Diverse strategies in homesign language socialization: A case study of a directive-response trajectory

Lauren W. Reed
Tilburg University, The Netherlands
Australian National University, Australia

Abstract: Homesign languages are ways of communicating innovated by deaf people who have no access to other languages (neither spoken nor signed), with variable degrees of input from their family, friends and wider community. These languages are typically only one or two generations old, and used by very small communities of users. Many properties of homesign have been identified, including word order to mark thematic roles, displaced reference, and narrative discourse. This article expands the list of properties attested in homesign and in so doing, identifies these as properties which do not require multiple generations nor large user communities to develop in a language. I take a language socialization approach and analyze a directive-response trajectory that unfolds between a deaf homesigning father and his hearing daughter living in the rural Highlands of Papua New Guinea. Via this vignette, we see evidence of the following properties in this homesign language: (1) arrangement and molding of bodies to facilitate interaction; (2) a wide range of attention-getting strategies; (3) prompting and thus metacommunication; (4) implicit and explicit directives and thus indirectness; and (5) socialization into the local value of reciprocity. This study is one of the few studies of prompting per se in any sign language; as such, it highlights a fruitful avenue for further research in this domain. It also shows that skills like body orientation and attention-getting strategies can be convergently evolved properties of sign languages rather than needing to be culturally transmitted via participation or immersion in a pre-existing deaf community.

Keywords: directives; homesign; prompting; metacommunication; indirectness; language socialization

Corresponding author(s): Lauren W. Reed, Department of Communication and Cognition, Tilburg University, PO Box 90153, 5000 LE Tilburg, The Netherlands. Email: l.w.reed@tilburguniversity.edu

ORCID ID(s): Lauren W. Reed: https://orcid.org/0000-0002-4014-2615

Citation: Reed, L. W. (2026). Diverse strategies in homesign language socialization: A case study of a directive-response trajectory. *Language Development Research*, *6*(2), 68–136. http://doi.org/10.34842/ldr2026-1069

Introduction

Homesign languages are ways of communicating innovated by deaf people who have no access to other languages (neither spoken nor signed), with variable degrees of input from their family, friends and wider community (Coppola, 2025; Frishberg, 1987; Goico & Horton, 2023; Goldin-Meadow, 2003). Susan Goldin-Meadow (2005:219), the pioneer of homesign research, lists the properties she and her colleagues have identified in child homesign (see also Brentari & Goldin-Meadow, 2017:368). These include differences in signs to mark grammatical functions (e.g., noun and verb); word order to mark thematic roles (e.g., who does what to whom); displaced reference; and the ability to relay narratives. Goldin-Meadow (2005:218) notes that "[i]t is, of course, possible that properties missing from [the list] really are part of homesign but that we have not yet looked in the right place to find them – we could, for example, look at adult homesigners who have had more time to generate their systems".

In this article, I reveal further properties of homesign via examination of a directive-response trajectory that unfolds between a deaf adult homesigning father and his hearing child in a homesign language from rural Papua New Guinea. I focus on a single vignette, in the conversation analytic tradition (Schegloff, 1987) and in the spirit of Chuck Goodwin (1979). Much homesign research focuses on how homesigners communicate with their peers or 'seniors' (e.g., siblings, friends or parents) (e.g., Goico, 2024; Goldin-Meadow, 2003; Horton, 2024). This article, in the spirit of Haviland (2016, 2022, inter alia) focuses on a different dimension: how homesigners communicate with their children or 'juniors' (e.g., offspring, or younger nieces or nephews), and in so doing, socialize their juniors in the homesign system (see also Horton et al, 2023 and Hou, 2020). In my analysis of this vignette, I discuss how the homesign language exhibits: (1) arrangement and molding of signers' bodies in order to facilitate interaction; (2) a wide range of attention-getting strategies; (3) prompting and thus metacommunication; (4) implicit and explicit directives and thus indirectness; and (5) socialization into the local value of reciprocity.

Here, I take a language socialization perspective; that is, one that is chiefly interested in how language (construed broadly) plays a role in shaping or socializing a person into a competent member of a group. Becoming a competent group member requires that the person be able to use language in a socially appropriate way; as such, somewhat reflexively, the language socialization approach is interested in how a person is socialized to use language, via language (Schieffelin & Ochs, 1986a, 1986b). Appropriate social language use involves many things, such as the understanding of when to use which tokens of language to effect what kinds of actions. It also involves competence in various aspects of form (e.g., phonology, morphology, etc.). Therefore, language acquisition (i.e., the development of formal competence) can be said to be captured within the language socialization approach (but not necessarily vice versa). For more information on language socialization including its relationship to language

acquisition, see Brown and Gaskins (2014).

Directives and Directive-Response Trajectories

The notion of a directive originated in the speech act theory tradition, which is focused on directives as an action category and as isolated, standalone utterances (Searle, 1975a). Over the past 45 years, Marjorie Harness Goodwin (M. H. Goodwin, 1980, 1990, 2006; M. H. Goodwin & Cekaite, 2014, 2018) has built on this foundation and studied directives not as isolated speech acts but rather as social actions, embedded in their actual context, and tightly connected to their responses. A focus on directives as communicative actions (rather than 'speech acts' per se) means that they can encompass utterances that are multimodal in character or perhaps involve only one articulator that is usually seen as paralinguistic when deployed (e.g., a point to an object to communicate 'hand that to me') (on nonverbal requests, see Rossi, 2014). Such a focus encompasses more than just the speech or sign stream; it takes a multimodal perspective where communication can take many embodied forms. In this paper, I take the M. H. Goodwinian stance that a directive is a category of communicative actions used for getting people to do things, where this action might be realized in a variety of ways (with linguistic forms or even entirely nonverbally), and might embody a range of different orientations to entitlement (on entitlement, see Craven & Potter, 2010).

The related 'recruitments' approach focuses on sequences in which an actor uses an action to engage another actor in performing a practical action for or with them (Rossi et al., 2020), or otherwise rendering them assistance (Kendrick, 2021; Kendrick & Drew, 2016). This approach is more focused on recruitment as an interactional achievement between two parties rather than on the first-pair part of the sequence (i.e., the directive or recruiting move alone). It is also focused not on any particular category or "bin" that the initiating move could be said to be (i.e., whether it could be said to be 'a display of trouble', a 'hint', a 'request' or a 'command') but rather, on the type of action that move seeks to elicit (i.e., a practical action for or with the issuer of the initiating move) (on the "binning" approach and a skeptical challenge to it, see Enfield & Sidnell, 2017; Sidnell, 2017).

Directive-response pairs often occur in streaks, which are known as directive-response sequences (M. H. Goodwin, 1980, 1990) or directive-response trajectories (M. H. Goodwin & Cekaite, 2014, 2018). Over the course of these trajectories, directives often change their form. In this way, a hint, a request and a threat issued in turn are not merely subsequent standalone acts. Rather, they are what Sacks (1995: 330-331) called "sequential versions of a something". That is, they can be seen as different iterations or re-presentations of a 'head' directive, designed to achieve some overarching communicative goal to get someone to do something. For more on directives and associated trajectories, see Rumsey and Dahmen (2026).

Corpus studies reveal patterns in how directive-response trajectories typically progress. For example, reasons tend to occur later in trajectories. In a study of directives issued by support workers to intellectually disabled adults, explanations tended to follow an unfulfilled request. There were few examples of the opposite pattern (Antaki & Kent, 2012). In a study of recruitments in Siwu, reasons most commonly occur after an initial attempt at recruitment. It is rarer for reasons to appear first in a sequence (Dingemanse, 2020). In a study of request sequences in Russian, Baranova and Dingemanse (2016) found that out of 57 sequences that contained a reason, 25 followed the pattern "Request → Problematic uptake → Reason". A further 25 followed the pattern "Request plus reason together", while only one had a reason preceding the request.

Dingemanse (2015, 2020) notes that in Siwu, participants make up to three attempts at both recruitment and repair before abandoning the attempt. He suggests this may represent a "rule of three" (or "'three strikes' principle"), where participants balance the competing demands of making robust attempts to resolve a problem versus disrupting the overall flow of the conversation or interaction, and/or the social harmony between both parties more broadly. He notes that the rule of three does not seem to hold for small children; that is, recruitment sequences involving children may involve many more attempts at recruitment than three. Indeed, in the case of an 8-year-old, Marjorie Goodwin (personal communication, February 24, 2026) reports one case of a directive being repeated 38 times. Trying to get children to do things may result in extended directive-response trajectories. This is the case in the interaction that is the subject of this paper.

Homesign

Homesign languages are ways of communicating created by deaf people, with varying levels of contribution by people with whom they regularly interact. Homesign languages emerge where deaf people do not have access to a pre-existing sign language. The most common reason why this occurs is that no such sign language exists or because it is inaccessible to the deaf person for reasons of distance or life circumstances. For example, in Papua New Guinea (PNG), Papua New Guinea Sign Language (PNGSL) is used in small deaf communities in Port Moresby and other PNG cities, in and around deaf schools, including by deaf adults who work and/or live at the school, and/or use the school as a social hub (Reed, 2020; Reed & Rumsey, 2020). I conducted fieldwork in PNG in 2018 and 2026, in Port Moresby and Western Highlands province. Most of the deaf people with whom I worked in the rural Highlands were middle-aged, and had not had the opportunity to access PNGSL-using schools in their youth. They could not access the PNGSL-signing community for reasons of distance and/or family responsibilities. They may also not have particularly wanted to, as like other deaf people living in rural areas worldwide, other forms of belonging (e.g., to family,

church, clan) are more salient to their identity than their deafness. In the absence of exposure to any other sign language, they have developed homesign languages.

Homesign may emerge when a single deaf person is embedded in a community of hearing people (e.g., Goldin-Meadow, 2003; Fusellier-Souza, 2001; Jepson, 1991; Nyst et al., 2012; Reed, 2022; Satyawati et al., 2025). This 'singleton' homesign has been seen as the most canonical homesign type, which is an artefact of it being the main focus of homesign research from the 1970s to the mid-2010s. Homesign may also develop between one or more deaf people in a family setting (e.g., Haviland, 2013; Horton, 2023; Torigoe & Takei, 2002). Scholars may refer to these ways of signing as 'family sign languages' rather than 'family homesign' (e.g., Horton, 2024; Hou, 2016). In both singleton and family cases, what stands out is that homesign is a communicative system that emerges in a small and tight-knit community, regardless of the exact ratio of deaf to hearing people. It is also typically no older than one or two generations.

Much ink has been spilt on attempts to reify a distinction between homesign and other types of sign language and/or to arrive at a definitive sociolinguistic typology of sign languages (e.g., Hou & De Vos, 2022; Moriarty & Hou, 2023; Reed, 2022). The canonical contrast class with homesign is often taken to be deaf community sign languages, used by relatively large deaf communities in urban areas, over multiple generations. These other types of sign language have been referred to as "established" (Goldin-Meadow & Brentari, 2017), but many homesign systems are well-established, too, in the sense that they are firmly embedded in the linguistic repertoires of their users and even have elements of prescriptivism (e.g., German, 2024; Haviland, 2016). I would argue that attempts to differentiate these older sign languages as "named" (Goico & Horton, 2023) also founder, as deaf community sign languages are not necessarily named. For example, New Zealand Sign Language was unnamed as recently as the 1980s, despite existing for a century before that (McKee & McKee, 2000); the same story holds for Auslan (Australian Sign Language). Sign languages that have undergone some intergenerational transmission exhibit different features to homesign (Goldin-Meadow, 2025), but the jury is still out on exactly how this works. For example, Lutzenberger et al. (2023) show how the degree of lexical variation does not correlate with age of sign language (and therefore, depth of intergenerational transmission) (see also Tkachman & Sandler, 2013). Here, I refer to sign languages other than homesign as 'older and/or larger languages', which captures the fact that features not exhibited by homesign may emerge as a result of age (and associated intergenerational transmission) or due to the size of the user community.

Homesign exhibits many structural features found in older and/or larger languages, including using order to mark thematic roles (such as who does what to whom); morphophonology; and the grammatical relation of subject (Brentari & Goldin-Meadow, 2017; Coppola, 2025; Goldin-Meadow, 2025). There are certain structural features found in older and/or larger languages that have not yet been evidenced in homesign,

like agent-backgrounding (similar to passive constructions) (Rissman et al., 2020). Homesigners exhibit the full suite of interactional repair types present in other languages (both spoken and signed) (Safar & de Vos, 2022).[1] They also regularly backchannel during conversation; that is, they regularly perform listener behaviour like nodding, smiling or frowning that indicates recipiency but does not seek to take the conversational floor (Reed et al., 2025). Homesigners also perform various social actions using their languages, including making requests, making comments on things, telling stories, talking about talking, and self-talk (Goldin-Meadow, 1993; Goldin-Meadow & Mylander, 1984; Green, 2017; Van Deusen-Phillips et al., 2001).

Aksen Bilong Kakuyl

Aksen Bilong Kakuyl is a homesign language used in Western Highlands Province, a rural region of PNG. The name translates to "Kakuyl's actions" and is the emic way of referring to the language. Aksen is a Tok Pisin word which denotes signing, gesturing, and movements like waving hands during Christian worship (Reed & Rumsey, 2020). Kakuyl is a man aged in his late 40s at the time of filming in 2018, who is prelingually deaf. He lives in Kailge, a loosely clustered rural community. The local spoken languages are Ku Waru (a dialect of Bo-Ung, a Trans-New-Guinea language) and Tok Pisin (an English-based creole spoken with dialectal variation across PNG). The majority of people living at Kailge are subsistence horticulturalists who supplement their gardening with growing cash crops like coffee and/or occasional paid work including carpentry. For more on the local context, see Merlan & Rumsey (1991).

