised sense shows its physical form through the use of a metaphor that
maps the abstract senses onto a conventional signed representation of the human form.
That is, each finger provides a classifier for each sense. At this stage in the poem, the
poetic novelty in the classifiers is seen in the poet’s decision to allocate the senses a
human form at all (rather than, say, animal form or some other kind of physical form).
Straightening the relevant finger represents an analogy with the designated sense
awakening and standing upright (as we might expect to see with a human standing up)
so that it can converse and explain what it is. When the sense stops conversing, it curls up again, as seen by the finger closing back into the fist. The ring finger provides an apt analogy to the sense of hearing for the deaf poet by being unable to remain upright in isolation. Symbolically this has additional meaning because no classifier sign in BSL would ever use only the ring finger extended. In fact, no signs at all in BSL (or ASL) use this finger extended alone.

Additionally, the thumb, which represents the sense of touch, flexes when it says goodbye. Here the thumb represents the sense’s hand, not the whole sense, as it waves goodbye. A BSL sign \textit{BYE-BYE} flexes all the fingers together at the base knuckles, and flexing at the thumb’s base and phalangeal joints represents this simultaneous flexing of the fingers. Later, however, when the two senses of sight and hearing nod to confirm to the poet that they are together, the ring finger and little finger flex simultaneously. As with the nodding horsemen in David Ellington’s poem, these two nodding senses have to flex at the two most distal joints for anatomical reasons (with a negligible involuntary flex at the base joint), but they clearly represent nodding, rather than bowing.

The final sign in this poem uses an entity classifier to represent the distance of the relationship between two referents. Normally, the distance between fingers in the upright 4- or 5-handshape entity classifiers is not considered to be informative about the distance between their referents. It is not uncommon to manipulate the digits in this way if they are simply acting as numerals in listing or counting buoys (Liddell 2003), for example to highlight two concepts or qualities that are more closely associated than other ideas in a list. However, in classifier handshapes the fingers remain separate because the referents are simply arranged in some sort of line (as seen, for example in \textit{The Story of the Flag}). To show the distance between two people through classifiers, a
signer would normally manipulate the distance between the index fingers of both hands. However, in the closing sign of *Five Senses*, upon which the whole poem comes together, the ring and pinky fingers are held together while the other three digits are held apart, as shown in Figure 8. Audiences interpret this sign in this context as meaning that the two senses of hearing and sight stand closely together.

Other abstract concepts in Paul Scott’s poem *No Mask like Home* are also represented by classifiers that map onto a physical object: Shame, Embarrassment and (bad) Attitude. As emotions that can metaphorically seem to prevent us from seeing clearly and revealing ourselves honestly to others, the three abstract concepts are represented as masks, using classifiers that are large enough to cover the whole face. They are also given agency and movement as entity classifiers, so that, like the wings of an attacking sea-bird, the pages of a difficult book, or the swinging doors of the impersonal office building, the three concepts fly onto the face and wrap themselves around it. In these three classifier handshapes the fingertips grip the edges of the face, thus implying some sort of tenaciousness, giving further support to the ascription of agency in the abstract states. Figure 9 shows this. The handshape from the sign *SHAME* in the first frame of Figure 9 helps motivate what we see in the second frame of Figure 9, where, via a situation transfer, we have a metaphor of the wings of the seabird that have an agency to cover the poet’s face. The poet is able to look at this classifier almost as though it represents the pages of a book (again, assigning a concrete visible form to the abstract idea of shame), to see the word *shame* written there, as in the last frame of Figure 9.
A particularly fanciful use of classifiers as metaphors is found in *Poetry*. In this poem, Kenny Lerner stands behind Peter Cook and stretches out his arms, so that four manual articulators are visible. When they sign *LANGUAGE*, the playing begins. This sign consists of both hands in the L-handshape, meeting in neutral space, thumb to thumb, palms facing outward, and then the hands separate, moving horizontally to the sides, wiggling (accomplished by repeated, brief radioulnar rotation). But soon the sign becomes simply L-handshapes moving apart – four of them at once – moving on the horizontal, the diagonal, the vertical. By this time, we can see the handshapes have become classifiers. The L-classifier normally is used to indicate rectangular objects, such as picture frames or checks or, importantly, tickets and certificates. Language is the ticket that allows people to move through life communicating all their emotions and thoughts. Language is the certificate of joy.

