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JENNIFER GREEN

Mothers, Mountain Devils, and Pointing to Eternity: The “Horns” Handshape in Australian Indigenous Sign Languages

Abstract

Australian Indigenous sign languages are predominantly used by hearing people as a replacement for speech in certain cultural contexts. In some circumstances sign is used alongside speech, and in others it may replace speech altogether. This article provides a window on some of the articulatory dimensions of these sign languages by examining the distribution of the “horns” handshape in repertoires of sign from a range of communities in Central and Northern Australia. The horns handshape is notable as it is one of the more common handshapes found, at least in some of the sign languages used in Australian Indigenous communities. This contrasts with the apparent infrequency of this handshape in some other sign languages of the world. By implementing a methodology that takes the interconnections between sign and speech into account, the article explores loose networks of semantic association in signs that employ this handshape and assesses evidence of semantic motivation for its use in sets of related signs.

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IN THE RICH and diverse communicative ecologies of Indigenous Australia, sign plays an important role, with sign used as an alternative to speech when speech is either impractical or inappropriate.¹ The sociolinguistic circumstances that give rise to Australian Indigenous sign languages may be contrasted with deaf community sign languages, including large-scale ones associated with nation-states (for example American Sign Language [ASL], British Sign Language [BSL], Australian Sign Language [Auslan]), and sign languages used in small rural and village communities (for example Kata Kolok in Bali and Adamarobe Sign Language in Ghana). In most circumstances Australian Indigenous sign languages are a culturally driven option used by hearing people. As such they are often described as “alternate” sign languages (Kendon 2013[1988]; and see chapters 34–38 in Jepsen et al. 2015). It is senior people, and in particular women, who are the acknowledged experts, especially in some communities in Central Australia. That said, younger people sign as well, and new signs emerge that reflect sociocultural and environmental changes.

The time-depth of Australia’s original sign languages is difficult to determine. Records of sign are found in the archival records of missionaries, ethnographers, and others made over 180 years ago. But they, of course, only give a tantalizing glimpse of what signing practices may have been like prior to colonization. One intriguing hypothesis is that the stenciled handshapes found in the ancient rock art of the Carnarvon Gorge in Central Queensland are visible evidence of the use of distinctive handshapes for signing or signaling (Walsh 1979; 1999, 37, 38; Kendon 2013[1988], 42; Etxepare and Irurtzun 2021).

As is the case with other more well-known sign languages of the world, Australian Indigenous sign languages are characterized by conventionalized form-meaning pairings, realized by contrasts along several main parameters: *handshape*, *location*, *movement*, and *orientation*.² Although there are as yet few fine-grained comparative analyses of the phonology of these Australian Indigenous sign languages, there have been some attempts to come to grips with variation in their inventories of handshapes and other dimensions of sign action (Kendon 2013[1988]; Adone and Maypilama 2014; Bauer 2014; Ellis et al. 2019; Jorgensen 2020; Jorgensen et al. 2021). As is the case with other sign languages, the handshape parameter has attracted the most

analytic attention, perhaps, as Occhino suggests, because handshapes are easier to isolate and evaluate (Occhino 2017, 75).

When it comes to Australian Indigenous sign languages one puzzle, and the focus of this article, is the distribution of the “horns” handshape. Across the world this distinctive handshape, often used as an emblematic gesture, attracts many interpretations. Some of these have connotations of danger, sorcery, and power that are linked to symbolic conventions that stretch back for millennia. The horns handshape appears in representations of deities in the tradition of Tibetan Buddhism. In Italy and in some other Mediterranean cultures it was deployed to ward off bad luck, and in some cultures its use is explicitly offensive and can imply sexual infidelity. Since the late 1960s the action has been used in musical performative traditions such as heavy metal and rock. It appears as a sign of fan solidarity for sports teams, in particular the Hook ‘em Horns signal associated with the University of Texas at Austin Longhorns football team. In Kenyan Sign Language (KSL) the sign *UGANDA* uses the horns handshape, which references the deadly years during which Idi Amin was president of Uganda (the sign is based on the signs *KILL* and *DIE*; Morgan 2017, 16). Lastly, in South African repertoires of quotable gestures, a commonly occurring action formed with the first and fourth fingers extended is glossed as “clever” or “streetwise” (Brookes 2004, 208).

While the horns handshape appears to occur infrequently in sign languages such as Auslan and ASL, in some Australian Indigenous sign languages it is relatively common. Its incidence appears to be concentrated in Central Australia (see figure 1), and in these signing communities the handshape is found in a range of signs. It is employed in some signs for animals and birds—*CROW*, *STONE CURLEW*, and *MOUNTAIN DEVIL LIZARD*; in signs for celestial phenomena—*SKY*, *AIRPLANE*, *CLOUDS*, *FLY*, and *MIRAGE*; in signs concerned with movement through space, most commonly the sign *GO* (Kendon 2013[1988], 171); and in some signs in the kinship domain. For example, in several languages from this region signs for *MOTHER* use the horns handshape. The variable distribution of the horns handshape in Indigenous Australia gives rise to some questions: Why should this handshape be more common in Central Australia than in the west or north of the Australian continent? Is it simply because the

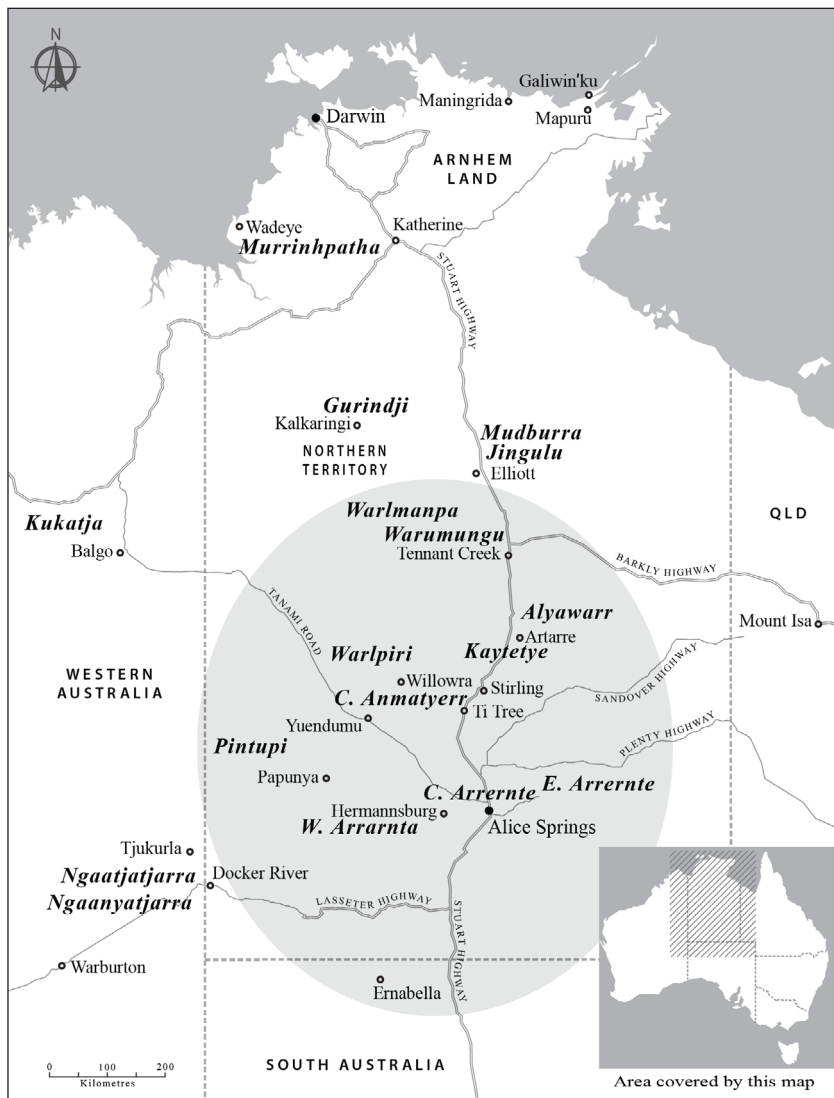


FIGURE 1. Map showing main communities and spoken languages (in italics) discussed in this article. The circular shaded area corresponds roughly to the area known as “Central Australia.” (Map: J. Green)

documented lexicon of sign in these places is more extensive, or are there other factors at play?