Kakuyl is the only deaf person at Kailge and has been so for living memory. This mirrors the situation across the Nebilyer valley where Kailge is situated. Deaf people tend to be the only one per family and per community. They do not seek one another out for special connection or friendship; other ways of identifying, like church or clan, are the lodestones of their sociality rather than their deafness (on the notion of deaf sociality, see Friedner, 2015). Kakuyl and all the other deaf people I encountered in the area use ways of communicating that they have devised themselves, with varying levels of input from family and friends. These include signs adapted from local gesture, and iconic signs that are transparent to people from that cultural milieu (e.g., signs that imitate peeling a particular foodstuff to denote that food).

Kakuyl has two houses: one in Kailge and another about an hour's walk away at his traditional clan area, Ukulu Peng. Like many local men, he has constructed both of them (with assistance from friends) from mainly local timber and thatch. He is

[1] When one party in a conversation doesn't understand the other, they will seek to 'repair' by issuing repair initiators. These may be "open" repair initiators, which do not target the source of trouble beyond the entire utterance [e.g., "Huh?"] or they may be "restricted" repair initiators which do target the source of trouble [e.g., "Who did you say is coming?") (Dingemanse & Enfield, 2015; Drew, 1997).

married and shares six children with his wife; she and the children are hearing. He has several siblings and was very close to one brother who was reported to have been an excellent signer. This brother passed away in inter-tribal fighting some years ago. Kakuyl's parents and siblings are or were all hearing and he neither has nor had any deaf relatives. Kakuyl grew up with four close hearing male agemates, two of whom still live in the local area and spend time with Kakuyl on an almost daily basis. The other two have only recently moved away to another local community. Kakuyl's wife maintains a garden which feeds the family and Kakuyl assists in the garden, grows coffee for sale, and occasionally does carpentry work. As a younger man, he spent some time in the faraway city of Lae, working to operate a gate for vehicles.

Kakuyl is at the center or nucleus of a "sign network", in which he is connected to many hearing signers in his local area (Reed, 2019, 2022; Reed & Rumsey, 2020). All adults to whom Kakuyl is closely connected, such as his friends and wife, sign well. Many people at Kailge have some competence in the use of his language by virtue of interacting with him. Kakuyl can metalinguistically identify who he considers to be the more competent signers in his network. In many rural areas across the globe, gesture is considered to be the natural way of communicating with deaf people (see Green, 2024). This is also the local language ideology at Kailge and the Nebilyer valley. This means that wherever he goes, Kakuyl is usually able to approximate some form of communication with anyone. An example of Aksen Bilong Kakuyl can be watched at https://doi.org/10.6084/m9.figshare.31436221.v1 (Reed, 2026a). (This is a small, illustrative excerpt of an open-access recording [Reed et al., 2018a], which is in turn part of an open-access dataset [Reed, 2015] archived with the Pacific and Regional Digital Archive for Research in Endangered Cultures [PARADISEC]; see Data, Code and Materials Availability Statement for further details.)

A Directive-Response Trajectory

The following exchange (Reed et al., 2018b, LWR1-20181116_02-01, 3:30-4:15 and 5:15-6:18) occurred during a field trip in 2018. This was a period in between formal filming sessions, and with parties' consent, I kept the camera rolling during the lunch break. At Kailge, houses are used mainly for sleeping and occasional socializing (if, say, the weather is too poor to sit outside). Cooking is done over a fire outside in the open air, under a shelter, or in a dedicated *haus kuk* (cooking house). At the time of this interaction Kakuyl's wife is outside preparing a lunch of sweet potato and greens, which are typical local staples. The interaction is between Kakuyl and his fourth child of six, Melisa. Melisa is around four years old. Melisa is hearing and has grown up communicating with her father in Aksen Bilong Kakuyl (as well as speaking Ku Waru). The scene begins with Kakuyl, his childhood friend Nikindi, and me (the author) in Kakuyl's house at Ukulu Peng. Kakuyl and I are sitting on the floor, while Nikindi is sitting on the edge of the sleeping platform. I am behind the camera. At one point, Nikindi's child comes to stand by his father, but neither the child nor Nikindi

participates in the interaction.

In this interaction, Kakuyl attempts to direct Melisa to fetch the sweet potato and greens that are ready outside. The interaction is broken into two parts, separated by one minute. The interaction is transcribed at Appendix A; the template and transcription conventions are based on those by Jones (2023). The interaction can also be watched with subtitles at https://doi.org/10.6084/m9.figshare.31568392.v1 (Reed, 2026b). (Again, this is a small, illustrative excerpt of an open-access recording (Reed et al., 2018b), which is in turn part of an open-access dataset [Reed, 2015] archived with the Pacific and Regional Digital Archive for Research in Endangered Cultures [PARADISEC]; see Data, Code and Materials Availability Statement for further details.) The files are open access subject to registering as a user and agreeing to the relevant terms and conditions. A number of topics emerge inductively from the vignette itself: (a) spatial arrangements supportive of communication; (b) attention-getting strategies; (c) prompting; (d) implicit and explicit directives; and finally (e), socialization of children into local cultural norms. In each of the following sections, I briefly review the literature on the topic at hand, and then explore what this case can bring to bear on language socialization in homesign and the properties that homesign languages exhibit.

F-formations

When people intend to interact, they often arrange their bodies in configurations that Kendon (1977, 1985, 1990) called "F-formations".[2] Via these formations, they allow one another mutual, overlapping access to the spaces in front of their bodies where activities occur, such as gestures and manipulation of objects. People sit or stand in particular configurations when they get into F-formations: a group might form a circle, while two people might arrange themselves face to face, side by side, in an L-shape or, particularly in the case of parent-child interaction, in nested configurations (where a child sits in the parent's lap with both facing the same way or is strapped to their back) (De León, 2011; Ochs et al., 2005). At least for sighted people, the participants in F-formation are aware of one another's visual field and therefore aspects of their common ground. F-formations, then, promote common knowledge access and development in conversation.

Mutual co-presence does not necessarily constitute an F-formation. People may sometimes get into particular bodily arrangements due to circumstances rather than interactive intention (e.g., two strangers sitting next to one another on a train). This

[2] The F in F-formation is presumably intended to denote "face" or "facing" (see Kendon, 1985:239; Scheflen & Ashcraft, 1976:107, 204; McDermott & Roth, 1978:338-339). However, not all F-formations are arrangements in which people face one another. This is perhaps why Kendon seems to have preferred to use the term "F"-formation rather than "face" or "facing" in his work.

arrangement might become an F-formation if these strangers strike up a conversation, but it is not simply so by virtue of co-presence. Similarly, two people communicating from far away (e.g., signing, gesturing or speaking loudly across a crowded room) are not in an F-formation. In order to be in an F-formation, the parties must deliberately maintain shared, overlapping access to the areas in front of their bodies (see Ciolek & Kendon, 1980).

Visual access to one another is not necessarily constitutive of an F-formation; rather, what is constitutive of an F-formation is (1) interactive intention and (2) shared, overlapping access to the area in front of each person's body. Certain F-formations afford mutual visual access (e.g., face-to-face), while in others, such as the nested configuration, only one party has visual access to the other. In spoken languages, communication is possible when there is no visual access between interlocutors: speaking on the phone, yelling to another from separate rooms, and spatial arrangements like sitting back to back. In sign languages, however, visual access is essential, to such an extent that sign language has been called a "mono-activity" given the fact that other activities (cooking, cleaning) must be suspended for communication to occur (Morgenstern et al., 2010). In general, signers must have visual access to one another in ways that speakers may have access to, but do not need to. The reliance on mutual gaze in sign language interaction means that signers may find some F-formations less suitable for communication than others, for example, side-by-side and nested configurations.

A related notion to F-formations is that of participation frameworks. A participation framework refers to bodily arrangement as well as participants' orientation to objects in the environment and their roles in an interaction (e.g., speaker, hearer, overhearer, bystander) (Clark, 1996; Goffman, 1981; C. Goodwin & M. H. Goodwin, 2004). An F-formation is thus an element of a participation framework, but a participation framework is more than an F-formation. The affordances of hearing make participation frameworks qualitatively different for deaf and hearing people. A hearing person ('A') will be engaged in a participation framework if somebody speaks to them, even if A does not wish to attend to what was said. To fully exit the participation framework, A will essentially need to get out of earshot. However, in the case of signed languages, if a deaf person wishes to exit the participation framework, they can simply turn away and break visual contact.

The interaction under analysis begins with Kakuyl and Melisa in an L-shaped F-formation (line 1, Appendix A). Kakuyl then asks Melisa if the sweet potato is ready (line 3). Melisa responds that it is in the cooking area (line 4). Kakuyl then goes to ask about the greens but as he begins talking, Melisa breaks the F-formation and gets up to leave. The following interaction ensues.

Table 1. ***Negotiation of F-formations between a deaf adult homesigner and his hearing child.***

Appendix A line	Video still	Description
4		Kakuyl asks Melisa about the readiness of the greens, but she seems to ignore him and gets up to leave.
6		Kakuyl catches Melisa's right wrist as she attempts to leave.

6		Kakuyl places his other hand on Melisa's elbow as she turns towards him.
6		Melisa turns towards Kakuyl and assumes a face-to-face F-formation with him. Kakuyl lets go of her elbow but slides his left hand down from her right wrist, continuing his hold on her, now of her right hand.
7		Kakuyl lets go of Melisa's right hand with his left hand, but reaches his right hand towards her left shoulder. She steps backwards. He nods. Kakuyl reaches his other hand towards Melisa's left side.

7		Melisa moves slightly further backwards, as if trying to withdraw from the F-formation. Kakuyl extends his right hand further to her left side and reaches his left hand back towards her, as if trying to prevent her moving away.
8		Melisa raises both of her arms, trying to avoid Kakuyl's hands and utters *wis!* ('pshaw!', a paralinguistic sound of dismissal or frustration)
8		Melisa successfully emancipates herself from the F-formation, moving towards the curtained-off sleeping platform and cutting out her father from her visual field.

9		Kakuyl uses his right hand to grasp a corner of Melisa's skirt and verbally utters an attention-getting sound, ə ə. In so doing, he inserts himself into the participation framework of Melisa as a hearing person.
9		Melisa turns back to Kakuyl.
10		Melisa turns her body so that she is oriented to Kakuyl in a face-to-face F-formation, while still maintaining some body torque towards the sleeping platform and her hold on the curtain, perhaps signalling a commitment to her 'exit strategy' from the F-formation. She tosses her chin, inviting Kakuyl to talk. Kakuyl releases his hold on her and asks about the readiness of the greens.

Here, we see Kakuyl manipulating and guiding Melisa's whole body into F-formations supportive of visual communication. Kakuyl directs and at times arrests the trajectory of Melisa's body. He uses a vocal cue which Melisa, as a hearing individual, can perceive, but most of his efforts are manual. He uses touch to restrain her and stop her from moving away, and also uses touch to guide her into an F-formation with him. He uses his hands to gently grasp and manipulate various aspects of Melisa's person – her hands, arms and clothes – to shepherd her back into face-to-face engagement. This mirrors an interaction described by Horton et al. (2023) in which Jane, a deaf homesigning adult, physically manipulates her son into a position and associated orientation which accommodates signed communication. Children acquiring a sign language must be socialized into appropriate bodily arrangements for that language.

Molding is a phenomenon in sign language acquisition that entails signing parents physically manipulating children's hands into particular shapes, and directing those shapes into certain movements and onto certain locations, in order to help the child correctly articulate signs (Maestas y Moores, 1980; Morgenstern et al., 2010; Pizer et al., 2011). Because it is not possible to use the hands to manipulate articulators inside the mouth and the throat, molding has hitherto been considered a child language acquisition strategy exclusive to sign languages. However, consider the fact that both signing and speaking adults physically mold their children's *bodies* into F-formations, manipulating them into postures and/or orientations supportive of particular interactions. For example, Burdelski and Cekaite (2020) describe how preschool teachers in Japan and Sweden pull, grip, rotate and shepherd children into F-formations with one another to support particular interactions such as apologies. When considered from the perspective of the whole body, molding becomes a phenomenon common to all humans, regardless of language mode.[3]

In his essay, "On the formation of a visual variety of the human race", deaf scholar Benjamin Bahan (2008) describes how signers arrange themselves in ways to ensure they are "maintaining appropriate visual proxemics" (p. 89), where proxemics is (among other things) the way space is maintained in interaction (Hall, 1963). If two signers are conversing with one another, they are face to face; if three, they make a triangular shape; if four, a circle. As signers come and go from conversations, these shapes emerge and transform in rhythmic and symbiotic ways, always ensuring that signers have visual access to all conversational participants. Understanding the need for certain F-formations that support mutual visual access is part of a deaf way of being in the world (whether intuitive, culturally acquired, or both is a question we will explore in the next section). Kakuyl is socializing Melisa into the appropriate proxemics of signed communication, facilitating her development as a competent user of Aksen Bilong Kakuyl.

[3] I thank John Haviland for this point.

Attention-Getting

In sign language socialization, children must learn that before one can communicate, one has to give visual attention to one's interlocutor (Baker & van den Bogaerde, 1996). Visual attention has a higher functional load in sign languages than spoken languages because without visual access, communication in a (non-tactile) sign language is simply impossible.[4] Hearing children, on the other hand, "can choose not to attend, but they cannot choose not to hear" (Holzrichter & Meier, 1999:26). Deaf adults use a wide variety of strategies to solicit people's attention. These strategies may be used to encourage one's interlocutor to move into an F-formation where participants will share access to the space in front of each other's bodies, or they may be used simply to secure attention, with no expectation that the interlocutor assume an F-formation.