3.2.2 Novel handshapes

Poets use novel classifiers to develop extended analogies within their work. When they present more than one sign with the same novel classifier handshape, or patterns of changing novel handshapes, their audiences are obliged to seek or create new categories that somehow link them. There are many examples of this, and indeed we have already seen this in *Five Senses* and *No Mask Like Home*.

Scott’s poem *Roz: Teach a Dog a New Trick* helps underscore the importance of novel handshapes in creating metaphor as it uses several novel – and conventionally inappropriate – handshapes to show the shape of a ball, seen in Figure 10. Each of these oddly-shaped balls is thrown for the dog, who chases after them but can never catch them because he is restrained by his short leash. Finally, the human throws the ball,
now represented by the conventional classifier handshape, and the dog snaps the leash and never comes back—so we assume he has caught it. The poem is an extended metaphor about failed language teaching tools in deaf education. The three unsuccessful tools referred to are oralism, cued speech, and Paget Gorman Signed speech, and the BSL signs for these use the bent-V-handshape, the 4-handshape and the 1-L-handshape, respectively. These three handshapes are used to show the shape of the odd balls as the human protagonist plays with the balls. The poem implies that it is no wonder that the dog cannot catch such odd balls. The fourth ball, that the dog does catch, is signed using the conventional (i.e. correct) handshape for the perfectly round ball. This is the same handshape used in the BSL sign USE-SIGN-LANGUAGE. Thus the correct ball has the correct shape because it has the handshape of the correct language tool for deaf education.

<Figure 10 goes around here.>

4 Conclusion

We have shown here the great potential for sign language poetry to manipulate whole entity classifiers so that the handshapes break out of set categories to refer to the physical properties of referents in a highly visual way that facilitates analogies. Further, this highly visual approach allows poets to ascribe properties even to referents that do not, in fact, have them. While they are not able to map every aspect of the referent’s shape and internal or path movement, poets select novel forms to allow new ways of seeing. The handshapes are easily interpreted within their context by audiences. There is nothing ‘impossible’ about them; they simply have not been exploited in conversation with that sense or form before.
We have seen that classifiers can indicate objects that have more than one part, as in Paul Scott’s Tree, where a single classifier represents a blind man with a cane. Here we have a cane-man, so to speak – a morphologically complex classifier that, exceptionally, shows two independently-moving entities on the same hand.

Creating lexical items via putting together classifiers is productive in BSL and ASL. The sign MEET in both languages consists of two classifiers for humans moving toward each other until they touch (Frishberg, 1975). Signs like READ, FALL, JUMP, and many others are open to an analysis as compounds of classifiers (see discussion in Brennan, 1990, and in Meir, 2001). So, it is clear that sign languages regularly use classifiers in forming new items in the frozen lexicon.

The novelty in Paul Scott’s creation of the classifier for the blind man with the cane is different, however. The two parts – man and cane – can act separately. That is, the cane taps the ground repeatedly as the man moves forward. This movement of only part of the classifier – and, in particular, a part that represents a separate whole entity – is startlingly new. Scott has exploited the fact that sign languages have both primary (path) movement and secondary (hand-internal) movement – separating the two, so that he can use one (primary) for the movement of the man and the other (secondary) for the movement of the cane. The wit and creativity behind the sign is remarkable.

The “cane” morpheme, however, does not exist independently of the “person” morpheme. It arises as a morpheme only via its association with the person. The pertinent visual factor licensing this novel classifier is the fact that we can see the silhouette of both referents in the single handshape, so they become a linguistic unit. In fact, they become a phonological unit: a K-handshape, where the middle finger undergoes secondary movement of flexing at the base joint. We doubt one could create
a morphologically complex classifier for a set of referents that didn’t succumb to such a silhouette. Here completely visual factors are what allow integration into a whole.

Again, we might expect to find complex classifiers in some sign languages which are also constrained by and/or licensed by visual factors (such as the overall form/shape the hand and perhaps forearm make), rather than articulatory ones (such as matters of location, movement, orientation of palms). Further, there are signs that have both primary and secondary movement that reflect both path and internal movement of an entity, such as fire in ASL. One might think of the wiggling fingers as representing the licking of the tips of the flames, whereas the rising arms represent the upward movement of the entire flames. In this example, however, the licking of the flame tips is not independent of the motion of the whole flame. In the example of the blind man with his cane, the primary movement represents the movement of one object while the secondary movement represents the movement of another object, and the tapping of the cane is independent of the walking of the man (even when he stops walking, the cane still taps). Thus, the poet has shown us a way of pushing word-formation processes to an extreme not found in the frozen lexicon or even in the conversational productive lexicon; he has expanded our knowledge of what’s possible in language.