The second issue explored in this article is whether there is evidence of semantic motivation for the use of this handshape in sets of related signs. Increasing attention is being paid to iconicity as a fundamental property of human language, regardless of modality (Perniss and Vigliocco 2014; Napoli 2017; Occhino 2017; Perlman et al. 2018; Dingemanse, Perlman, and Perniss 2020). Sign languages make abundant use of nonarbitrary, iconic, form-meaning mappings that are particularly afforded by the visual-spatial medium (Perniss, Thompson, and Vigliocco 2010, 2). Researchers are beginning to unpack the complexities of these processes using a variety of experimental methods, but one line of investigation seeks to understand the ways that the different affordances of signed versus spoken languages correlate with various types of iconic mapping seen in different semantic domains. For example, Perlman et al. (2018, 4) suggest that sign languages are high in iconicity where signs relate to bodily actions, whereas spoken languages exhibit high iconicity ratings in words that refer to sounds. In his analysis of Australian Indigenous sign languages from Central Australia, Kendon shows that when it comes to the relationship between a sign's form and its referent "there are considerable differences from one semantic domain to the next in what representation devices are used" (Kendon 2013[1988], 182, 183). Such modes of representation are often multifaceted and cannot be sharply distinguished, as "signs rarely exemplify only one mode" (Kendon 2013[1988], 166; see also Wilkins 1997, 433). Iconicity may simultaneously be apparent in any of the parameters: handshape, location, movement, or orientation (see also Perniss, Thompson, and Vigliocco 2010, 4). Furthermore, multiple iconic mappings between form and meaning are possible for a single sign feature, such as handshape (Occhino et al. 2017, 108).

In this article, I look at the distribution of the horns handshape in Australian Indigenous sign languages, discuss some of the parameters of sign articulation in signs employing this handshape, and examine some of the "semantic clusters" that the handshape is found in. Rather than a random distribution, I will show how incidences of the horns handshape coalesce around several semantic domains, even as the

motivation for some of these implicit relationships remains opaque (cf. Occhino 2017). This analysis provides a window on sub-lexical structures of these Indigenous sign languages, but also highlights some dimensions of their relationships to the spoken languages of the communities where they are found. The theoretical approach taken in this article is implicitly multimodal—it takes as a basic assumption the fact that the majority of the users of these alternate sign languages are hearing, and that speech, sign, and other forms of visible bodily action (e.g., gesture) are part of their communicative ecologies.

Background to Australian Indigenous Sign Languages

Australian Indigenous sign languages are not generally the main mode of communication of a community, or of particular individuals, but rather used alongside other semiotic systems, including speech, gesture, and drawing practices (Green 2014). Their functions vary between Indigenous communities in Australia, and in everyday conversation sign is used for particular cultural and pragmatic reasons. Signing occurs in certain types of gender-restricted ceremonies and in other ritual situations where speaking is inappropriate or disallowed. Sign is used to ensure silence when hunting (as speaking would scare off prey); to communicate in noisy environments when speech would not be heard; and for communication between interlocutors who are visible to each other yet out of earshot. Sign also provides a means of conducting discreet and private side-conversations when using speech is not desired or could be regarded as impolite. A switch to sign may signal the circumspection required of certain topics and sign is one of the resources drawn upon to mark respect (Green 2019). Sign is used by Indigenous deaf people, although the contributions that traditional sign, homesign, and Auslan have to the signing practices of the deaf in different communicative ecologies of Australia awaits further research. In some communities, sign was the main form of communication in the context of bereavement, when certain kin used sign instead of speech during extended periods of “sorry business.” For example, widows observed speech bans and signed instead during periods of mourning (traditionally up to a full year). Indigenous sign languages appear to have been the most developed in regions, such as Central Australia and Western Cape York, where speech taboos extended through such periods of mourning (Kendon 2013[1988]).

While everyday use of a limited set of signs is commonplace, detailed knowledge of the extended repertoires of these sign languages is highly endangered. This is partly due to age and gender-related aspects of sign use, and to the ways that sign is associated with cultural practices that are changing rapidly.³

Early Records of the Horns Handshape

Before the advent of video and film technologies, anthropologists and ethnographers documented sign in their encounters with Australian Indigenous peoples and kept records of what they saw in their notebooks by making sketches and writing down descriptions of signs. Walter Edmund Roth (1897), a physician, anthropologist and at times government official, described 213 signs and made 168 detailed line drawings of the signs he observed among different Indigenous groups in Queensland. He aptly called these “ideagrams,” and illustrated two signs that used the horns handshape. He glossed sign #204 as “sickness, moribund, a corpse” and sign #211 as “bad (person or thing)” (figure 2). He noted beliefs associating ill health with transgressions

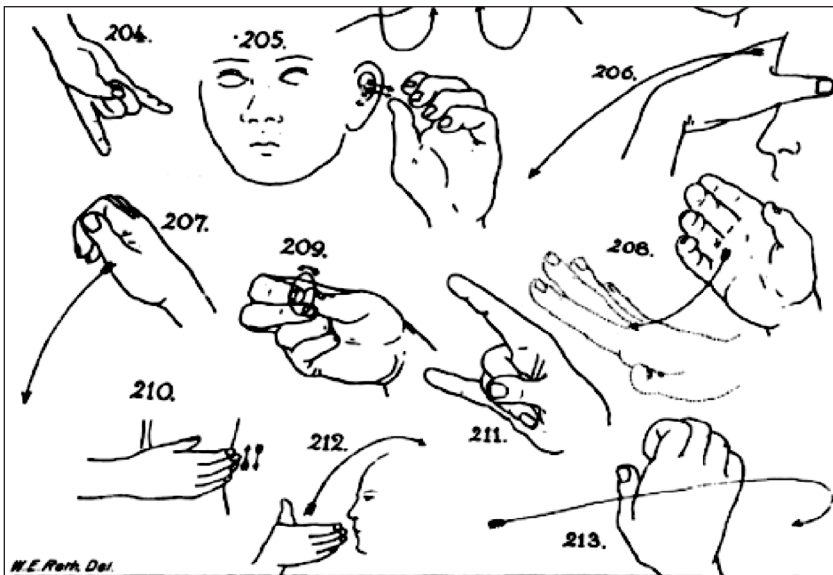


FIGURE 2. Sign language of North-West Queensland, recorded by Roth. (Detail from Plate X) Simple Acts, States and Conditions, Complex Conditions, Abstract Ideas Etc. (Roth, 1897).

of cultural practices and surmised that the form of sign #204 is based on “the idea of a dead person with the legs stiffened out” (Roth 1897, 90).

The Lutheran Missionary Carl Strehlow documented the languages spoken at Hermannsburg, to the west of Alice Springs (see figure 1). In the manuscript, *Die Aranda- und Loritja-Stämme in Zentral-Australien*, published in seven volumes between 1907 and 1920, there are 454 sign entries. Depending on the ways the count is conducted and how polysemous signs and sign compounds are treated, there are between 261–290 distinct sign forms corresponding to over 450 spoken Arrarnta words (Kendon 2013[1988], 49, 388; Wilkins 1997, 419). Strehlow wrote that the sign language, *kwerinja*, represented “an absolutely astonishing development among the Australian natives” and that it “possesses signs for every activity of normal life” (Strehlow 1915). Strehlow noted four signs that, from his written descriptions, appear to use variations of the horns handshape. These signs included #261 *alkngarinja* “mythical woman,” #325 *kunna* “bad,” #384 *kuta* “always,” and #412 *lama* “to go.” Two other ethnographic records make reference to the horns handshape in the Central Australian region. Spencer and Gillen (1927, 608) describe a sign glossed as “muddy water, no good” where “the first and fourth fingers are extended; the second and third bent over the palm; the thumb is placed on the second finger.” Basedow noted three signs that use the horns handshape: “Hear him!,” “It is no good,” and “The Evil Spirit” (Basedow 1925, 391–393).