Strategies signers use to get attention include tactile methods like tapping on the other's body, signing in another's peripheral vision to encourage looking (and then repeating what has been said once attention is achieved), waving a hand or object, or causing a salient physical change in the environment (e.g., stomping on the floor, flicking on and off a light switch) (Baker & van den Bogaerde, 1996; Coates & Sutton-Spence, 2001). There are qualitative differences between how hearing parents of deaf children and deaf parents of deaf children solicit attention: in one study, where mothers and children were given a set of toys to interact with, deaf mothers of deaf children were more likely to wave at their children, tap them or tap the floor to get attention, while hearing mothers relied most on presenting objects to try to gain their deaf child's attention (Waxman & Spencer, 1997). The authors hypothesize that the deaf mothers' attention-getting strategies may be better at promoting switching of attention from object to social partner, as opposed to the hearing mothers' preferred strategy, which is more object-focused.

Spencer et al. (1992) looked at maternal behavior during episodes where deaf children were looking at objects. Deaf mothers were much more likely to wait while their children observed an object (essentially, they observed their children observing the object), while hearing mothers were more likely to try to redirect their children's attention to a topic or activity unrelated to the object that the children were looking at. Deaf mothers were more likely to make a relevant response to their children's attention to an object, and were much more likely to do so after the children had finished looking at the object and had looked back to the mother. When hearing mothers did make

[4] The reader may protest that I am pressing a point that it is rather obvious. However, consider the continuing production of movies and TV series that feature sign language, but regularly involve cinematography where the person is signing but the camera only focuses on their face, leaving their hands out of shot, or cuts away altogether (e.g., scenes in the BBC miniseries *Reunion* and the Marvel movie *Hawkeye*). For deaf audiences, watching a TV show or movie that purports to include sign language, but which occasionally makes that sign language visually inaccessible, is disappointing.

relevant responses to the children's object gaze, they were much more likely to do so while the children were still looking at the object, making it unclear whether the children even perceived the response.

Harris and Mohay (1997) found that where deaf mothers do attempt to redirect their child's attention from an object to themselves, they were four times as likely to succeed in eliciting this attentional switch than hearing mothers. Consistent with Waxman and Spencer's (1997) hypothesis, Harris and Mohay found that physical contact was the most common strategy that led to a successful attentional redirection. This success rate may be due to the tactile strategy employed, and/or due to deaf parents tracking their deaf children's attention more closely and targeting the best moment to elicit attention. Deaf infants with deaf parents are particularly sensitive to gaze: in a study of infants aged 7 to 20 months, deaf infants with deaf parents showed significantly higher levels of attunement to gaze and follow-up activity (e.g., turning to a target) when compared to hearing infants with hearing parents (Brooks et al., 2020). One hypothesis is that these deaf infants have developed this sensitivity to gaze in response to their parents' sensitivity to same, and socialization of their children into the significance of gaze.

In sign languages, tapping can have different meanings depending on location, force and repetition. For example, in American Sign Language, tapping the top of the shoulder is a request for attention while tapping the side of the shoulder is a request to move (Baer, 1991 as cited in Mather, 1996). In a study focusing on hearing children, Cekaite (2016) associates touch with seeking compliance, as well as affection and intimacy. In signing communities, touch is certainly associated with these domains, but it is also an unmarked, practical tool in the getting of attention. In tactile signing communities where the central users are deafblind, touch is about observation (e.g., 'seeing' if a friend is eating by reaching out to feel their hands or jaw) and about communication. Newcomers to tactile signing communities, who may have certain normative expectations around touch (e.g., that one doesn't touch strangers, that touch is associated with intimacy, etc.) or even trauma associated with touch, can take some time to adjust to the different normativity around touch in deafblind spaces (Edwards, 2024; for more on tactile communication, see granda & Nuccio, n.d.; Van Der Mark, 2023).

In a corpus study of attention-getting behaviors used between deaf adults and children in a monolingual British Sign Language nursery, Smith and Sutton-Spence (2005) report how carers socialize children into normatively acceptable attention-getting behaviors. For example, when children tapped too hard or in a non-normative place (e.g., the middle of the back), adults took longer to pay attention to the child, implicitly instructing them that the way in which they had attempted to engage attention was normatively unacceptable. This recalls what deaf scholar Patrick Graham (2014) terms an "embodied deaf habitus"; that deaf people, by virtue of a shared culture

and/or shared experiences of inhabiting a visually dominant, silent world, have shared sets of implicit embodied behaviors, such as ways of attention-getting, body postures and facial expressions (see also Bourdieu, 2005 (original 1972); Graham & Tobin, 2020; Mauss, 1973). These may not be open to introspection, but are often noticeably absent in cultural outsiders.

In the directive-response trajectory to be examined here, much of the interaction is taken up with Kakuyl doing a significant amount of work to get Melisa's attention. Table 2 displays some strategies Kakuyl uses.

Table 2. ***Attention-getting strategies used by a deaf adult homesigner.***

Appendix A line	Video still	Description
1		Nudge with elbow and utter ɛ
17		Pull skirt and utter ʃ

34		Touch on belly and utter ɛ ɛ
44		Flick knee with open hand
45		Tap upper arm with back of hand

46		Touch head, utter ɛ ɛ
69		Flick wrist and utter ʃ

What is notable here is the diversity of attention-getting strategies that Kakuyl deploys within a short interaction. This is reminiscent of the diversity of strategies used in the British Sign Language-using nursery in terms of articulator, movement (incorporating force or repetition), whether contact is involved, and location of contact (Smith & Sutton-Spence, 2005). While this single vignette cannot reveal whether these strategies are ad-hoc or conventionalized, this nevertheless may be a window into how Melisa is being socialized into a suite of normatively acceptable, social ways of gaining attention in Aksen Bilong Kakuyl. Similarly, Vic, a child acquiring Zinacantec Family Homesign, has been socialized into "how and when to sign 'hey!'"; his deaf seniors have supported his language socialization in the domain of attention-getting and, more broadly, pragmatics (Haviland, 2022).

Despite the fact that Kakuyl did not receive input in an established sign language with associated, embodied, deaf cultural norms of attention-getting, he nevertheless deploys a diverse range of attention-getting strategies to achieve his goals. According to Waxman and Spencer (1997), deaf parents' attention-getting strategies "appear to be transmitted culturally". In the case of Kakuyl, some strategies he uses are shared by his wider community (e.g., uttering ʃ, a voiceless postalveolar fricative, which he may have acquired by observing the mouth position of hearing people making this sound).

Others, like tapping, are strategies used by visual communicators the world over. They cannot have been transmitted to Kakuyl culturally given he has had very little exposure to other deaf people in his life. Rather, Kakuyl's attention-getting practices seem to have emerged convergently with other deaf people's as a result of his experience of the world as a visual and tactile communicator. These practices are not necessarily dependent on cultural transmission; that is, transmitted through participation or immersion in a pre-existing deaf culture.[5]

Prompting

Prompting is a phenomenon where adults direct children to repeat what the adult has said or otherwise instruct the child in what to say (Demuth, 1986; Moore, 2011). Prompting has mainly been investigated by linguistic anthropologists, especially with reference to how it is used to socialize children into particular norms of the culture at hand. For example, Kaluli parents use prompting to inculcate assertiveness in their children (Schieffelin, 1990). Mexicano adults socialize children into local teasing routines via prompting (Eisenberg, 1986). Rumsey (2015, 2020) explores how Ku Waru people use prompting to socialize children into locally appropriate ways of acting and feeling. Prompting can also include an element of language instruction (so, language instruction via language, as opposed to social instruction via language). For example, if Kwara'ae children cannot reproduce the sentence that their parent prompts them to repeat, the parent will break the sentence down into smaller chunks and/or correct mispronunciation (Watson-Gegeo & Gegeo, 1986). Ku Waru parents use prompting to support the acquisition of the ergative marker (Rumsey et al., 2013). Schieffelin (1979) reports that around one quarter of the uses the prompting frame ɛlɛma in her corpus of Kaluli were to correct the (lexical, grammatical or social) form of the child's utterance.

Compared to the body of work on prompting in spoken languages, prompting in sign languages is under-explored. Existing research falls into two domains: the use of prompting as a strategy for children with communicative disorders to acquire a sign system[6], and the use of repetition or imitation in by deaf parents of deaf children who

[5] For other candidates for convergent evolution, see Dingemanse et al. (2013) on the open repair initiator *huh?* and Dingemanse et al. (2022) on continuers like *mm* and *mmhm*.

[6] A sign system is a constructed set of manual signs whose purpose is to serve as a communication aide for nonverbal and/or intellectually disabled people. The creators of sign systems often borrowed signs from local full sign languages. Examples include Signing (or Signed) Exact English (SEE) and SimCom (which borrowed signs from American Sign Language), Makaton (which borrowed signs from British Sign Language) and Australasian Signed English and Melanesian Sign Language (used in Papua New Guinea) which borrowed signs from Auslan. Sign systems are still used widely in deaf education in the United States, Australia and Papua New Guinea, among other places, but for deaf children, they are not sufficient to support language development; rather, deaf children must be given access to natural sign languages in order to prevent language deprivation (see Lee et al., 2026; Scott & Henner, 2021).

are acquiring a sign language. In terms of the former domain, this work focuses on the use of prompts by teachers or other instructors to encourage children to produce signs. This may take the form of molding the child's own hands to produce the sign (including partially, by the teacher or instructor shaping the child's hands into the correct handshape but relying them to then produce the correct movement) or the instructor demonstrating the sign (either fully or partially, by producing the handshape but not the movement) and waiting for the child to repeat (Carr & Kologinsky, 1983; Iacono & Parsons, 1986; Schaeffer, 1978).

In the latter domain, Pizer et al. (2011) looked at child-directed signing in American Sign Language, analyzing a corpus of deaf mother-deaf child interaction. The children were between 9 and 24 months. During one session, 59% of the mother's repeated signs were followed by the child imitating the mother. The authors hypothesize that repetition is used to prompt the child to copy the sign. Maestas y Moores (1982) describes strategies used by deaf parents in communicating with their deaf infants 6 months and younger, including molding the infants' hands and engaging in repetition. It is not clear what responses to their moldings and repetitions the parents were targeting, but it is likely they were not soliciting any response other than general engagement, given the very young age of the infants. Caselli (1983) analyzed longitudinal video recordings of deaf children acquiring Italian Sign Language and American Sign Language and describes instances of children imitating their parents' sign productions. Haviland (2016) describes an instance in which a deaf mother "ventriloquates" a sign phrase by using her son's hands to sign it, which Haviland analyzes as a type of molding. The son then repeated a version of his mother's utterance. Molding of children's hands is also used in child-directed signing in Kata Kolok, a village sign language of Indonesia (Lutzenberger, 2024).

By way of background, the Aksen Bilong Kakuyl sign SWEET-POTATO-1 is produced with two fists in neutral space in front of the body, palm sides facing down. They then move 90 degrees away from one another, and the sign ends with both fists now with palm sides facing one another (Figure 1; see also lines 21 and 24, Appendix A). This sign is based on the action of snapping a roasted sweet potato in half in order to eat it. (There is a second, alternative sign also used to refer to sweet potatoes, SWEET-POTATO-2, in which a single fist is brought to the mouth, and sometimes biting is enacted. This is based on the action of holding half of a sweet potato and bringing it to the mouth to bite and eat.) COOK is produced with hands palm up in front of the body. They are then moved up and down vertically (see lines 23 and 25, Appendix A). The sign has a mouth action component, ʙ (a voiced bilabial trill), which may be omitted. (On mouth actions in sign languages, see Boyes Braem & Sutton-Spence, 2001 and Bisnath, 2024.)



Figure 1. ***SWEET-POTATO-1***

In the transcript at Appendix A, lines 1-30 are taken up with Kakuyl attempting to compel Melisa to attend to him and/or move into an F-formation with him, and Kakuyl inquiring as to the readiness of the food. At line 31, Kakuyl takes a different tack. The interaction proceeds as follows:

Table 3. ***Prompting by a deaf adult homesigner to his child.***

Appendix A line	Video still	Description
21 & 22		After successfully engaging Melisa in an F-formation, Kakuyl holds his hands in the initial posture of SWEET-POTATO-1 with his mouth open. Melisa's hands are in a palm-up formation, which may be the initial phase of COOK, or may be a neutral position.

21 & 22		Kakuyl completes the articulation of SWEET-POTATO-1, timing it with closing his mouth. Melisa looks at his hands.
23 & 24		Melisa begins to sign SWEET-POTATO-1, seemingly repeating after Kakuyl, also with an open mouth. Kakuyl moves his hands to the initial phase of COOK.
23 & 24		Melisa brings the SWEET-POTATO-1 formation to her mouth, while Kakuyl produces COOK with both manual and oral components.
23 & 24		Melisa completes the production of SWEET-POTATO-1, with her mouth now closed. Kakuyl nods and continues to hold his hands in COOK.

25 & 26		Melisa signs COOK with both manual and oral components. Kakuyl repeats COOK with both manual and oral components.
25 & 26		Melisa completes her production of COOK while Kakuyl shifts to producing NICE. Kakuyl nods.

One interpretation of this sequence is that Kakuyl is prompting Melisa to produce two words: SWEET-POTATO-1 and COOK. His utterances could be said to be prompts because he holds both of the signs until Melisa repeats the signs after him. That is, he is satisfied with a response in the form of a repeat of his utterance. In addition, each time Melisa repeats the prompt, Kakuyl nods in possible approval of her response. In spoken languages, prompting routines may be marked by verbs like "say…", intonation contours, and/or adverbs. Kakuyl produces the utterance he wishes Melisa to copy with a particular type of (visual) intonation or prosody; namely, his signs are slowed down and deliberate. This may be a window into how Kakuyl has supported his children to acquire his system, by encouraging them to repeat after him, prompting those repeats with a particular intonational or prosodic contour of his sign phrase. Indeed, prompting is a widespread strategy in child language acquisition and socialization in the wider Ku Waru-speaking at Kailge (Rumsey, 2015, 2020).