Examination of novel classifiers shown by the poets’ art, then, reveals new evidence about the sorts of grammatical behaviours that sign languages might exhibit—behaviors that have not yet become apparent from looking at data on conversations in sign languages.

We further contend that the metaphors that these poets employ also reveal new information about cognition. When a poet uses a novel metaphor, by considering that metaphor we can recognize capabilities of our thinking that we might not have noticed
before. For example, in Paul Scott’s *Roz: Teach a Dog a New Trick* the handshapes represent something that is naturally ill-formed both from the perspective of the sign language convention and the real physical analogue to the ball (a ball cannot behave like a ball with those extra protrusions in the handshapes of the first three cases). The presentation of the major idea of the poem – that deaf education needs sign language to operate fully – via the extremely visually effective use of the novel handshapes in classifiers calls for thinking about perceptions in a new way. Scott’s poem shows us that we can think in this flamboyantly new way.

In sum, playing with language through the use of these highly visual classifier signs, as they break out of existing categories and create new analogies and metaphors, has serious implications. We have seen here that some handshapes used as classifiers are outside the conventions of the language that has thus far been observed and, therefore, add to our knowledge about the range of possible techniques of expression that a sign language can manifest or make use of. Poetry, in particular, employs various kinds of iconic strategies (or richly grounding symbols, as in Macken, Perry, and Haas 1993), which do not easily lend themselves to a traditional morpho-syntactic analysis, calling, instead, for an analysis based on visual principles (such as the ability to form a silhouette).

We have further seen that some handshapes are pushed to represent different aspects of a referent from what would conventionally be expected, and, therefore, by drawing on novel metaphors, show us capabilities of thought that we might not have recognized in other language events. The very purpose of a classifier system in sign languages is to permit signers to create new signs by creating analogies to the shape and behaviour of referents. In that sense, all the classifier uses in these poems reveal the
possibilities open to signers in conversation, as well – so the metaphors created might well play a role both in language change (as new classifiers become conventional) and in thought change.

Notes
1. We recently saw this same handshape in ordinary conversation used to refer to a rugby scrum. In a similar way, the bent, forward-facing fingers represent the bent heads and waists of the rugby players. A rugby scrum may have up to eight players on either side; the sign cannot depict more than five at the most, but it is still highly analogous to the visual image of the scrum.

References


Figure 1. The dog in Paul Scott’s Tree, walking and cocking its leg
Figure 2. The blind man walking with his cane in Paul Scott’s *Tree*
Figure 3. Increasing number of fingers showing the closer – and larger - flag in David Ellington’s *The Story of the Flag*
Figure 4. Lead horseman (shown on head and body) in a line with other horsemen

(shown by individual fingers)
Figure 5. Fully-scaled referent shown through person transfer (close-up shot) interacting with referents shown through situation transfer (distance shot)
Figure 6. Lead horsemen nods (person transfer nods the head to shows nodding) and some of his band nod (situation transfer bends the fingers to show nodding) in agreement.
Figure 7. First frame, fingers bent and head bent to show bent heads of all the horsemen using distance and close-up shots

Second frame, fists and head bent showing medium distance and close-up shots
Figure 8. Fingers close together in ‘illegal’ handshape symbolising the close relationship of the senses of hearing and sight in the Deaf person.
Figure 9. The sign SHAME, transferred metaphorically to give shame a concrete visual form as bird wings, covering the face, then as something that can be looked at
Figure 10. Playing with a ball, first three frames using handshapes inappropriate for a ball (clawed V, IL and 4), final frame using correct handshape for handling a ball
Appendix: Handshape conventions

Below are the handshapes mentioned in this paper. For ease of viewing, they are shown with palm oriented toward the viewer and finger oriented up. The letters of the manual alphabet in any given sign language might differ from these in orientation as well as in shape.

![flat-B](image1)
![F](image2)
![H](image3)

![Bent-V](image4)
![X (= curved 1)](image5)