In the limited publications on the stenciled handshapes found in Australian rock art sites, mentioned above, a horns handshape is clearly evident (Walsh 1979; 1999, 37, 38) although there is no interpretative material available beyond Walsh’s speculations based on analogies with Roth’s drawings of signs.

The Data

The data considered in this article comes from a range of sources. These include early records, discussed above, of sign from the late nineteenth and early twentieth centuries—not filmed, but for which written descriptions and line illustrations are sometimes available. Kendon’s (1986–1997) detailed records of sign languages in the

North Central Desert (NCD) provide much comparative material, as do more recent sign recordings made during collaborative projects between Indigenous sign language experts and linguists, supported by Batchelor Institute, and by several Australian Research Council (ARC) grants for research on verbal arts and sign languages across Central and Northern Australia (see <https://iltyemiltyem.com/>). Many of the illustrated examples in this article are from Anmatyerr signers who have participated in these recent sign documentation projects. For convenience I use the spoken language of a community as a pivot for discussions about signing practices in these speech communities. Hence we have “Warlpiri sign,” “Anmatyerr sign,” “Western Arrarnta sign,” and so on, even though the differences between signing practices across different spoken language groups may be minimal. The metrics for determining the number of distinct Australian Indigenous sign languages are yet to be fully determined. The term “Arandic” is generally used to refer to a group of closely related spoken languages that include Arrernte/Arrarnta, Anmatyerr, Kaytetye, and Alyawarr.

Handshape Variation—“Corna” or ILY?

There are several variations of the “horns” handshape. The “corna” handshape has the index finger and “pinky” (little finger) extended to resemble, so it is said, parallel horns. The other fingers are closed to the palm, and the thumb is tucked over the closed fingers (see examples #204 and #211 in figure 2). In ASL the “ILY” “I love you” handshape (so named because it is an assimilation of the ASL fingerspelling letters “I,” “L,” and “Y”) the index finger and little finger are extended and slightly spread, the other fingers are closed to the palm, and the thumb is extended.⁴ This handshape is found, for example, in the ASL signs TENT, CAMPING, MOCK, and AIRPLANE (Ortega 2017, 4).

While the difference between these two handshapes (see figure 3) is important in some sign languages, it seems that in Australian Indigenous sign there is noncontrastive variation between the two variants. In Kendon’s annotations of NCD sign, based on video recordings made between the late 1970s to the mid-1980s, a distinction between the horns hand, with or without extension of the thumb, is

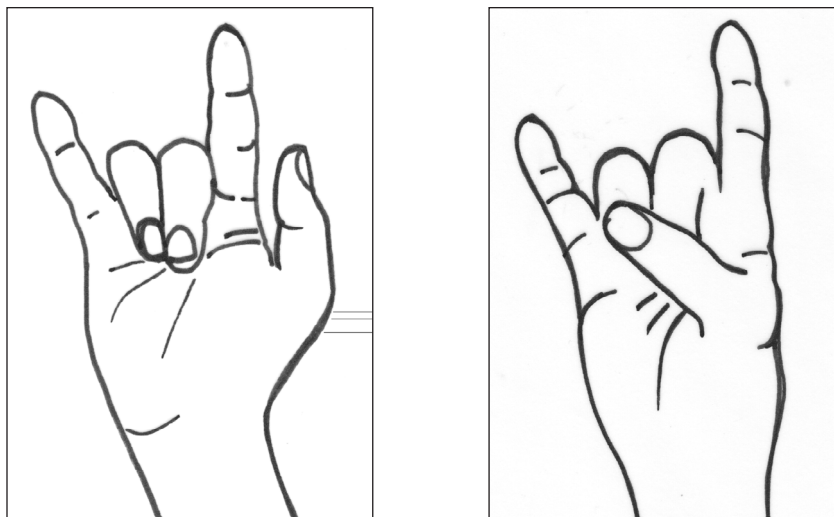


FIGURE 3. Two variations on the “horns” handshape.

not made (Kendon 2013[1988], 125, 131, 468).⁵ An analysis of recent recordings of Anmatyerr and Warlpiri sign (including signs that Kendon had previously recorded in Anmatyerr, as well as some new signs) shows that, in a majority of sign tokens where a horns-like handshape is found, the thumb is extended.⁶ In some instances the articulation is extremely relaxed, perhaps a general feature of the system and a consequence of a tendency toward articulatory economy, or at least in some of the commonly used handshapes. In one recording where an Anmatyerr signer was stressing the salient articulatory features of these signs to the linguists working on the sign documentation project, she pointed to her index finger and pinky, and emphasized their extension. That was what mattered! Variation is also seen in the early records discussed previously—the thumb is retracted in Roth’s illustrations (figure 2), and Strehlow describes both forms. To date, I have found no examples where the position of the thumb is contrastive, so for the remainder of this article I represent both variations of the horns hand (“corna” and “ILY”) as Ψ , the symbol Kendon used in the *rdakardaka* font that he devised for his fine-grained descriptions of signs from the NCD.⁷

Sign Polysemy and Semantic Networks

Before looking in more detail at the signs that employ the √ handshape, I briefly discuss another important feature of Australian Indigenous sign languages. In all regions considered in this article the lexicon of spoken languages is far more extensive than that of sign, with sign repertoires varying between an upper recorded limit (for Warlpiri) of around 1500 signs (Kendon 2013[1988], 95) and a lower one of perhaps several hundred.⁸ Consequently, the mapping of sign to speech in Australian Indigenous sign languages does not, in many instances, present a one-to-one correspondence. Although this many-to-one mapping is perhaps unremarkable and many signs have multiple meanings, the principled way in which mappings between speech and sign occur can be indicative of underlying conceptual principles. Although it does not involve the √ handshape, an example of what Evans (1992) has termed “hyperpolysemy” comes from Carl Strehlow’s documentation of Western Arrarnta signs, where the following meanings, distinguished in spoken Western Arrarnta, map onto one sign (see also Wilkins 1997). A common thread of association between evil and malevolent or powerful forces is clear for most of the listed meanings of the sign, which involves a stabbing action made with an extended little finger or “pinky.”⁹

- (i) evil being, devil, monster (*erintja*) #35
- (ii) witch doctor, healer (*ngankara*) #36
- (iii) enemy (*lěltja*) #33
- (iv) enemy, man with feather shoes (*ininja*) #37
- (v) marsupial mole (*tóturatùra*) #73
- (vi) mantis (*iltjěltja*) #161
- (vii) poisonous bush, *Duboisia hopwoodii* (*monanga*) #219
- (viii) venom-gland of snake (*ntjikantja*) #260
- (ix) poisonous (*rungulta*) #365

Distribution of Horns Handshapes in Australian Indigenous Sign Languages

Based on the available data, and bearing in mind the fact that the records vary in their scope and completeness and that there have been decades of difference in terms of when these records were made, the

incidence of the √ handshape is highest in communities in Central Australia. The √ handshape is found in around 8 percent of the lexicon of Anmatyerr and Kaytetye sign, and in 7 percent of Warlpiri and Warumungu sign. In Anmatyerr it is found in around 24 sign forms, compared to 31 in Kaytetye, 51 in Warlpiri, and 31 in Warumungu (Kendon 2013[1988], 126–28).¹⁰ On the periphery of this central region the √ handshape is less common—for example, in the Western Desert there are only three examples in a set of 135 signs coded for handshape (Ellis et al. 2019). Both variants of the handshape appear in three signs—the Pintupi sign ROCK WALLABY “*warru*” (a rock-dwelling macropod), and the Ngaanyatjarra signs EMU “*karlaya*” (a large flightless bird) and FEATHERFOOT “*tjinakarrpilpa*” (a ritual avenger; Ellis et al. 2019, 97).¹¹ In Balgo there is only one sign that uses this handshape (Jorgensen 2020). It is a “marginal handshape” in sign languages used in Arnhem Land (Adone and Maypilama 2014, 24; Bauer 2014, 83) although the √ handshape is attested in old records from the community of Milingimbi in a sign for “hawk” (Warner 1978, 390). In *The Illustrated Handbook of Yolŷu Sign*, both variations of the √ handshape are listed in the explanatory material, but no examples of signs using it are given (James, Adone, and Maypilama 2020, 175, 300).