Interestingly, in other recordings made of conversations between Kakuyl and his young children and/ other more novice signers – as well as in my own conversations with Kakuyl, and being a novice user of Aksen Bilong Kakuyl myself (albeit a fluent Auslan signer) – Kakuyl often repeats the signs his interlocutors produce. Partial or full repeats of the previous speaker/ signer's turn (or 'other-repetition') fulfils sometimes seemingly contradictory functions in languages, being used as requests for repair as well as indications of understanding. They can also be used to express stance towards and evaluation of the previous utterance (Norrick, 1987; Rossi, 2020; Tannen, 1987; inter alia). Kakuyl appears to mainly use other-repetition with novice signers

rather than experts, meaning that it may be a way in which he seeks to support language acquisition, rather than other-repetition being a backchannelling strategy used with all interlocutors. Kakuyl's repetitions of other's utterances may be intended to subtly correct their form, or to express encouragement to his interlocutor that they were understood and that the conversation can progress. Taken together, these observations suggest that Kakuyl engages in both prompting and other metacommunicative strategies that target both sign form and sign discourse.

Although Aksen Bilong Kakuyl is only one generation old, it is not the case that 'anything goes'. There are standards of form: signs are produced in certain ways, and not in others. This resembles normativity found by Haviland (2016) in sign form in the Zinacantec Family Homesign-using community, where family members correct one another in terms of their sign production. They also engage in metalinguistic discourse about the 'right' way to sign (German, 2024). Singleton et al. (1993) also report a child homesigner correcting homesign utterances made by his hearing sibling, while Reed (2020) documents a metacommunicative sign used in the PNGSL-signing community (all of whose members were homesigners before entering school and gaining exposure to PNGSL, which sometimes did not occur until adulthood). A prompt is metacommunicative because it takes as its object another piece of communication; when one prompts an utterance, one is communicating about communication. This, then, is further evidence of the early appearance of metacommunication in language emergence, as well as evidence that prompting could well exist as a strategy to support child language acquisition, even in very young and/or small languages like homesign.

Implicit and Explicit Directives

In lines 1-30 of Appendix A, Kakuyl has asked at least seven times if the various components of the meal are cooked and Melisa has responded each time indicating that they are. At lines 31 and 32, the following moves occur (Figure 2). I will take as a starting point that this is a directive: that by issuing this communicative action, Kakuyl is trying to get Melisa to do something. It is on-record, where an on-record move is one that "ask[s] for or otherwise overtly signals the need for a target action" (Floyd, 2020:56). The question is: what was or were Kakuyl's goal/s in lines 1-30 or, looked at differently, what response/s was he prepared to accept as appropriate? My claim is that Kakuyl's utterances in the early part of the interaction are also felicitously analyzed as directives but unlike lines 31 and 32, which are on-record, direct and explicit, his earlier directives were off-record, indirect and implicit.



		#	%	^
31	Kaku_RH	#HITHER	%HITHER	^SWEET-POTATO
	_Face	#frown----------	%----------^----------	
	_Gaze	#Meli----------	%---------->	
		Bring, bring the sweet potato!		



	#	%	
32	Kaku_RH	#HUNGRY.	%HITHER(forceful)
	_Gaze	own belly----------	%Meli
	_Mouth		%ba bə
	_Face	---------->	
		I'm hungry.	**Bring it!**

Figure 2. Excerpt of Appendix A, lines 31-32

The mere identification of directives in homesign is an interesting finding in and of itself. From the point of view of speech act theory, Levinson (2024) notes that there has been no wide cross-cultural investigation into whether certain speech acts – like Searle's (1975a) directives, declarations, commissives and so on – are universal or not.[7] (Universal tendencies in cross-cultural behavior are being revealed, but not from the point of view of categories like speech acts; rather, from the point of view of certain interactional routines like soliciting assistance, regardless of the form that solicitation takes; see Rossi et al., 2023). Tomasello (2008) posits requesting help,

[7] It may also be that this lack of investigation is because anthropologists such as Rosaldo (1982) quickly realised that Searle's taxonomy did not hold well for other cultures, not least because of its focus on the speaker rather than on the social interaction and wider context as a whole. Therefore, researchers may not see much value in undertaking a cross-cultural investigation of Searle's framework; I thank Mark Dingemanse for this point.

informing for the purpose of help or interest, and sharing attitudes and feelings as three basic motives that underly human communication, potentially universally. Indeed, the relationship between language and action was noted by Malinowski (1946, original 1923) ("…human speech as a mode of action, rather than as a countersign of thought", p. 326) and Bloomfield (1933, section 2.2) (see Korta, 2008 for an interesting investigation of the former). The existence of directives in homesign supports the notion that this type of action – getting others to do things – is one of the most basic in terms of human communication and, indeed, sociality, given its existence at the very earliest stage of language creation.

There are two main ways of taxonomizing directives. The first taxonomy focuses on whether directives can be said to be mitigated or aggravated. Labov and Fanshel (1977) categorize petitions, pleas and suggestions as mitigated requests, and orders, commands and demands as unmitigated or aggravated requests. For them, the category of aggravated directives is defined negatively, i.e., being non-mitigated. They associate reference to needs and abilities as mitigating, and reference to rights and obligations as aggravating. These associations appear to be largely intuitive. Aronsson and Thorell (1999) classify a directive as mitigated if it appeals to positive or negative politeness strategies. Positive politeness appeals to solidarity, while negative politeness taps the desire of a person to not be imposed upon (Brown & Levinson, 1978, 1987). According to Aronsson and Thorell's analysis, a directive employing an endearment term (e.g., "sweetie", "darling") is mitigated with respect to positive politeness, as it evokes solidarity between requestor and requestee. A directive involving conventionally indirect strategies (e.g., using "would you mind…") is mitigated with respect to negative politeness, as it seeks to position the directive as optional, minimizing the imposition on the requestee (see also Aronsson & Cekaite, 2011).

A second taxonomy focuses on the dimension of explicitness/implicitness, directness/indirectness or on-record/off-record (Brown & Levinson, 1978, 1987; Ervin-Tripp, 1976; Floyd et al., 2020; Kendrick & Drew, 2016; Searle, 1975b). In Kendrick and Drew's (2016) formulation, an implicit recruiting move is one where a would-be recruiter issues a nonverbal display of difficulty (e.g., searching behavior; a verbal expression of need, difficulty or discomfort; or a verbal "trouble alert" like 'oh!' or a shriek), that is often followed by someone providing the relevant assistance. An explicit recruiting move is one where a recruiter directly and unambiguously seeks assistance (e.g., "Give me a light", "Help me lift this"). Implicit directives set up an opportunity for the recipient to assist, while explicit directives set up a normative obligation for the recipient to respond (whether with assistance, an excuse, deferment, etc.).

We run into tricky issues when we try to definitively sort particular forms on either side of an implicit/explicit (or indirect/direct, etc.) watershed. For example, Kendrick and Drew (2016) categorize reports of need as a separate practice to requests; reports

of need set up an opportunity (not an obligation) for a recipient of the report to offer to satisfy the need, while a request sets up a normative obligation for a response (see also Kendrick, 2020:99). However, Ervin-Tripp (1976) categories "need statements" as the most "obvious" type of directive, where obviousness is synonymous with on-record status. At the most on-record end of the spectrum, some forms seem to be relatively reliable guides for analysts as to a likely intention behind the utterance (or, looked at differently, what response we predict the issuer of a move will accept as appropriate). For example, cross-linguistically, the imperative mood is a reliable proxy for directive force. However, once we move away from the on-record, explicit pole, form becomes a more unreliable guide as to what a speaker intends by a move (or what response they might accept as appropriate). What precedes and follows the move becomes more important for our analysis.

Consider the following, from an interaction in Lao (Enfield, 2020). A is sitting at B's stall, where B is threading meat onto skewers, preparing to grill them. Enfield (2020:215) suggests that A's utterance can be interpreted as "an oblique way of implying" that A would like some of the skewers to eat.

A:	khùù2	bòò1	piing4	cak2	thùa1
	why	NEG	grill	any	time
	why don't you ever grill any of these				
B:	((no response, continues threading meat onto skewers))				

The obliqueness in this utterance is partly a function of its form. As Enfield points out, the question form can be used to direct attention to a problem that needs solving (here, ungrilled skewers, or more specifically, A's potential hunger), with the hope that this will result in an offer to solve the problem. But whether or not somebody goes on the record or off the record with respect to trying to get someone else to do something is not entirely a function of using a particular form (e.g., an imperative like "open the window!" versus a declarative like "gosh, it's hot in here").

To paraphrase Garfinkel (1964:229, 1967:41), particular directives are not "pre-coded entries on a memory drum" entered either side of a binary implicit/explicit line. No matter how indirectly a directive might seem to be structured, if by that stage of the interaction both parties are aware that the issuer of the directive is seeking its fulfilment, the directive cannot be felicitously said to be off-record. Imagine the previous several minutes of this interaction involved B directly asking A to grill the skewers so B could have some. If B then issued this hint-like utterance, it would be likely to be taken by both parties as a request (said, perhaps, sarcastically) regardless of its oblique form. How we analyze a particular utterance is a function of both form and "substrate" (C. Goodwin, 2013) where the substrate is the previous parts of the interaction, the relationship between the parties, and the wider cultural context in which

the interaction is occurring.

Returning to lines 31 and 32, these are "composite utterance[s]" (Enfield, 2009; see also Engle, 1998) made up of sign, gaze, facial expression and vocal gesture. The multimodal composition is a forceful one. Kakuyl repeats HITHER three times in this turn. He combines his directive to bring the sweet potato with a reason (that he is hungry). He accompanies his utterance with a frown. The final word, HITHER, is expressed with greater velocity than the two previous instances of it, giving an impression of forcefulness. Kakuyl makes a sound that gives an impression of frustration or exasperation. The entire utterance is a collection of explicit, on-record directives, because Kakuyl is unambiguously asking Melisa to do something.

The earlier moves in lines 1-30 are best analyzed as off-record, oblique, indirect attempts to get Melisa to do something, namely, get the food. Two main pieces of evidence support this. Firstly, if line 31 is the first move in a directive-response trajectory, it is somewhat out of place in terms of its forcefulness. Kakuyl gives the impression of exasperation, which seems odd if this is his first attempt to recruit Melisa to get the food. However, if this move in fact follows several other directives which have been ignored, its forcefulness makes more interactional sense. Taken with reference to the interactional substrate, line 31 would seem to be best analyzed as a directive issued mid-way through a directive-response trajectory, not the first directive altogether.

This analysis mirrors studies in other contexts. For example, Aronsson and Cekaite's (2011) "prototypical case" of a directive-response trajectory in their Swedish data is one in which parents deploy various indirect strategies to try to get their children to do things, and then move to on-record directives, including warnings and threats. Similarly, as mentioned in section "Directives and Directive-Response Trajectories", various corpus studies have found that reasons tend to come later in a directive-response trajectory or recruitment sequence (Antaki & Kent, 2012; Baranova & Dingemanse, 2016; Dingemanse, 2020). In line 31, Kakuyl combines his explicit directive with a reason (he is hungry). The presence of the reason lends weight to the claim that lines 31 and 32 are directives that follows several others which have not been responded to appropriately. Indeed, in the wider Ku Waru-speaking community at Kailge, a request is sometimes first framed as an indirect statement (e.g., that one is so thirsty as a request for someone else to buy them a drink; or, in the case of someone offering to give them a particular brand of cell phone, to mention that that cell phone brand is liable to overheat rather than asking outright for the truly desired brand of phone). If the indirect statement is not recognized for what it is – a request – the statement-maker may progress to making a direct request.

Secondly, to hypothesize about Kakuyl's intentions with regard to his own utterances, we can look at what responses he is disposed to accept. That is, we can look at whether

or not Kakuyl accepts Melisa's responses, and take this as a guide as to what action Kakuyl was trying to achieve via his utterances. If Kakuyl's questions about the state of the food are intended to be just that – questions about the state of the food – then he should be satisfied with Melisa's responses about same. But this is not what occurs. Kakuyl continues to repeat himself. He persists in issuing essentially the same question about the readiness of the food, implying that he does not accept Melisa's responses as instances of the action he wants her to perform. Kakuyl's persistence suggests that he is trying to recruit Melisa to perform a different type of action. The action he is most likely pursuing is revealed at line 31, when he goes on record directing Melisa to get the food.

The use of implicit and explicit directives is a form of pragmatic competence. A growing body of work documents homesigners' pragmatic competence, in the domains of narrative (Green, 2017), interactive repair (Horton, 2024; Safar & de Vos, 2022), informational mindreading (Planer & Reed, 2025), backchannelling (Reed et al., 2026) and gaze for interactional purposes (Haviland, 2020; Horton & Waller, 2024). The homesigner Kakuyl can use implicit, off-record strategies to make requests; he is not limited to bald, on-record directives.[8] If Kakuyl is able to use indirectness in the domain of directives, it is likely that indirectness is a general strategy he can draw on in his communication with others (indeed, we will see an exchange in the next section, which involves certain matters being left implicit). Indirectness, then, is a feature of communication that can appear at the very earliest stages of language emergence. It does not require large user communities or multiple generations to develop.

From a child language development perspective, Kakuyl is treating his young daughter as a rational agent capable of making inferences from his implicit directives. He is socializing her into ways of communicating; that communication is used in oblique, indirect ways, as well as more direct ways. (Of note, Kakuyl does not need to have an intention to socialize Melisa in this way in order for this to be the effect; her socialization can be an unintentional by-product of his interaction with her, not necessarily its goal.) This is remarkable, as this language socialization is occurring in a communication system that is only one generation old, and used by a very small community. Many things present in older and/or larger languages have not emerged in Aksen Bilong Kakuyl (e.g., morphological marking of plurals; see Horton et al., 2015). However, implicit directives – and, perhaps, indirectness more generally – have emerged.