In the following sections I examine several semantic “clusters” where the √ handshape is found: (1) flora and fauna, (2) a set of signs that use the √ handshape that have some notion of negative affect in common, (3) the MOTHER sign, and (4) the GO sign. In each of these sections, I draw attention to salient aspects of sign articulation, and where possible suggest motivating factors for their form.

Flora and Fauna

There are no truly “horned” animals indigenous to Australia. While there are signs for introduced horned animals such as cattle, goats, and buffalo, these do not employ the √ handshape, and they are based on alternative depictions of the animal’s horns or feet. The mountain devil or thorny devil lizard (*Moloch horridus*) is a distinctive species found in the arid regions of Australia (figure 4). Named after the biblical Canaanite god Moloch popularized in Milton’s *Paradise Lost*, these small creatures are both intriguing and benign, despite being

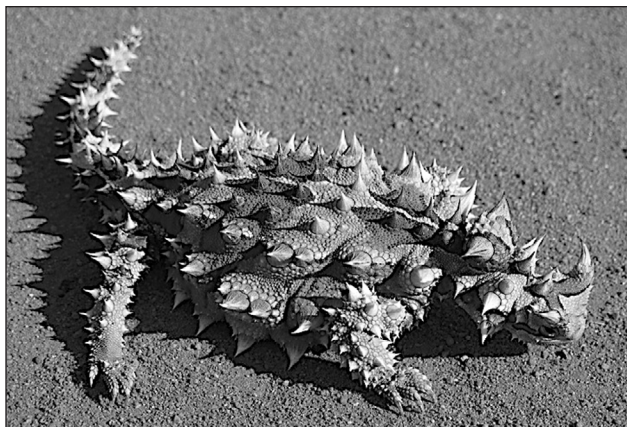


FIGURE 4. Mountain devil lizard (*Moloch horridus*). (Photo: J. Green)

“marred with a wicked common name.”¹² They eat ants, are covered in spikes, and have a false “head” on the back of their necks that can act as a decoy if they are attacked (and their “real” head is tucked between their legs). Their gait is unusual—they move slowly and haltingly and rock backward and forth. The lizard, called *arnkerrth/nywerr* in Anmatyerr, is an important Dreaming (see the section titled “Mothers, Dreaming and Pointing to Eternity”), and the false head is believed to be a bundle of ceremonial ochre that the lizard carries carefully along as it travels through the ancestral landscape from one place to another.

The Warlmanpa, Warumungu, and Anmatyerr signs for the mountain devil lizard all employ the ♡ handshape.¹³ When Anmatyerr signers produce the sign MOUNTAIN DEVIL LIZARD their hand moves in a simulation of the odd gait of the lizard, and as they sign several have described how the lizard “*Atyenpel altherlapem alakenh* ([It] goes along slowly like this).” It could be hypothesized that spikiness or the quality of being “thorn-like” is a motivating factor for the handshape used in this sign, and several others that employ the ♡ handshape.¹⁴ For example, an edible fruit of the bush tomato (*Solanum chippendalei*) is enclosed in spiky seedcases (figure 5). The Anmatyerr and Warumungu signs for this species are formed with a ♡ handshape and the movement of the sign replicates the action used to clean the bitter

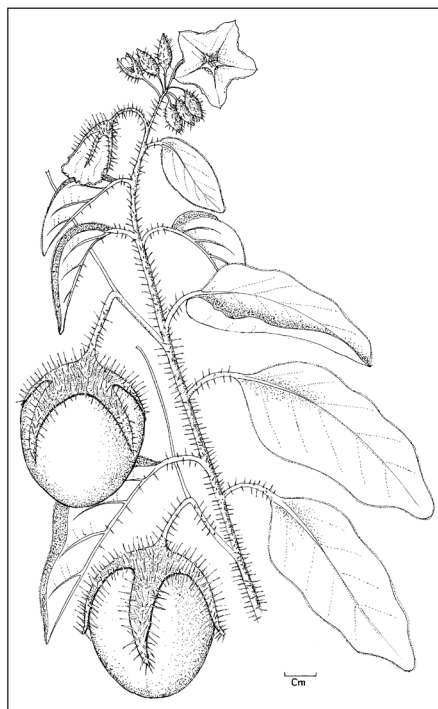


FIGURE 5. Bush tomato (*Solanum chippendalei*). (Illustration: J. Green)

seeds out of the fruit before eating it (see also Kendon 2013[1988], 164–65). In Warlpiri the sign for *nyinjirri*, the spiny-tailed monitor (*Varanus acanthurus*), so named because of its spiny tail, uses the Ψ hand, as does the sign for *warlura*, the smooth knob-tailed gecko (*Nephrurus levis*), where the extended index finger of a Ψ hand taps the side of the nose.¹⁵ Despite being dubbed “smooth” in its official common name, the latter has pointed scales on its tail. The handshapes used in signs for the mountain devil lizard and other spiky reptiles and for the bush tomato may be motivated by a quality of “thorniness,” but in addition the movement parameter of some signs replicates real-world actions. Both of these examples display more than one meaningful or iconically motivated sublexical structural element.

While not all flora and fauna signs that employ the Ψ handshape share the obvious attribute of spikiness (for example DINGO, BANDICOOT, GALAH, CROW, DIAMOND DOVE, STONE CURLEW,

CARPET SNAKE, and BLUE-TONGUE LIZARD), nevertheless the examples given above do point to a loose semantic association between the handshape and detailed observations of physical aspects of species as one factor underlying the form of these signs.¹⁶ Another source of motivation lies in cultural beliefs that link certain plants and animals to other phenomena, including other species and social events such as illness and danger. In an article that discusses “indicator species” in Central Australia, Turpin et al. (2013) suggest that “birds and insects that vocalize at night are often associated with danger because malevolent beings travel at night” (2013, 27). This observation provides a conceptual link to the next question—whether or not the √ handshape is found in a significant number of signs that could loosely be associated with negative affect.

The Horns Handshape and Negative Affect

As discussed previously, both Strehlow and Roth documented the √ handshape in signs associated with sickness, danger, and death. In the data considered in this article, we find that in Anmatyerr, Mudburra, Kaytetye, Warlpiri, Warlmanpa, and Warumungu the sign DEAD/DIE uses the √ hand, as does the sign SICK in several of these languages, and BAD/WRONG in Warlpiri and Kaytetye. In Alyawarr and in Eastern and Central Arrernte a sign for a category of dangerous or monstrous characters (*inentye*, *rlwaylp*, *arrenty*) uses the √ handshape, as do some concepts of shame and avoidance in several languages (see table 1). The sign CROW in Warumungu, Warlmanpa, Kaytetye, and Anmatyerr, and the Warlpiri sign STONE CURLEW use the √ hand. Both of these birds are identified as harbingers of bad luck (Turpin et al. 2013). In light of the association found elsewhere in the world between the √ handshape and “danger” or negative affect discussed above, these associations in records of Australian Indigenous sign seem to be more than mere co-incidence.

Some of the examples shown in table 1 are drawn from records that stretch back to the late 1800s, and others are recent examples of the signing practices of what are now senior people. However, another feature of Australian sign (and gesture) systems is the dimension of innovation. Sign language repertoires are dynamic and in flux, “as language users reinvent and reinterpret form and meaning over

TABLE 1. The Horns Handshape and Negative Affect

	BAD, WRONG	DIE, DEAD	SICK	DANGER, POWER	SHAME
Warlpiri	✚	✚			✚
Warumungu		✚	✚		✚
Warlmanpa		✚			✚
Mudburra		✚			
Kaytetye	✚	✚	✚		
Anmatyerr		✚	✚		✚
Alyawarr				✚	
W. Arrarnta	✚				
Eastern & Central Arrernte			✚	✚	
Queensland (various languages)	✚	✚	✚		

time” (Occhino 2017, 69). In an example of an emblematic gesture that appears to draw on the “devil’s horns” iconicity found across the globe, Mansfield reports on how a version of the ✚ handshape is used in Wadeye (in the Northern Territory) to indicate the “Evil Warriors,” one of two “heavy metal mobs” found in the community. He suggests that the fact that *ku karratj* “the devil” is a clan totem of some founding members of the “gang” was a motivating factor for the “Evil” part of the name, and that the “Warriors” part was influenced by *The Warriors* (1979), a dystopian film about urban gangs in New York City (Mansfield 2013, 8). The ✚ handshape is also used in Wadeye to refer to the Demons (Melbourne Football Club), a team in the Australian Football League.¹⁷

When we examine the handshapes used in several signs, we find some minimal differences and possible variation between use of the ✚ handshape and a handshape where only the little finger or “pinky” is extended. Earlier I discussed a hyperpolysemous sign example that uses this handshape in Strehlow’s sign documentation. Some of the meanings are clearly associated with negative affect—“evil being,” “enemy,” “poisonous,” and so forth. Sign #37 *ininja* “enemy with feather shoes,” which is formed with an extended pinky, is only minimally different

to the Eastern and Central Arrernte sign for *inentye* (*ininja*), which uses the ♣ handshape. Another sign in this group described by Strehlow, and glossed as mantis (*iltjéltja*), is identified as either a grasshopper or a cricket in some other Arandic languages. As Turpin et al (2013) write of the Kaytetye term *ltyweltye*, “the chirruping of the black field cricket (*ltyweltye*) at night are all signs [indicators] that someone has passed away in the region” (2013, 27). Signs with pinky extension are strongly loaded with negative connotations in sign languages from other parts of the world (Yang and Fischer 2002, 187; Fischer and Gong 2011, 33). In Mongolian sign language pinky extension is associated with malevolent forces (Healy, 2011), and in Chinese Sign Language it is used as a negative morpheme and contrasts with the thumb as a positive morpheme (Fischer and Gong 2011, 33).

Mothers, Dreaming, and Pointing to Eternity

Another group of signs that employ the ♣ handshape is centered around denizens of the sky (airplanes, butterflies, mirages), the kinship sign MOTHER, and also some temporal notions that appear way back in Strehlow’s records of sign, but are also found in the signing of Central Australian signers 120 years or so on. What motivates the use of the ♣ handshape in this semantic cluster remains unclear, but there are some threads that provide coherence to this set of signs. I will first lay out some basic cultural premises that underpin these before giving some sign examples. Table 2 shows the incidence of the ♣ handshape in seven languages, in what I am calling the *mother/dream/sky/eternal* complex. In the examples given next, I will attempt to tease out the cultural logic for grouping them thus.

The Mother Sign. The sign MOTHER is formed with the ♣ handshape in Anmatyerr, Warlpiri, Warlmanpa, and Kaytetye.¹⁸ The sign’s movement involves an action of the wrist that may vary in its amplitude and extent—from a rapid supination of the wrist to a more energetic action that simultaneously traces an arc (figure 6). It seems that the orientation of the hand in the sign MOTHER—whether it faces toward the signer or away, depends very much on utterance context. For example, if the sign MOTHER is followed by a first-person pronominal sign (e.g., to sign “my mother”) the orientation of the ♣ handshape

TABLE 2. The Ψ Handshape in the *mother/dream/sky/eternal* Complex

	MOTHER	MOTHER'S DREAMING, TOTEM	DREAM	ASCENDING GENERATION	FAMILY, RELATION	SKY	ALWAYS, ETERNAL	PRIEST
Warlpiri	Ψ			Ψ		Ψ	Ψ	Ψ
Warumungu						Ψ	Ψ	
Warlmanpa	Ψ		Ψ			Ψ	Ψ	
Kaytetye	Ψ		Ψ			Ψ	Ψ	
Anmatyerr	Ψ	Ψ	Ψ		Ψ	Ψ	Ψ	Ψ
Alyawarr							Ψ	
W. Arrarnta							Ψ	

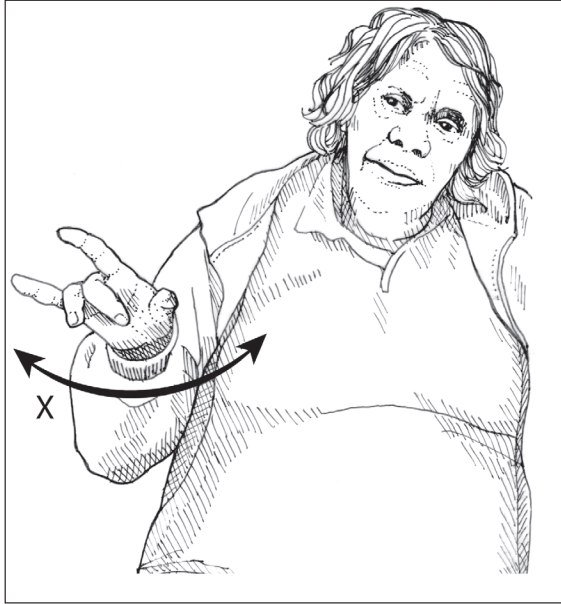


FIGURE 6. Anmatyerr sign MOTHER. *Note.* The “X” refers to multiple repetitions of the sign action. See an example at <https://iltyemilyem.com/sign/anmatyerr/mwek/>.

is toward (palm facing) the body, perhaps to enable a fluid transition from the sign MOTHER to an index finger point toward the signer’s body.¹⁹ Generally the sign for a person’s mother and their maternal uncle (mother’s brother) is the same, although several Anmatyerr signers differentiated between the two by reducing the wrist rotation for the sign UNCLE, thus distinguishing it from the sign MOTHER.²⁰

As far as kinship signs go this MOTHER sign is notable, because unlike most other Australian Indigenous kinship signs, it does not involve articulation of the signing hand with another body location (Green et al. 2018, 10; Kendon 2013[1988], 339). Why the MOTHER sign stands apart from other kinship signs in its lack of association with a body location remains a puzzle, although Kendon notes that the MOTHER sign is similar to the Warlpiri sign for the suffix -PALANGU “belonging to the ascending generation” (Kendon, Robertson, and Nangala 1990).²¹ When asked for a sign equivalent to Warlpiri -PALANGU, Anmatyerr signers suggested the signed

suffix *-ARTWEY*, which similarly uses the Ψ handshape. Although the Anmatyerr spoken language suffix *-artwey* “having a particular relation” is not identical in meaning to Warlpiri *-palangu*, there is substantial semantic overlap between the two (Green 2010, 244, 245).

There is variation in the MOTHER sign, even in closely related language communities. In Arrernte and Alyawarr, both Arandic languages that essentially share the same underlying principles of kinship and social organization as the Anmatyerr and the Warlpiri, the sign MOTHER articulates to the stomach or the breast and does not use the Ψ hand. Strehlow describes the Western Arrarnta sign MOTHER as formed thus: “With the tips of 1 and 2 [fingers] one grasps a nipple” (Strehlow 1915).