[8] Although see here Berman (2014) who problematizes the standing assumption in the literature that direct talk is 'easier' to understand and produce than indirect talk, and – based on fieldwork in the Marshall Islands – shows how children's direct speech is less a developmental feature and more a social act which they use to deliberately index themselves as immature as a form of social status.

Reciprocity

Using both off-record or on-record strategies, until line 46, Kakuyl has been unable to compel Melisa to get the sweet potato. At this point, Kakuyl tries a different strategy (Figure 3).




```
48  Kaku_RH         #POINT:Meli
        _Mouth                                  %GUM
        _Head
        _Face
        _Gaze       #Meli----------------------*%
                    You know your gum?
```




```
49  Kaku_RH         #CUT-YOU-OFF
        _Head       #headshake                  headshake
        _Face       #frown
        _Gaze       #away------------------------->
                    I'm gonna cut you off.
```

Figure 3. Excerpt of Appendix A, lines 48-49

Melisa is chewing gum and Kakuyl tells her that when it comes to gum, he won't give her any money for this, and that she is 'cut off'. (CUT-YOU-OFF is articulated by drawing an imaginary barrier with a flat hand between the signer and whoever they wish to cut off.) Melisa smiles and squeals in frustration and resistance, and tumbles into Kakuyl's lap. Kakuyl laughs. At line 72, he then repeats, smiling, to Melisa that he will stop giving her money to buy gum, and that she is cut off (Figure 4). (MONEY is

expressed by enacting sliding hands into pockets.) The moment is not a harsh scolding; Kakuyl is being playful and jocular. He leaves implicit that because Melisa will not fetch the food, she is not behaving in a spirit of reciprocity, and next time she makes a request of Kakuyl he may not be inclined to oblige.




```
72  Kaku_RH         #POINT:mouth          POINT:self    %MONEY    NEG
        _Head                             headshake
        _Mouth      #GUM
        _Face       #nose wrinkle
        _Gaze       #Meli----------------------------%down------------------------->
                    You know your gum? I won't give you any money.
```




```
73  Kaku_RH         #CUT-YOU-OFF
        _LH         push and hold Meli away with back of hand
        _Gaze       away
                    I'm gonna cut you off!
```



```
                                                    #
75  Kaku_RH         CUT-YOU-OFF                     #
        _LH         push and hold                   #Meli away with back of hand
        _Face       smile                           #
                    I'm gonna cut you off.
```

Figure 4. Excerpt of Appendix A, lines 72-73 and 75

It is not clear whether Melisa made this connection in the moment between her refusal to get the food and her father's statement that he will not give her any more money for gum. Nevertheless, this may be a moment in time of Kakuyl's gradual socialization of Melisa into the cultural norm of reciprocity and the expectation of exchange. Reciprocity characterizes diverse human societies, and language socialization is used the world over to inculcate children in particular into local norms about reciprocity (Berman, 2014, 2019; Schieffelin, 1990; Shohet, 2013; Mauss, 1990 [original 1950]). In PNG and wider Melanesia, reciprocal exchange has been said to be the most foundational cultural principle of the region. Macintyre and Young (1982:207) describe reciprocal exchange as "the woof to the warp of the [Melanesian] social fabric, the means to its cyclical regeneration in time".

Anthropologist Marilyn Strathern (1988) writes about how Hageners (a designation that includes the people at Kailge) say that a significant developmental leap occurs when a child begins to demonstrate awareness in the domain of reciprocity:

> The mind (will, awareness), I was told in Hagen, first becomes visible when a child shows feelings for those related to it and comes to appreciate the interdependence or reciprocity that characterizes social relationships. The relationships always take a particular form. They present themselves initially in a domestic context, for example when the child acknowledges that its mother needs sticks for the fire quite as much as the child needs food to eat. (p. 80)

Hageners (including the people at Kailge) are known for their elaborate ceremonial exchange rituals (A. Strathern, 1971). In the region, there is the expectation that allies recruited for fights will be reciprocally compensated via payments, and that the

recruitment and financial compensation follow prescribed processes of ordering (Merlan & Rumsey 1991; Rumsey, 1986). At Kailge today, marriages and deaths prompt a cycle of exchanges, in which prescribed parties are obligated to give other certain parties pigs or money (for example, upon a person's death, their father's *lain* or kin must provide their mother's *lain* or kin with live pigs, which are then killed, cooked and the meat distributed at a communal feast to the mother's *lain*) (see also M. Strathern, 1972; Merlan, 1986). In more everyday settings, if something is given to another (even a bunch of bananas), the giver may say at the time they want nothing in return. However, later, the giver may recall the gift to the recipient and ask for something reciprocally – even many years later. A general expectation of reciprocity is present in everyday relationships, including that between parents and children.

Aksen Bilong Kakuyl has only existed for one lifetime, yet it is able to be used as a tool to socialize children into this foundational pillar of local culture; namely, reciprocal exchange. Kakuyl is socializing his daughter into appropriate ways of acting, both with him as her parent and more generally, in wider Western Highlands society. He does so with playfulness and gentleness, demonstrating the flexibility of different communicative styles that his language affords. Both Ku Waru, an older spoken language, and Aksen Bilong Kakuyl, a one-generation-old sign language, work together to surround her with opportunities to grow into a competent member of the local culture. The drive to reinforce and transmit local cultural norms transcends modality.

Conclusion

Before formally concluding, it is worth reflecting on the social power and hierarchy inherent in this exchange between Kakuyl and his daughter, and how this may have framed the use of prompts, implicit requests and invoking reciprocity. There are multiple axes at play in both this and other interactions, including deaf/hearing status, parent/child status, and the age of the child. In my ethnographic observations of Kakuyl's daily life, he uses diverse strategies to support communication with interlocutors, seeming to tailor these to the signing capacity of individuals. While this exchange features implicit and indirect ways of communicating, Kakuyl is by no means restricted to these: I have observed him to be immediately direct with other, hearing adults in making requests, and to leave reciprocity unsaid. Overall, this case study as well as these observations suggest that Kakuyl's communicative abilities are able to be tailored to the social relations he has with different people and his assessment of their communicative capacity.

To conclude, then, by looking at a directive-response trajectory between an adult homesigner and his child, this paper has served to enhance the list of capacities that homesigners may possess. Homesigners can deploy directives, which have been posited as one of the most basic and perhaps universal communicative actions in humans. Homesigners can also communicate in indirect and implicit ways. Homesign

could be said to represent the 'core' of human communication: emerging in a single lifetime, it is the heart of what it means to communicate as a human being. If so, passive constructions and morphologically marked plurals – some things not evidenced in homesign – are not 'core', but directives are. Interestingly, indirect and implicit ways of communicating may be too.

Despite having neither access nor connection to a deaf community, the homesigner Kakuyl endeavors to form bodily arrangements with his interlocutor that are supportive of visual communication, as well as deftly and expertly gaining his interlocutor's attention in a variety of ways, both manual and vocal, and incorporating holds, touches, taps and flicks. Some prior work has emphasized the need for deaf children to receive input from deaf cultural insiders in order to develop these skills. The current study suggests that some practices may not need to be culturally transmitted by participation or immersion in a pre-existing deaf culture. Rather, they can emerge as a result of encountering the world as a visual communicator. To the extent that these aspects are then shared by deaf people the world over, this is convergent evolution. In his interaction with his daughter, Kakuyl socializes her into the use of F-formations and attention-getting behaviors that support visual communication. In so doing, he facilitates her development into a competent user of Aksen Bilong Kakuyl, who is appropriately sensitive to the visual needs of her signing interlocutors.

Another way in which Kakuyl scaffolds his daughter's development is through the use of prompting. This study constitutes one of the few investigations of prompting in natural sign languages in the literature. This highlights a fruitful avenue for further research, in particular into the language socialization aspects of prompting in sign languages. Kakuyl may use prompting to support his child to acquire the correct form of his signs. This would provide further evidence of metalinguistic awareness in young and/or small sign languages including homesign, building on work by Haviland (2016), Reed (2020) and German (2024). Planer and Reed (2025) reveal the metacommunicative demands of conversational repair, which is demonstrated in abundance by homesigners, as shown by Safar and de Vos (2022) (see also Dingemanse & Enfield, 2024). Taken together, this emerging corpus of homesign studies suggest that in individual lifetimes, communication and metacommunication are co-emergent properties.

References

Antaki, C., & Kent, A. (2012). Telling people what to do (and, sometimes, why): Contingency, entitlement and explanation in staff requests to adults with intellectual impairments. *Journal of Pragmatics, 44*(6–7), 876–889. https://doi.org/10.1016/j.pragma.2012.03.014

Aronsson, K., & Cekaite, A. (2011). Activity contracts and directives in everyday family politics. *Discourse & Society, 22*(2), 137–154. https://doi.org/10.1177/0957926510392124

Aronsson, K., & Thorell, M. (1999). Family politics in children's play directives. *Journal of Pragmatics, 31*(1), 25–48. https://doi.org/10.1016/S0378-2166(98)00050-2

Baer, A. M. (1991, February). *Tactility in the deaf community* [Paper presentation]. Department of Sign Communication Lecture Series, Gallaudet University, Washington, DC, United States.

Bahan, B. (2008). Upon the formation of a visual variety of the human race. In H.-D. L. Bauman (Ed.), *Open your eyes: Deaf studies talking* (pp. 83–99). University of Minnesota.

Baker, A. E., & van den Bogaerde, B. (1996). Language input and attentional behavior. In C. E. Johnson & J. H. V. Gilbert (Eds.), *Children's Language* (Vol. 9, pp. 221–229). Lawrence Erlbaum Associates.

Baranova, J., & Dingemanse, M. (2016). Reasons for requests. *Discourse Studies, 18*(6), 641–675. https://doi.org/10.1177/1461445616667154

Berman, E. (2014). Negotiating age: Direct speech and the sociolinguistic production of childhood in the Marshall Islands. *Journal of Anthropology 24*(2), 109–132. https://doi.org/10.1111/jola.12044

Berman, E. (2019). *Talking like children: Language and the production of age in the Marshall Islands.* Oxford University Press. https://doi.org/10.1093/oso/9780190876975.001.0001

Bisnath, F. (2024). Mouthing constructions in 37 signed languages: Typology, ecology and ideology. *Journal of Language Contact, 16*(4), 565–614. https://doi.org/10.1163/19552629-01604004

Bloomfield, L. (1933). *Language.* George Allen & Unwin.

Bourdieu, P. (2005). *Outline of a theory of practice* (R. Nice, Trans.). Cambridge University Press. (Original work published 1972)

Boyes Braem, P., & Sutton-Spence, R. (2001). *The hands are the head of the mouth.*

Signum.

Brentari, D., & Goldin-Meadow, S. (2017). Language emergence. *Annual Review of Linguistics, 3*(1), 363–388. https://doi.org/10.1146/annurev-linguistics-011415-040743

Brooks, R., Singleton, J. L., & Meltzoff, A. N. (2020). Enhanced gaze-following behavior in Deaf infants of Deaf parents. *Developmental Science, 23*(2), e12900. https://doi.org/10.1111/desc.12900

Brown, P., & Gaskins, S. (2014). Language acquisition and language socialization. In N. J. Enfield, P. Kockelman, & J. Sidnell (Eds.), *The Cambridge handbook of linguistic anthropology* (pp. 187–226). Cambridge University Press. https://doi.org/10.1017/CBO9781139342872.010

Brown, P., & Levinson, S. (1978). Universals in language usage: Politeness phenomena. In E. N. Goody (Ed.), *Questions and politeness: Strategies in social interaction* (pp. 56–289). Cambridge University Press.

Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage.* Cambridge University Press. https://doi.org/10.1017/cbo9780511813085

Burdelski, M., & Cekaite, A. (2020). Control touch in caregiver—child interaction. In A. Cekaite & L. Mondada (Eds.), *Touch in social interaction* (pp. 103–123). Routledge. https://doi.org/10.4324/9781003026631-5

Carr, E. G., & Kologinsky, E. (1983). Acquisition of sign language by autistic children II: Spontaneity and generalization effects. *Journal of Applied Behavior Analysis, 16*(3), 297–314. https://doi.org/10.1901/jaba.1983.16-297

Caselli, M. C. (1983). Communication to language: Deaf children's and hearing children's development compared. *Sign Language Studies, 39*(1), 113–144. https://doi.org/10.1353/sls.1983.0005

Cekaite, A. (2016). Touch as social control: Haptic organization of attention in adult–child interactions. *Journal of Pragmatics, 92*, 30–42. https://doi.org/10.1016/j.pragma.2015.11.003

Ciolek, T. M., & Kendon, A. (1980). Environment and the spatial arrangement of conversational encounters. *Sociological Inquiry, 50*(3–4), 237–271. https://doi.org/10.1111/j.1475-682X.1980.tb00022.x

Clark, H. H. (1996). *Using language.* Cambridge University Press.