As is the case for other kinship signs in these languages, the sign MOTHER may be inflected to denote various concepts that in spoken language are represented by suffixes added to the kinship term. For example, in Anmatyerr the dyadic function (mother together with kin such as a son or daughter) is achieved by a circular looping motion of the Ψ handshape toward the body, achieving the meaning of MOTHER+DYAD (figure 7). In Anmatyerr the Ψ handshape is also employed in signs for kin-marked non-singular pronominal forms that indicate that kin belong to opposite patrimoieties (for example pronouns such as “we two, related as mother and child”). To our knowledge these types of sign modification in the kinship domain are not found in the sign repertoires outside of the NCD region. Kendon suggests that these are the only examples where inflection is accomplished by modifying sign movement, as is characteristic of primary sign languages, rather than by adding a second sign (Kendon 2013[1988], 345). Figure 8 shows the Anmatyerr sign GREEDY, which forms a minimal pair with MOTHER (figure 6) and a near-minimal pair with MOTHER+DYAD (figure 7).

Signs for “Dreaming.” The English word “Dreaming” is a contested translation for a complex set of Australian Indigenous concepts that provide an ontological framework for life itself—the intersection of land, people, and culture—that has existed since “time immemorial” and is “continually in the making” (Merlan 1997, 17). As I have outlined elsewhere (Green 2012), one term that has, to paraphrase



FIGURE 7. Anmatyerr sign MOTHER+DYAD.



FIGURE 8. Anmatyerr sign GREEDY.

the anthropologist W. E. H. Stanner's words, "suffered badly by translation" is the Arandic term *altyerr(e)* (also spelled as *altjira* in Western Arrarnta). One of its inter-related meanings was corralled to form the basis of the English term "Dreaming." The word "Dreaming" can refer to a creative epoch when Ancestral beings formed landscapes and their inhabitants and established templates for human sociality, as well as to the Ancestors themselves. In some contexts, the word *altyerr(e)* has been adopted as a term for the Christian concept of "God." Carl Strehlow glossed *Altjira/altjira* as "God, the Uncreated One; dreaming being" (Kenny 2018, 163, 164), and in this instance capitalization delimits secular meanings from religious ones. There has been heated debate about appropriate translations for such words in the lexicons of Indigenous languages (see Green 2012; Moore 2019 for detailed background and some contrasting views). However, for the most part, clues about meanings that might be provided by an approach that explicitly considers the inter-relationships between semiotic systems, such as speech and sign, have largely been ignored. Wilkins (1997) forms an exception. I now outline some connections between signs that use the ♡ handshape, the MOTHER sign, and spoken language terminologies in this domain.

In several Arandic spoken languages from Central Australia there is an important terminological distinction between the Dreamings (sometimes called "totems") that a person inherits through their father and the Dreamings that they inherit through their mother. Those inherited through the mother are referred to by the term *altyerr(e)* or its equivalents (Green 2012, 168, 169; Wilkins 1993, 76, 77). This distinction, between two main pathways of connection to land and all it embodies, is largely lost in the simplification that equates all of this complexity with the English term "Dreaming." If one pays attention to sign, the difference is immediately apparent, just as it is in Arandic spoken languages.

In the Anmatyerr signed utterance represented in figure 9, the signer first signs HONEY ANT and then ALTYERR-DREAMING (employing the ♡ handshape). In this utterance the use of the sign ALTYERR-DREAMING makes it clear that the person is referring to the inheritance of Dreamings (in this example the Honey Ant Dreaming) from their mother's country. If the Dreaming had originated in



FIGURE 9. Signed utterance “Honey Ant Dreaming.”

their father’s country the second sign in the utterance would be different, formed with a flat hand pointing downwards and enacting a circular movement.

As outlined previously, English translations of the spoken term *altyerr(e)/altjira* have attracted controversy. One aspect of this dispute centers around whether or not the word *altyerr(e)/altjira* can, in some contexts, mean “dream.” We have seen how the Ψ handshape is employed in the sign MOTHER and, at least in the Anmatyerr language group, in a sign that refers to a person’s Dreamings from their mother’s country. So, is there any connection evident in sign between the Ψ handshape and signs for so-called ordinary everyday or “secular” dreams? If we take as a starting point the assumption that the process of “dreaming” embodies both everyday and sacred knowledges with varying degrees of potency, it can be seen in table 2 that three of the languages surveyed use the Ψ handshape for terms that have been glossed as “dream” (*altyerre* in Kaytetye; *puwarijipa* in Warlmanpa; and *anengkerr* in Anmatyerr). In Anmatyerr sign the process of “dreaming” is formed by a two-sign sequence, DREAM and LOOK, paralleling

what is found in Anmatyerr spoken language (*anengkerr* “dream;” *arem* “look”).²²

Pointing to Eternity. It can be seen that in the majority of the Central Australian sign languages surveyed, the sign ALWAYS, ETERNAL involves the √ handshape, although the orientation of the hand and the movement parameters vary. In all of the sign communities represented in table 2, the √ handshape points upward, with one exception—for Strehlow this horn-handed sign is directed to the ground. In his written description of sign #384 *kuta* “always” he states that “One extends [fingers] 1, 2, 5, puts 3, 4 on the palm and moves this downwards quickly a few times so that the back of the hand faces downwards.” The sign recorded by Strehlow and glossed as *altjira* “God” is formed with an index finger pointing skywards and is described as follows: “One holds 2 extended upward, all others on the palm, and moves 2 in a small circle in front of one, from right to left.” Strehlow notes that this sign for GOD is the same as the sign for SKY, not surprising perhaps, as he also wrote that “*Altjira* is the good god of the Aranda . . . his realm is limited to the sky.” Where data is available, it can be seen that many of the languages listed in table 2 also use the √ handshape to sign SKY and in related signs for sky-dwellers, such as airplanes, mirages, and butterflies.²³ If the orientation of the hand (toward or away from the signer) is discounted, then the signs ALWAYS, ETERNAL and SKY are only minimally different in some of these languages. The Kaytetye signs MOTHER and SKY also employ the √ handshape and are similar, if not identical. In Anmatyerr and Warlpiri the sign MINISTER or PRIEST also uses the √ handshape.

The rather complicated scenario outlined in this section—and some of its unresolved questions—may in part be a consequence of imprecise glossing of sign forms, but also of inconsistent and variable approaches to sign language documentation by different researchers over a lengthy time-span. There are gaps in the data. For example, Strehlow glossed a spoken language phrase *tmara altjira* (lit. “country dream”) as “mother’s conception site,” or “totem place” (Kenny 2018, 338). We will never know if he asked Western Arrarnta people how they would sign the equivalent of this and we do not have data on current use of Western Arrarnta sign. Some of the variation seen may

also be also be the result of change. Sub-lexical structural elements of signs, such as the orientation of the hand (in this case whether it is directed skywards or toward the ground), may adjust to accommodate new conceptual categories. As Indigenous people reorder semantic spaces to incorporate new beliefs into pre-existing ontological frameworks terminologies (both signed and spoken) adapt and take on new meanings. This semantic realignment is implicit in the *mother/dream/sky/eternal* complex, where old signs are repurposed or new ones are configured to refer to concepts such as PRIEST or GOD.

Moving through Space—The Sign GO

Although semantically unrelated to the “clusters” discussed previously, the sign GO in several Central Australian languages, including Warlmanpa, Warlpiri, Warumungu, Mudburra, Kaytetye, and Eastern and Central Arrernte, employs the √ handshape. The Western Arrarnta sign *lama* “to go” described by Strehlow uses it, and in a range of languages it also appears in signed verbs equivalent to spoken language terms, such as those glossed as “walk,” “return,” “go around,” “emerge,” “wander off,” and “take off (bird).” The sign GO is frequently directed in space to encode the goal of motion, by moving toward a target before being rapidly retracted. As Kendon pointed out, “the capacity to depict direction and form of motion directly in the visual form” is one of the signature features of sign, and it is “fully exploited” (Kendon 1980, 106). Although Wilkins had previously regarded the √ handshape as one of several handshapes used for pointing (Wilkins 1999, 34), he later noted that this action, used to indicate “global orientation of a place that is being moved to,” is regarded as a conventional sign by Arrernte speakers (Wilkins 2003, 184–185).

I illustrate the use of the sign GO in a verbal arts practice known as sand drawing, a desert artform perfected by women and girls. This is an example of the way that manual signing may utilize the ground as an anchor point, with signing one component of a multimodal utterance that may include graphic symbols drawn on the ground, as well as speech or song. Figures 10a and 10b show the typical orientation of a seated storyteller to the drawing space in front of them. The conventionalized U-shaped symbols seen on the ground come from a small set of graphic symbols that are frequently employed in sand

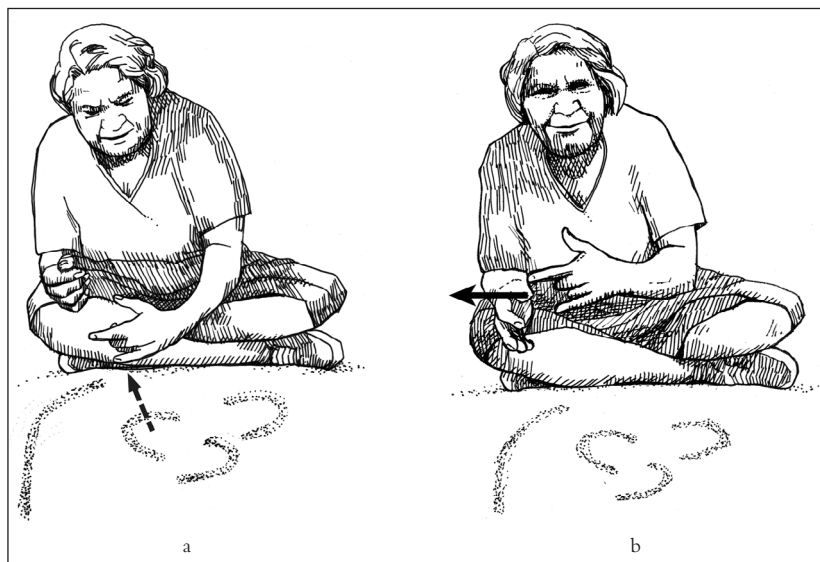


FIGURE 10. The sign GO in a sand story narrative (a) the hand articulates with the U-shape drawn on the ground (b) the signing hand moves higher.

stories (Munn 1973; Green 2014), and in this instance they refer to persons. The example comes from an Anmatyerr sand story involving a network of kin relations, including two brothers and their wives, and the day-to-day activities of collecting bush foods and returning to camp. The sign GO is articulated after the narrator's hand contacts the ground to establish a visual link with the drawn U-shape and is cotemporaneous with the speech *alhem* "go" (figure 10a). Then the sign GO moves higher in the sign space and the narrator lifts her gaze (figure 10b). In this instance the speech affiliate is *pwety-warl* "toward the bush." In stories such as these the direction of the motion is intentional, anchored in absolute space, and it remains constant even if the storyteller is facing in various different directions. This is another feature of sign and gesture in Australian Indigenous communities.

Another example of the sign GO illustrates an additional dimension of the semiotic versatility of these sign languages. In a preliminary recording session with an Arrernte elder, I videotaped about twenty or so signs that are articulated through hand-to-hand tactile engagement. This greatly reduced system may be used with visually impaired

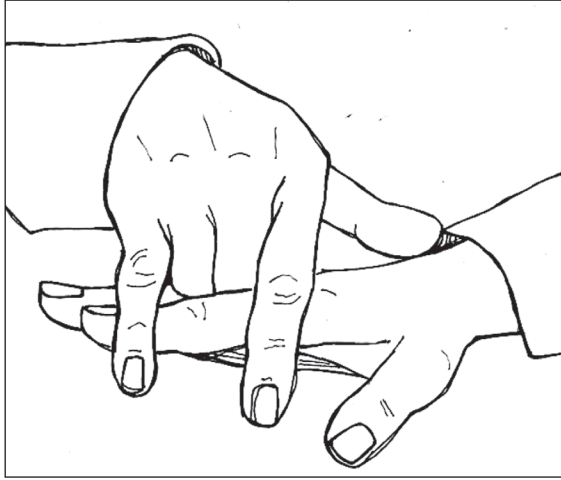


FIGURE 11. The sign GO articulated on an interlocutor's hand.

interlocutors, and in Arrernte it is referred to as *iltye lyarnemele ileme*, literally meaning “telling by touching the hand” (Green and Wilkins 2014, 257). Salient aspects of “ordinary” signs are chosen for this form of representation, and the √ handshape of the GO sign was one example given (figure 11).²⁴

Finally, the √ handshape itself can undergo modifications in particular contexts where communication is indirect and markedly respectful, such as when signing is about avoided kin (Green, 2019). In these contexts, the signing space is reduced and the √ handshape may either be contracted to a fist, or the protrusion of the index and little fingers lessened. For example, in the sand story narrative discussed previously (figures 10a and 10b), the sign GO would be articulated in this fashion *if* the story was about a woman's son-in-law (who is in a woman's avoided kin category). This is an example of how the form of a sign can be influenced by “social-interactive factors” (Occhino 2017, 74).

Sign Compounds and Other Articulatory Parameters

The formation of sign compounds that parallel ones found in spoken language is common in these Australian Indigenous sign languages and is yet another demonstration of the complex relationships between

modalities. An Anmatyerr sign example that involves the √ handshape is OPEN EYES, equivalent to the spoken term *anngampem~alkngampem* (*annga/alknga* “eye”; *ampem* “burn”). It is articulated with a √ handshape directed toward the signer’s eye, followed by the sign BURN, which is a “fingersnap” formed by clicking the thumb and middle finger together.²⁵ It is noteworthy that, in this instance, it is the √ handshape that “points” to the eye, rather than an index finger, which is often used to indicate body parts (see Wilkins 2003).

While the focus of this article has been on the √ handshape there are other parameters that may also be semantically driven and particularly salient when it comes to distinguishing between signs. In this final section, I will briefly discuss two of these: *location* and *movement*. While there are some signs where the √ handshape is either articulated on a body location or is directed to a particular body part, the majority of the signs surveyed are formed in the neutral space in front of the body. The use of the upper part of the signing space is in some instances an important parameter that distinguishes otherwise identical signs (Kendon 2013[1988], 137; Jorgensen 2020, 38, 40). As discussed, this is particularly the case for signs that employ the √ handshape in the *mother/dream/sky/eternal* complex. Contrastive body locations for signs that involve the √ handshape include a Warlpiri sign for a particular type of lizard, where the √ handshape touches the side of the nose, an Anmatyerr sign BLUE-TONGUE LIZARD where the hand touches the side of the face, the sign KNOW/HEAR (in the majority of languages surveyed) where the hand points to the ear (see Evans and Wilkins 2000), and a sign for HEADBAND (Anmatyerr, Warlpiri) where the hand traces a path across the forehead.

There are subtle differences between some signs that use the √ handshape based on variations in path and wrist movements, and changes in these parameters can distinguish otherwise identical signs. These include upward and downward movements of the hand, movements from side to side (e.g., ALWAYS, ETERNAL in Anmatyerr, Kaytetye, Warlmanpa, Warumungu), circular movements of the hand (e.g., CEREMONIES in Mudburra and Jingulu; GREEDY in Anmatyerr, figure 8), and movements of the wrist (e.g., MOTHER in Anmatyerr, figure 6). A “trembling” or “rapid, small amplitude

movement” (Kendon 2013[1988], 471) is found in some signs that use the Ψ handshape (e.g., SPEAR in Warlpiri; STINGING FLY in Warumungu). Further research is needed to account for individual and language-specific variation, and to tease out the competing factors of articulatory ease and perceptual salience that coalesce in these conventionalized sign forms (see Eccarius 2008).