Coates, J., & Sutton-Spence, R. (2001). Turn-taking patterns in deaf conversation. *Journal of Sociolinguistics, 5*(4), 507–529. https://doi.org/10.1111/1467-9481.00162

Coppola, M. (2025). Homesign research, gesture studies, and sign language linguistics: The bigger picture of homesign and homesigners. *Topics in Cognitive Science, 17*(3), 492–507. https://doi.org/10.1111/tops.12766

Craven, A., & Potter, J. (2010). Directives: Entitlement and contingency in action. *Discourse Studies, 12*(4), 419–442. https://doi.org/10.1177/1461445610370126

De León, L. (2011). Language socialization and multiparty participation frameworks. In A. Duranti, E. Ochs, & B. B. Schieffelin (Eds.), *The handbook of language socialization* (pp. 81–111). Wiley. https://doi.org/10.1002/9781444342901.ch4

Demuth, K. (1986). Prompting routines in the language socialization of Basotho children. In B. B. Schieffelin & E. Ochs (Eds.), *Language socialization across cultures* (pp. 51–79). Cambridge University Press. https://doi.org/10.1017/cbo9780511620898.003

Dingemanse, M. (2015). Other-initiated repair in Siwu. *Open Linguistics, 1*(1), 232–255. https://doi.org/10.1515/opli-2015-0001

Dingemanse, M. (2020). Recruiting assistance and collaboration: A West-African corpus study. In S. Floyd, G. Rossi, & N. J. Enfield (Eds.), *Getting others to do things: A pragmatic typology of recruitments* (pp. 369–421). Language Science Press. https://doi.org/10.5281/zenodo.4018388

Dingemanse, M., & Enfield, N. J. (2015). Other-initiated repair across languages: Towards a typology of conversational structures. *Open Linguistics, 1*(1), 96–118. https://doi.org/10.2478/opli-2014-0007

Dingemanse, M., & Enfield, N. J. (2024). Interactive repair and the foundations of language. *Trends in Cognitive Sciences, 28*(1), 30–42. https://doi.org/10.1016/j.tics.2023.09.003

Dingemanse, M., Liesenfeld, A., & Woensdregt, M. (2022). Convergent cultural evolution of continuers (mmhm). In A. Ravignani, R. Asano, D. Valente, F. Ferretti,

S. Hartmann, M. Hayashi, Y. Jadoul, M. Martins, Y. Oseki, E. D. Rodrigues, O. Vasileva, & S. Wacewicz (Eds.), *The evolution of language: Proceedings of the Joint Conference on Language Evolution* (JCoLE) (pp. 160–167). Joint Conference on Language Evolution (JCoLE). https://doi.org/10.17605/OSF.IO/V6KFN

Dingemanse, M., Torreira, F., & Enfield, N. J. (2013). Is "huh?" a universal word? Conversational infrastructure and the convergent evolution of linguistic items. *PLoS ONE, 8*(11), e78273. https://doi.org/10.1371/journal.pone.0078273

Drew, P. (1997). 'Open' class repair initiators in response to sequential sources of troubles in conversation. *Journal of Pragmatics, 28(*1), 69–101. https://doi.org/10.1016/S0378-2166(97)89759-7

Edwards, T. (2024). *Going tactile: Life at the limits of language.* Oxford University Press. https://doi.org/10.1093/oso/9780197778029.001.0001

Eisenberg, A. R. (1986). Teasing: Verbal play in two Mexicano homes. In B. B. Schieffelin & E. Ochs (Eds.), *Language socialization across cultures* (pp. 182–198). Cambridge University Press. https://doi.org/10.1017/cbo9780511620898.009

ELAN (Version 6.7) [Computer software]. (2023). Nijmegen: Max Planck Institute for Psycholinguistics, The Language Archive. https://archive.mpi.nl/tla/elan

Enfield, N. J. (2009). *The anatomy of meaning: Speech, gesture, and composite utterances.* Cambridge University Press. https://doi.org/10.1017/cbo9780511576737

Enfield, N. J. (2020). Recruitments in Lao. In S. Floyd, G. Rossi, & N. J. Enfield (Eds.), *Getting others to do things: A pragmatic typology of recruitments* (pp. 203–229). Language Science Press. https://doi.org/10.5281/zenodo.4018380

Enfield, N. J., & Sidnell, J. (2017). On the concept of action in the study of interaction. *Discourse Studies, 19*(5), 515–535. https://doi.org/10.1177/1461445617730235

Engle, R.A. (1998). Not channels but composite signals: Speech, gesture, diagrams and object demonstrations are integrated in multimodal explanations. In M. A. Gernsbacher & S. J. Derry (Eds.), *Proceedings of the twentieth annual conference of the Cognitive Science Society* (pp. 321–326). Routledge. https://doi.org/10.4324/9781315782416-65

Ervin-Tripp, S. (1976). Is Sybil there? The structure of some American English directives. *Language in Society, 5*, 25–66. https://doi.org/10.1017/S0047404500006849

Floyd, S. (2020). Getting others to do things in the Cha'palaa language of Ecuador. In S. Floyd, G. Rossi, & N. J. Enfield (Eds.), *Getting others to do things: A pragmatic typology of recruitments* (pp. 51–92). Language Science Press. https://doi.org/10.5281/zenodo.4018374

Floyd, S., Rossi, G., & Enfield, N. J. (2020). *Getting others to do things: A pragmatic typology of recruitments.* Language Science Press. https://doi.org/10.5281/zenodo.4017493

Friedner, M. (2015). *Valuing deaf worlds in urban India.* Rutgers University Press. https://doi.org/10.36019/9780813570624

Frishberg, N. (1987). Home sign. In J. V. Van Cleve (Ed.), *Gallaudet encyclopedia of deaf people and deafness* (Vol. 3, pp. 128–131). McGraw Hill.

Fusellier-Souza, I. (2001). La création gestuelle des individus sourds isolés: De l'édification conceptuelle et linguistique à la sémiogénèse des langues des signes. *Acquisition et interaction en langue étrangère, 15*, 1–24. https://doi.org/10.4000/aile.537

Garfinkel, H. (1964). Studies of the routine grounds of everyday activities. *Social Problems, 11*(3), 225–250. https://doi.org/10.1525/sp.1964.11.3.03a00020

Garfinkel, H. (1967). *Studies in ethnomethodology.* Prentice-Hall Inc.

German, A. (2024). Metalinguistic discourse in an emerging sign language. *Languages, 9*(7), 240. https://doi.org/10.3390/languages9070240

Goffman, E. (1981). *Forms of talk.* University of Pennsylvania Press.

Goico, S. A. (2024). "She did it!": Meaning-making in interaction between deaf and hearing siblings in Peru. *Language in Society, 54*(2), 265–292. https://doi.org/10.1017/S0047404523000933

Goico, S. A., & Horton, L. (2023). Homesign: Contested issues. *Annual Review of Linguistics, 9*(1), 377–398. https://doi.org/10.1146/annurev-linguistics-030521-060001

Goldin-Meadow, S. (1993). When does gesture become language? A study of gesture

used as a primary communication system by deaf children of hearing parents. In K. R. Gibson & T. Ingold (Eds.), *Tools, language and cognition in human evolution* (pp. 63–85). Cambridge University Press.

Goldin-Meadow, S. (2003). *Resilience of language: What gesture creation in deaf children can tell us about how all children learn language.* Taylor & Francis Group.

Goldin-Meadow, S. (2005). What language creation in the manual modality tells us about the foundations of language. *The Linguistic Review, 22*, 199–225. https://doi.org/10.1002/wcs.1212

Goldin-Meadow, S. (2025). What can language creation tell us about language evolution? *American Psychologist, 80*(9), 1353–1361. https://doi.org/10.1037/amp0001575

Goldin-Meadow, S., & Brentari, D. (2017). Gesture, sign, and language: The coming of age of sign language and gesture studies. *Behavioral and Brain Sciences, 40*, e46. https://doi.org/10.1017/S0140525X15001247

Goldin-Meadow, S., & Mylander, C. (1984). Gestural communication in deaf children: The effects and noneffects of parental input on early language development. *Monographs of the Society for Research in Child Development, 49*(3/4). Serial No. 207. https://doi.org/10.2307/1165838

Goodwin, C. (1979). The interactive construction of a sentence in natural conversation. In G. Psathas (Ed.), *Everyday language: Studies in ethnomethodology* (pp. 97–121). Irvington Publishers.

Goodwin, C. (2013). The co-operative, transformative organization of human action and knowledge. *Journal of Pragmatics, 46*(1), 8–23. https://doi.org/10.1016/j.pragma.2012.09.003

Goodwin, C., & Goodwin, M. H. (2004). Participation. In A. Duranti (Ed.), *A companion to linguistic anthropology* (pp. 222–244). Blackwell Publishing. https://doi.org/10.1002/9780470996522.ch10

Goodwin, M. H. (1980). Directive-response speech sequences in girls' and boys' task activities. In S. McConnell-Ginet, R. Borker, & N. Furman (Eds.), *Women and language in literature and society* (pp. 157–173). Praeger Publishers.

Goodwin, M. H. (1990). *He-said-she-said: Talk as social organization among Black children.* Indiana University Press. https://doi.org/10.2979/1886.0

Goodwin, M. H. (2006). Participation, affect, and trajectory in family directive/response sequences. *Text & Talk, 26*(4–5), 515–543. https://doi.org/10.1515/TEXT.2006.021

Goodwin, M. H., & Cekaite, A. (2014). Orchestrating directive trajectories in communicative projects in family interaction. In P. Drew & E. Couper-Kuhlen (Eds.), *Requesting in social interaction* (Vol. 26, pp. 185–214). John Benjamins Publishing Company. https://doi.org/10.1075/slsi.26.08goo

Goodwin, M. H., & Cekaite, A. (2018). *Embodied family choreography: Practices of control, care, and mundane creativity.* Routledge. https://doi.org/10.4324/9781315207773

Graham, P. J. (2014). *Deaf techniques of the body in the preschool classroom: Preschool as a site for enculturation in deaf culture* [Doctoral dissertation]. The University of Georgia. https://openscholar.uga.edu/record/8982

Graham, P. J., & Tobin, J. J. (2020). The body as a canvas: Developing a deaf bodily habitus in deaf signing preschools. In I. W. Leigh & C. A. O'Brien (Eds.), *Deaf identities: Exploring new frontiers* (pp. 146–161). Oxford University Press. https://doi.org/10.1093/oso/9780190887599.003.0007

granda, aj, & Nuccio, J. (n.d.). *Protactile principles.* https://www.tactilecommunications.org/Documents/PTPrinciplesMoviesFinal.pdf

Green, E. M. (2017). Performing gesture: The pragmatic functions of pantomimic and lexical repertoires in a natural sign narrative. *Gesture, 16*(22), 328–362. https://doi.org/10.1075/gest.16.2.07gre

Green, E. M. (2024). *Making sense: Language, ethics, and understanding in deaf Nepal.* University of California Press. https://doi.org/10.1525/9780520399242

Hall, E. T. (1963). A system for the notation of proxemic behavior. *American Anthropologist, 65*(5), 1003–1026. https://doi.org/10.1525/aa.1963.65.5.02a00020

Harris, M., & Mohay, H. (1997). Learning to look in the right place: A comparison of attentional behavior in deaf children with deaf and hearing mothers. *Journal of Deaf*

Studies and Deaf Education, 2(2), 95–103. https://doi.org/10.1093/oxfordjournals.deafed.a014316

Haviland, J. B. (2013). The emerging grammar of nouns in a first generation sign language: Specification, iconicity, and syntax. *Gesture, 13*(3), 309–353. https://doi.org/10.1075/gest.13.3.04hav

Haviland, J. B. (2016). "But you said 'four sheep' …!": (Sign) language, ideology, and self (esteem) across generations in a Mayan family. *Language & Communication, 46*, 62–94. https://doi.org/10.1016/j.langcom.2015.10.006

Haviland, J. B. (2020). Signs, interaction, coordination, and gaze: Interactive foundations of "Z" — an emerging (sign) language from Chiapas, Mexico. In O. Le Guen, J. Safar, & M. Coppola (Eds.), *Emerging sign languages of the Americas* (pp. 35–96). De Gruyter. https://doi.org/10.1515/9781501504884-002

Haviland, J. B. (2022). How and when to sign "hey!" Socialization into grammar in Z, a 1st generation family sign language from Mexico. *Languages, 7*(2), 80. https://doi.org/10.3390/languages7020080

Holzrichter, A. S., & Meier, R. P. (1999). Child-directed signing in American Sign Language. In C. Chamberlain, J. P. Morford, & R. I. Mayberry (Eds.), *Language acquisition by eye* (pp. 25–40). Erlbaum.

Horton, L. (2023). Representational strategies in shared homesign systems from Nebaj, Guatemala. In O. Le Guen, J. Safar, & M. Coppola (Eds.), *Emerging sign languages of the Americas* (pp. 97–154). De Gruyter Mouton. https://doi.org/10.1515/9781501504884-003

Horton, L. (2024). The division of labor in conversational repair in a family sign language from Guatemala: Who makes it work? *Sign Language Studies, 24*(3), 513–547. https://doi.org/10.1353/sls.2024.a928055

Horton, L., Goldin-Meadow, S., Coppola, M., Senghas, A., & Brentari, D. (2015). Forging a morphological system out of two dimensions: Agentivity and number. *Open Linguistics, 1*(1). https://doi.org/10.1515/opli-2015-0021

Horton, L., Hou, L., German, A., & Singleton, J. (2023). Sign language socialization and participant frameworks in three indigenous Mesoamerican communities. *Research on Children and Social Interaction, 7*(2), 288–319.

https://doi.org/10.1558/rcsi.24314

Horton, L., & Waller, J. (2024). The pragmatics of gaze patterns in a local family sign language from Guatemala. *Languages, 9*(6), 223. https://doi.org/10.3390/languages9060223

Hou, L. (2016). *'Making hands': Family sign languages in the San Juan Quiahije community* [Doctoral dissertation]. University of Texas. http://hdl.handle.net/2152/46879

Hou, L. (2020). Who signs? Language ideologies about deaf and hearing child signers in one family in Mexico. *Sign Language Studies, 20*(4), 664–690. https://doi.org/10.1353/sls.2020.0023

Hou, L., & De Vos, C. (2022). Classifications and typologies: Labeling sign languages and signing communities. *Journal of Sociolinguistics, 26*(1), 118–125. https://doi.org/10.1111/josl.12490

Iacono, T. A., & Parsons, C. L. (1986). A comparison of techniques for teaching signs to intellectually disabled individuals using an alternating treatments design. *Australian Journal of Human Communication Disorders, 14*(2), 23–34. https://doi.org/10.3109/asl2.1986.14.issue-2.02

Jepson, J. (1991). Two sign languages in a single village in India. *Sign Language Studies, 70*(1), 47–59. https://doi.org/10.1353/sls.1991.0016

Jones, A. (2023). *Cross-modal enactment in bilingual Auslan/English conversational narratives* [Master's thesis]. Macquarie University. https://doi.org/10.25949/24590370

Kendon, A. (1977). *Studies in the behavior of social interaction.* Indiana University / The Peter de Ridder Press.