Conclusions

In this article I have examined the use of the horns (Ψ) handshape in Australian Indigenous sign languages and outlined some semantic commonalities in groups of signs that employ it. The distinct semantic clusters identified: (1) flora and fauna, (2) signs for negative affect, (3) the *mother/dream/sky/eternal* complex, and (4) the sign GO—do not account for all instances of usage of the Ψ handshape. However, these loose groupings of signs that share particular articulatory features as well as semantic ones illuminate some factors that underpin the “complex interplay between iconicity and the lexicon” (Perlman et al. 2018, 14). While the use of a particular handshape such as the Ψ handshape does not tell the whole semantic story, nevertheless, it is an example “where repeated use of an iconic strategy serves to identify members of a lexical group” (Padden et al. 2013, 289; Hwang et al. 2017). Examination of the distribution of the Ψ handshape also adds to what is known about the interaction between phonology and iconicity in these Australian Indigenous sign languages, a topic that has, for sign languages in general, been “swept under the rug” until quite recently (Fisher and Gong 2011, 20). Much more fine-grained work is needed to understand the articulatory dynamics of these sign languages—whether there are predictable patterns of variation at the utterance level and between individuals, and whether some highly iconic “key” features of sign action are maintained at the expense of others, without disrupting the meaning of a sign. It may also be the case that there is a high dependence on utterance context for the disambiguation of otherwise near-identical signs, but further empirical work is needed to establish this.

In some instances, there may be multiple motivations identified for a form-meaning pairing, and in others the motivation is not

transparent or varies in interpretation, possibly between individuals, and between users of closely related sign varieties. That said, when it comes to ascertaining motivations underlying claims of semantic relatedness, I am alert to the problems of providing an outsider view about what might be driving iconicity. While iconic form-meaning mappings may be based on “salient features of real-world objects or events” (Perniss et al, 2010), judgments about salience are variable and “can be so particular to a culture that it is non-obvious to those outside the culture” (Napoli 2017, 521; Occhino et al. 2017). Folk etymologies regarding the source of the motivation for these conventionalized actions may vary even within speech/sign communities, and may remain largely opaque. Such opacity in itself may be valued and intentional, as it sequesters insider knowledge to those with the right to fully understand it. Furthermore, the motivation for partnerships between meaning and form may change over time and, as such, provide a barometer for social, cultural, and historical change. On occasion, the motivated link that underpins a meaningful bodily action may be lost to general community knowledge even as the form of the action remains.

I have highlighted the advantages of taking a perspective that is grounded in the communicative ecologies where sign is found and recognizes the interdependence of sign and speech. Signed languages and other forms of communication in the visual-gestural modality almost always co-exist with spoken languages, and consequently their “ecologies are often intertwined” (Braithwaite 2019, e180). Signed languages embody worldviews and conceptual categories that may become explicit if a broad approach to semantic categories is adopted, and if insights from sign illuminate the meanings of spoken language and vice versa. Sign to speech mapping is not uniform, but by examining the principles and patterns that underpin these cross-modal relationships we get a glimpse of salient cultural principles underlying these rich expressive systems. In some of the examples outlined in this article we can see how evidence from sign parallels important meaning distinctions in speech (the Dreaming examples). In others, where there is a many-to-one relationship between speech and sign, form-based groupings of signs illuminate the structural underpinnings of conceptual categories.

Australian Indigenous sign languages, used mainly by hearing people in particular cultural circumstances, occupy a particular niche in the multiplicity of human communicative practices. While much research on sign has focused on large-scale sign languages from developed countries, there is a lot to be gained from broadening attention to include lesser described ones, including the “alternate” sign languages used by Indigenous Australians. In part it is the relationship of these sign languages to speech that “gives these sign languages a special interest” (Kendon 2015, 12). This analysis of the incidence of the typologically unusual horns handshape in Australian Indigenous sign languages provides a springboard for further investigations of iconicity in these languages and sets the stage for more robust understandings of the distinct ecology of manual actions found in these communities.

Acknowledgments

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Notes

1. In the Australian context “Indigenous” is a very general term that covers both Aboriginal and Torres Strait Islander peoples. It is conventionally capitalized. See <https://aiatsis.gov.au/explore/australias-first-peoples>.

2. Nonmanual features, such as mouthings, appear to be an important feature of signing in some Australian Indigenous communities, but not in others.

3. It is estimated that prior to colonisation there were at least 250 to 300 Australian Indigenous spoken languages. Only twelve are now regarded as “strong” and as being transmitted inter-generationally (Australian Government 2020). Sign languages are not factored into these estimates of language vitality.

4. Whereas there is evidence of some fingerspelling being used along with sign in Australian Indigenous communities, the two-handed Auslan version of fingerspelling is used rather than the one-handed ASL one.

5. There is one example in the data set of a horns hand with an extended thumb, expressed in Kendon’s notation as $\forall\cup$.

6. Archival sources: SIGN-20140828-LM-03 (00:05:04.063-00:05:06.507); SIGN-20140827-LM-60.

7. The OpenType Font RR3.4.otf is a 2016 conversion by Siva Kalyan and David Nash of Kendon’s 1985 Macintosh bitmap font (see Kendon 2013[1988], 462).

8. If the estimate is based on the number of unique Warlpiri sign forms then this count is around 1300 (see Jorgensen et al. 2021).

9. The spellings of the Western Arrarnta (Arrernte) words in this example, and some modifications of their glosses, are from Kenny (2018).

10. These estimates are based on datasets that exclude compound signs, signs where there is a change of handshape, and asymmetrical 2-handed signs (Kendon 2013[1988], 112, 128; A. Kendon, personal communication, to J. Green, September 2020). The counts are based on frequencies of the handshape in sign types, rather than in token counts. A recent analysis of this primary data found, for example, that in Warlpiri the horns hand is the fifth most common handshape, accounting for 5 percent of the handshapes used in unique sign forms. In these the horns hand was found in 70 sign types (Jorgensen et al. 2021).

11. Sign movement for EMU and FEATHERFOOT are different, but the semantic connection between them is well attested, as the *tjinakarrpilpa* disguises his tracks by wearing shoes made of emu feathers (Ellis et al. 2019; Wilkins 1997, 438).

12. See <https://www.bushheritage.org.au/species/thorny-devils> Accessed 10 April 2021.

13. There are also some other signs for this lizard that do not employ the horns handshape.

14. Kendon was alert to this possibility and wrote, “Look out for other thorn-like things. I think ♣ occurs in them” (Kendon 1986–97).

15. Archival source: SIGN-20140828-LM-03 (00:05:04.063–00:05:06.507).

16. On a comparative note, in SASL (South African Sign Language) the horns handshake is used in the sign HIPPOPOTAMUS, with the extended fingers of the lower hand perhaps representing the prominent lower teeth of this animal. <https://www.realsasl.com/all-videos/video/392-hippo>. Accessed 12 June 2020.

17. L. Davidson, personal communication to J. Green, August 6, 2020.

18. Paralleling the case in spoken language kinship terminology, this sign is also used for equivalent kin, such as a person’s mother’s sisters (called “aunts” in English).

19. Archival source: SIGN20130523-03 (00:01:21.720–00:01:22.810).

20. Archival source: SIGN20181010-05 (00:13:35.325–00:13:48.115) and Sign20110630_CLong_01. An alternative sign for uncle (mother’s brother) articulates with the chest.

21. Some social categories relevant to an understanding of kinship terminologies across Australia include moieties (patrimoieties, matrimoieties and generation moieties) and the section and subsection systems, known as “skin names” in Aboriginal English.

22. Archival sources: Sign20181010-06 and Sign20181010-05.

23. See <https://iltyemiltyem.com/sign/anmatyerr/pelayn-mwerr-alker-areny/> Accessed 28 June 2020.

24. Margaret Kemarre Turner to J. Green, July 2012.

25. Kendon discusses the “fingersnap” that he found occurring in various Central Australian sign languages. He wrote, “These signs all have in common either the meanings of extremes of time or space (as in “long time ago,” “long way away”); or the meaning of sudden onset or completion of something (as in “burnt,” “cooked,” “flare up,” and the like)” (Kendon 2013[1988], 149).

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