Kendon, A. (1985). Behavioural foundations for the process of frame attunement in face-to-face interaction. In G. P. Ginsburg, M. Brenner, & M. Von Cranach (Eds.), *Discovery strategies in the psychology of action* (pp. 229–253). Academic Press.

Kendon, A. (1990). *Conducting interaction: Patterns of behavior in focused encounters.* Cambridge University Press.

Kendrick, K. H. (2020). Recruitment in English: A quantitative study. In S. Floyd, G.

Rossi, & N. J. Enfield (Eds.), *Getting others to do things: A pragmatic typology of recruitments* (pp. 93–146). Language Science Press. http://doi.org/10.5281/zenodo.4018370

Kendrick, K. H. (2021). The 'Other' side of recruitment: Methods of assistance in social interaction. *Journal of Pragmatics, 178*, 68–82. https://doi.org/10.1016/j.pragma.2021.02.015

Kendrick, K. H., & Drew, P. (2016). Recruitment: Offers, requests, and the organization of assistance in interaction. *Research on Language and Social Interaction, 49*(1), 1–19. https://doi.org/10.1080/08351813.2016.1126436

Korta, K. (2008). Malinowski and pragmatics. *Journal of Pragmatics, 40*(10), 1645–1660. https://doi.org/10.1016/j.pragma.2007.12.006

Labov, W., & Fanshel, D. (1977). *Therapeutic discourse: Psychotherapy as conversation.* Academic Press.

Lee, B., Secora, K., Hall, M. L., Geer, L., Smith, D., & Coppola, M. (2026). Not all signing is sign language: The risks of conflating communication opportunities for deaf and hard-of-hearing children. *Perspectives of the ASHA Special Interest Groups, 11*(2), 411–419. https://doi.org/10.1044/2025_PERSP-25-00178

Levinson, S. C. (2024). *The dark matter of pragmatics: Known unknowns.* Cambridge University Press. https://doi.org/10.1017/9781009489584

Lutzenberger, H. (2024, April 18). *How do you sign to children? A case study of child-directed signing in a Balinese sign language.* [Oral presentation abstract]. Conference of Multimodality in Early Interactions, University of Warwick, Coventry, United Kingdom. https://warwick.ac.uk/fac/sci/psych/research/language/pgrworkshop/abstracts_programme.pdf

Lutzenberger, H., Mudd, K., Stamp, R., & Schembri, A. C. (2023). The social structure of signing communities and lexical variation: A cross-linguistic comparison of three unrelated sign languages. *Glossa, 8*(1). https://doi.org/10.16995/glossa.10229

Macintyre, M., & Young, M. (1982). The persistence of traditional trade and ceremonial exchange in the Massim. In R. J. May & H. Nelson (Eds.), *Melanesia:*

Beyond diversity (pp. 207–222). Research School of Pacific Studies, Australian National University.

Maestas y Moores, J. (1980). Early linguistic environment: Interactions of deaf parents with their infants. *Sign Language Studies, 26*, 1–13. https://doi.org/10.1353/sls.1980.0003

Malinowski, B. (1946). The problem of meaning in primitive languages. In C. K. Ogden & I. A. Richards (Eds.), *The meaning of meaning: A study of the influence of language upon thought and of the science of symbolism* (8th ed., pp. 296–336). Harcourt, Brace & World, Inc. (Original work published 1923) https://pure.mpg.de/rest/items/item_2366948/component/file_2366947/content

Mather, S. M. (1996). Initiation in visually constructed dialogue: Reading books with three- to eight-year-old students who are deaf and hard of hearing. In C. Lucas (Ed.), *Multicultural aspects of sociolinguistics in deaf communities* (pp. 109–131). Gallaudet University Press. https://doi.org/10.2307/j.ctv3006zdp.10

Mauss, M. (with Douglas, M.) (1990). *The gift: The form and reason for exchange in archaic societies* (W. D. Halls, Trans.). Routledge Classics. (Original work published 1950)

Mauss, M. (1973). Techniques of the body. *Economy and Society, 2*(1), 70–88. https://doi.org/10.1080/03085147300000003

McDermott, R. P., & Roth, D. R. (1978). The social organization of behavior: Interactional approaches. *Annual Review of Anthropology, 7*(1), 321–345. https://doi.org/10.1146/annurev.an.07.100178.001541

McKee, R. L., & McKee, D. (2000). Name signs and identity in New Zealand Sign Language. In M. Metzger (Ed.), *Bilingualism and identities in deaf communities: Sociolinguistics in deaf communities* (pp. 3–42). Gallaudet University Press. https://doi.org/10.2307/jj.28174260.6

Merlan, F. (1986). Marriage and the constitution of exchange relations in the Highlands of Papua New Guinea: A comparative study. *The Journal of the Polynesian Society, 97*(4), 409–433.

Merlan, F., & Rumsey, A. (1991). *Ku Waru: Language and segmentary politics in the western Nebilyer valley, Papua New Guinea.* Cambridge University Press.

https://doi.org/10.1017/cbo9780511518218

Moore, L. C. (2011). Language socialization and repetition. In A. Duranti, E. Ochs, & B. B. Schieffelin (Eds.), *The handbook of language socialization* (pp. 209–226). Wiley. https://doi.org/10.1002/9781444342901.ch9

Morgenstern, A., Caët, S., Collombel-Leroy, M., Limousin, F., & Blondel, M. (2010). From gesture to sign and from gesture to word: Pointing in deaf and hearing children. *Gesture, 10*(2–3), 172–202. https://doi.org/10.1075/gest.10.2-3.04mor

Moriarty, E., & Hou, L. (2023). Deaf communities: Constellations, entanglements, and defying classifications. In A. Duranti, R. George & R. Conley Riner (Ed.), *A new companion to linguistic anthropology* (pp. 122–138). Wiley. https://doi.org/10.1002/9781119780830.ch7

Norrick, N. (1987). Functions of repetition in conversation. *Text, 7*(3), 245–264. https://doi.org/10.1515/text.1.1987.7.3.245

Nyst, V., Sylla, K., & Magassouba, M. (2012). Deaf signers in Douentza, a rural area in Mali. In U. Zeshan & C. de Vos (Eds.), *Sign languages in village communities: Anthropological and linguistic insights* (pp. 251–276). Walter de Gruyter and Ishara Press. https://doi.org/10.1515/9781614511496.251

Ochs, E., Solomon, O., & Sterponi, L. (2005). Limitations and transformations of habitus in child-directed communication. *Discourse Studies, 7*(4–5), 547–583. https://doi.org/10.1177/1461445605054406

Pizer, G., Meier, R. P., & Points, K. S. (2011). Child-directed signing as a linguistic register. In R. Channon & H. van der Hulst (Eds.), *Formational units in sign languages.* De Gruyter Mouton. https://doi.org/10.1515/9781614510680.65

Planer, R. J., & Reed, L. W. (2025). Interactive repair in homesign reveals the theory-of-mind abilities that may well have driven language evolution. *Review of Philosophy and Psychology, 16*(4), 1351–1375. https://doi.org/10.1007/s13164-025-00776-x

Reed, L. W. (collector) (2015). Western Highlands Sign Languages. Collection LWR1 at catalog.paradisec.org.au [Open Access]. https://dx.doi.org/10.26278/6S03-BA52

Reed, L. W. (2019). *Sign languages of Western Highlands, Papua New Guinea, and their challenges for sign language typology* [Master's thesis]. Australian National University.

https://doi.org/10.25911/5d69027b5d5f8

Reed, L. W. (2020). "Switching caps": Two ways of communicating in sign in the Port Moresby deaf community, Papua New Guinea. *Asia-Pacific Language Variation, 6*(1), 13—52. https://doi.org/10.1075/aplv.19010.ree

Reed, L. W. (2022). Sign networks: Nucleated network sign languages and rural homesign in Papua New Guinea. *Language in Society, 51*(4), 627–661. https://doi.org/10.1017/S0047404521000798

Reed, L. W. (2026a). Court case (Version 1). figshare. https://doi.org/10.6084/m9.figshare.31436221.v1.

Reed, L. W. (2026b). Sweet potato (Version 1). figshare. https://doi.org/10.6084/m9.figshare.31568392.v1.

Reed, L. W., & Rumsey, A. (2020). Sign languages in Papua New Guinea and the Solomon Islands. In A. Kendon (Ed.), *Sign Language in Papua New Guinea: A primary sign language from the Upper Lagaip Valley, Enga Province* (pp. 141–183). John Benjamins Publishing Company. https://doi.org/10.1075/z.226

Reed, L. W., Safar, J., & Lutzenberger, H. (2025, May 22-23). *A pragmatic typological study of response tokens in five sociolinguistically diverse sign languages.* [Poster session]. LingCologne, University of Cologne, Germany. https://osf.io/gc49r/files/pez3h

Reed, L. W. (collector), Reed, L. W. (researcher), Kulup, K. (participant), & Kaiya, S. (participant) (2018a). Free conversation – community dispute. EAF+XML/MP4/MXF. LWR1-20180408_01 at catalog.paradisec.org.au https://dx.doi.org/10.26278/XCTS-TM92

Reed, L. W. (collector), Reed, L. W. (researcher), Onga, J. (participant), Kulup, K. (participant), Kaiya, S. (participant), Kakuyl, W. (participant), Kakuyl, M. (participant), & Nikindi (participant) (2018b). Free interaction Kakuyl with friends and family. EAF+XML/MP4/MXF. LWR1-20181116_02 at catalog.paradisec.org.au https://dx.doi.org/10.26278/ZGH1-8V97

Rissman, L., Horton, L., Flaherty, M., Senghas, A., Coppola, M., Brentari, D., & Goldin-Meadow, S. (2020). The communicative importance of agent-backgrounding: Evidence from homesign and Nicaraguan Sign Language. *Cognition, 203*, 104332. https://doi.org/10.1016/j.cognition.2020.104332

Rosaldo, M. Z. (1982). The things we do with words: Ilongot speech acts and speech act theory in philosophy. *Language in Society, 11*(2), 203–237. https://doi.org/10.1017/S0047404500009209

Rossi, G. (2014). When do people not use language to make requests? In P. Drew & E. Couper-Kuhlen (Ed.), *Requesting in social interaction* (pp. 303–334). John Benjamins Publishing Company. https://doi.org/10.1075/slsi.26.12ros

Rossi, G. (2020). Other-repetition in conversation across languages: Bringing prosody into pragmatic typology. *Language in Society 49*, 495–520. https://doi.org/10.1017/S0047404520000251

Rossi, G., Dingemanse, M., Floyd, S., Baranova, J., Blythe, J., Kendrick, K. H., Zinken, J., & Enfield, N. J. (2023). Shared cross-cultural principles underlie human prosocial behavior at the smallest scale. *Scientific Reports, 13*(1), 6057. https://doi.org/10.1038/s41598-023-30580-5

Rossi, G., Floyd, S., & Enfield, N. J. (2020). Recruitments and pragmatic typology. In S. Floyd, G. Rossi, & N. J. Enfield (Eds.), *Getting others to do things: A pragmatic typology of recruitments* (pp. 1–23). Language Science Press. https://doi.org/10.5281/zenodo.4018370

Rumsey, A. (1986). Oratory and the politics of metaphor in the New Guinea Highlands. In T. Threadgold, E. A. Grosz, G. Kress, & M. A. K. Halliday (Eds.), *Semiotics – ideology – language* (pp. 283–196). Sydney Association for Studies in Society and Culture.

Rumsey, A. (2015). Language, affect and the inculcation of social norms in the New Guinea Highlands and beyond. *The Australian Journal of Anthropology, 26*(3), 349–364. https://doi.org/10.1111/taja.12157

Rumsey, A. (2020). Reported speech and represented speech. In J. Stanlaw (Ed.), *The international encyclopedia of linguistic anthropology* (pp. 1–12). Wiley. https://doi.org/10.1002/9781118786093.iela0345

Rumsey, A., & Dahmen, J. (2026). Multimodal directive-response trajectories in children's language socialization: An introduction and prospectus [Manuscript under revision]. Australian National University.

Rumsey, A., San Roque, L., & Schieffelin, B. B. (2013). The acquisition of ergative marking in Kaluli, Ku Waru and Duna (Trans New Guinea). In E. L. Bavin & S. Stoll (Eds.), *The acquisition of ergativity* (pp. 133–182). John Benjamins Publishing Company. https://doi.org/10.1075/tilar.9.06rum

Sacks, H. (1995). *Lectures on conversation: Volumes I & II* (G. Jefferson, Ed.). Blackwell Publishing. https://doi.org/10.1002/9781444328301

Safar, J., & de Vos, C. (2022). Pragmatic competence without a language model: Other-Initiated Repair in Balinese homesign. *Journal of Pragmatics, 202*, 105–125. https://doi.org/10.1016/j.pragma.2022.10.017

Satyawati, Astini, N. M. D., Sumarni, N. M., Kanta, K., Safar, J., Lutzenberger, H., Palfreyman, N., & De Vos, C. (2025). The Balinese Homesign Corpus: New insights into corpus development in a rural signing context. *Language Documentation & Conservation, 19*, 305–327. https://hdl.handle.net/10125/74837

Schaeffer, B. (1978). Teaching spontaneous sign language to nonverbal children: Theory and method. *Sign Language Studies, 21*(1), 317–352. https://doi.org/10.1353/sls.1978.0002

Scheflen, A. E., & Ashcraft, N. (1976). *Human territories: How we behave in space-time.* Prentice-Hall Inc.

Schegloff, E. A. (1987). Analyzing single episodes of interaction: An exercise in conversation analysis. *Social Psychology Quarterly, 50*(2), 101–114. https://doi.org/10.2307/2786745

Schieffelin, B. B. (1979). Getting it together: An ethnographic approach to the study of the development of communicative competence. In E. Ochs & B. B. Schieffelin (Eds.), *Developmental pragmatics* (pp. 73–108). Academic Press.

Schieffelin, B. B. (1990). *The give and take of everyday life: Language socialization of Kaluli children.* Cambridge University Press.

Schieffelin, B. B., & Ochs, E. (1986a). Language socialization. *Annual Review of Anthropology, 15,* 163–191. https://doi.org/10.1146/annurev.an.15.100186.001115

Schieffelin, B. B., & Ochs, E. (Eds.). (1986b). *Language socialization across cultures.* Cambridge University Press. https://doi.org/10.1017/CBO9780511620898

Scott, J. A., & Henner, J. (2021). Second verse, same as the first: On the use of signing systems in modern interventions for deaf and hard of hearing children in the USA. *Deafness & Education International, 23*(2), 123–141. https://doi.org/10.1080/14643154.2020.1792071

Searle, J. R. (1975a). A taxonomy of illocutionary acts. *Language, Mind and Knowledge, 7,* 344–369. https://doi.org/10.1017/s0047404500006837

Searle, J. R. (1975b). Indirect speech acts. In P. Cole & J. L. Morgan (Eds.), *Speech acts* (pp. 59–82). Academic Press. https://doi.org/10.1163/9789004368811_004

Shohet, M. (2013). Everyday sacrifice and language socialization in Vietnam: The power of a respect particle. *American Anthropologist, 115*(2), 203–217. https://doi.org/10.1111/aman.12004

Sidnell, J. (2017). Action in interaction is conduct under a description. *Language in Society, 46*(3), 313–337. https://doi.org/10.1017/S0047404517000173

Singleton, J. L., Morford, J. P., & Goldin-Meadow, S. (1993). Once is not enough: Standards of well-formedness in manual communication created over three different timespans. *Language, 69*(4), 683–715. https://doi.org/10.2307/416883

Smith, S., & Sutton-Spence, R. (2005). Adult–child interaction in a BSL nursery — Getting their attention! *Sign Language & Linguistics, 8*(1–2), 131–152. https://doi.org/10.1075/sll.8.1.07smi

Spencer, P. E., Bodner-Johnson, B. A., & Gutfreund, M. K. (1992). Interacting with infants with a hearing loss: What can we learn from mothers who are deaf? *Journal of Early Intervention, 16*(1), 64–78. https://doi.org/10.1177/105381519201600106

Strathern, A. (1971). *The rope of moka: Big-men and ceremonial exchange in Mount Hagen New Guinea.* Cambridge University Press. https://doi.org/10.1017/cbo9780511558160

Strathern, M. (1972). *Women in between: Female roles in a male world: Mount Hagen, New Guinea.* Seminar Press.

Strathern, M. (1988). *The gender of the gift: Problems with women and problems with society in Melanesia.* University of California Press.

https://doi.org/10.1525/california/9780520064232.001.0001

Tannen, D. (1987). Repetition in conversation: Towards a poetics of talk. *Language, 63*(3), 574–605. https://doi.org/10.2307/415006

Tkachman, O., & Sandler, W. (2013). The noun–verb distinction in two young sign languages. *Gesture, 13*(3), 253–286. https://doi.org/10.1075/gest.13.3.02tka

Tomasello, M. (2008). *The origins of human communication.* MIT Press. https://doi.org/10.7551/mitpress/7551.001.0001

Torigoe, T., & Takei, W. (2002). A descriptive analysis of pointing and oral movements in a home sign system. *Sign Language Studies, 2*(3), 281–295. https://doi.org/10.1353/sls.2002.0013

Van Der Mark, L. (2023). Deafblind tactile signers: The dynamics of communication and space. *Sign Language Studies, 23*(4), 500–526. https://doi.org/10.1353/sls.2023.a905537

Van Deusen-Phillips, S. B., Goldin-Meadow, S., & Miller, P. J. (2001). Enacting stories, seeing worlds: Similarities and differences in the cross-cultural narrative development of linguistically isolated deaf children. *Human Development, 44*(6), 311–336. https://doi.org/10.1159/000046153

Watson-Gegeo, K. A., & Gegeo, D. W. (1986). Calling-out and repeating routines in Kwara'ae children's language socialization. In B. B. Schieffelin & E. Ochs (Eds.), *Language socialization across cultures* (pp. 17–50). Cambridge University Press. https://doi.org/10.1017/cbo9780511620898.002

Waxman, R. P., & Spencer, P. E. (1997). What mothers do to support infant visual attention: Sensitivities to age and hearing status. *Journal of Deaf Studies and Deaf Education, 2*(2), 104–114. https://doi.org/10.1093/oxfordjournals.deafed.a014311

Data, Code and Materials Availability Statement

The data (video recording and transcription using ELAN, 2023) upon which this article is based is Reed, L. W. (collector), Reed, L. W. (researcher), Onga, J. (participant), Kulup, K. (participant), Kaiya, S. (participant), Kakuyl, W. (participant), Kakuyl, M.

(participant), & Nikindi (participant) (2018b). Free interaction Kakuyl with friends and family. EAF+XML/MP4/MXF. LWR1-20181116_02 at catalog.paradisec.org.au https://dx.doi.org/10.26278/ZGH1-8V97T The ELAN transcription leading to the production of the transcript in Appendix A is also available at that link. The relevant timestamps within the file are 3:30-4:15 and 5:15-6:18. These files are archived with the Pacific and Regional Digital Archive for Research in Endangered Cultures (PARADISEC), as part of the corpus collection Reed, L. W. (collector) (2015). Western Highlands Sign Languages. Collection LWR1 at catalog.paradisec.org.au [Open Access] https://dx.doi.org/10.26278/6S03-BA52 The files and wider corpus are open access (publicly available) subject to registering as a user with PARADISEC and agreeing to the relevant terms and conditions.

Ethics Statement

Ethics approval was obtained from the ethics committee of the Australian National University (project number 2018/084). All participants gave informed written consent before taking part in the study. Children provided verbal assent as appropriate.

Acknowledgements

I would like to thank Kakuyl Kulup and the Aksen Bilong Kakuyl-signing community at Kailge; Alan Rumsey, Mark Dingemanse and Martijn Goudbeek for feedback on several drafts, which significantly improved the manuscript; the Body, Language and Socialisation project (Australian Research Council grant number DP220100971) group for feedback and discussions on drafts and transcription design, in particular John Haviland, Aliyah Morgenstern, Lourdes de León, Francesca Merlan, Joseph Iseri and Marjorie (Candy) Goodwin; Joe Blythe, Scott Barnes, and the Macquarie Linguistics Conversation Analysis Lab for discussions and feedback on various iterations of this work and its transcription, and in particular to Ashleigh Jones for sharing her transcription template (see Jones, 2023); Ronald Planer for feedback on drafts and discussions, in particular regarding the development of the section on implicit and explicit directives; and two anonymous reviewers for their valuable feedback, which greatly improved the manuscript. Sections of this paper were presented at the Australian National University Linguistics Seminar series (15 May 2026) and the Symposium on Body, Language and Socialization Across Cultures (30 July 2026), also held at the Australian National University. I thank the audiences for useful feedback received. Any remaining errors are my own. Funding for 2018 fieldwork was provided by a research grant from the Australian Linguistic Society.

Appendix A

Transcription conventions

- This transcription is based on a template by Ashleigh Jones and conventions developed within Jones (2023).
- A subtitled video is available at https://doi.org/10.6084/m9.figshare.31568392.v1 (Reed, 2026a).
- A line is denoted by a number with one or more associated articulator tiers. These tiers should be read simultaneously.
- Only relevant tiers in any given section are transcribed (e.g., gaze is not transcribed in every line, only where it is most interactionally relevant)
- Glosses in ALL-CAPS denote a sign.
- A sign with a colon denotes that the sign is oriented to or displaced in the direction of the area given after the colon, e.g., POINT:self is a point to the self; EXIST:cooking-area is EXIST displaced in the direction of the cooking area
- On the Mouth tier:
    - Words in *italics* are words in spoken Ku Waru. The two words used in this excerpt are:
        - *mol* (NEG) (of note, ending a sentence in mola mol 'or not' is a typical question formation strategy in Ku Waru)
        - *wis* (an interjection of dismissal or frustration, English 'pshaw')
    - ALL-CAPS denote a sign articulated by the mouth (some signs in sign languages have oral components; see Boyes Braem & Sutton-Spence 2001).
    - Lower caps in plain text describes mouth behaviours e.g. bite
- On the Voice tier:
    - Vocalisations are transcribed (broadly) using the International Phonetic Alphabet
    - Other sounds are described within single quotation marks (e.g., 'laugh')
- Each line should be read subsequent to the next, except where brackets [ ] join two lines. This indicates that the tiers within both lines should be read as occurring simultaneously across the lines.
- Dashes -- indicate that the action continues, while --> indicates that it continues past the end of the line. The tier for that articulator in the next line should be read as a continuation of the previous action, not a new instance of it.
- An asterisk * indicates that the action ceases at that point.
- A hashtag #, percentage % or caret ^ indicate the moment of the corresponding screenshot (which is included above the relevant line).
- Bold text indicates a translation.
    - Note that in Aksen Bilong Kakuyl, as in many sign languages, aspect can be expressed by adverbs (e.g., FINISH) as well as by context. (Put very simply, 'aspect' is whether an action is expressed as in progress or as completed - among other things.) It is sometimes unclear what aspect signers intend to convey. In these cases, alternative translations are given (e.g., cooked/cooking).
- Timestamps are given at irregular intervals so as to be maximally non-interruptive to the flow of the transcript. They correspond to the original file, LWR1-20181116_02-01, accessible via Reed et al. (2018b).

Timestamp: 03:31



#

1 Kaku_Voice #ɛ
_Body #nudge Meli with elbow
Hey

2 Meli_Gaze ┌away--Kaku----------

3 Kaku_RH │ SWEET-POTATO-1 SWEET-POTATO-2 FINISH----------
_LH │ SWEET-POTATO-1 FINISH----------
_Mouth └ bite FINISH
Is the sweet potato done?



#



%

4 Meli_RH ┌#POINT:cooking-area
_LH │#FINISH
_Body │ %gets up, goes to leave
│It's done, it's in the cooking area.

5 Kaku_RH │#----------* GREENS
Kaku_LH └#----------*
And the greens?





		#	%hold M elbow--------*^palm faces ground
6	Kaku_RH		^
	_LH	#hold M wrist	^hold M hand---------->




		#	%
7	Kaku_RH	#reach for M shoulder---------->	
	_LH	#--*	%reach for M
	_Head	#nod	




		#	%
8	Meli_Voice	#*wis*	
	_Body	#throws arms up.	%turns away
		Pshaw!	




		#	%
9	Kaku_RH	#reach for M skirt	%grasp M skirt
	_Voice	ə ə	
		Hey	



```
                                    #
10  Meli_Head                       #chin toss
        _Gaze       away----Kaku--------  #------------------------->
                                    What?

11  Kaku_RH         GREENS      OIL         FINISH
        _LH                                 FINISH
        _Mouth                              FINISH
                    Are the greens in oil done?

12  Meli_RH         ┌grab curtain
        _LH         │grab curtain
        _Head       │nod
                    │Yes.
                    │
13  Kaku_RH         │COOK    NEG------------------------------------------------>
        _LH         │COOK    NEG------------------------------------------------>
        _Mouth      └COOK    mol
                    Are they cooking/cooked or not?
```



```
                    #
14  Meli_RH         #(obstructed)
        _LH         #(obstructed)
        _Head       #nod
                    Yes.

15  Kaku_RH         ---------------------------------------------------->
        _LH         ---------------------------------------------------->
        _Head       chin toss
                    What?
```

```
Timestamp:          3:44

16  Meli_RH         COOK     COOK       HITHER            EXIST:cooking area
        _LH         COOK     COOK
        _Mouth      COOK
        _Body                                                        turn away
                    They're cooking/cooked and are coming. They're over there.
```



```
17  Kaku_RH         ┌    #grab and pull M skirt--------%--------------------------->
        _Voice      │∫
                    │Hey
                    │
18  Meli_RH         │                                  %flip away curtain
        _LH         │hold beam-------------------------------------------------->
        _Mouth      │                                  %smile
        _Gaze       │                                  %Kaku--------------------->
        _Body       └foot on platform-----------------%--------------------------->

Timestamp:          3:50

19  Kaku_RH         SWEET-POTATO-1       COOK      NEG       flip curtain off M
        _LH         SWEET-POTATO-1       COOK
        _Mouth      bite                 COOK
                    Is the sweet potato cooking/cooked or not?

20  Meli_Body       step off platform and turn torso towards Kaku
```




```
                    #                %
21  Kaku_RH         ┌#SWEET-POTATO-1---------------%----------------------------->
        _LH         |#SWEET-POTATO-1---------------%----------------------------->
        _Mouth      |#open-------------------------%closed
        _Head       |
                    |The sweet potato
                    |
22  Meli_RH         |#palms up---------------------------------------------------->
        _LH         |#palms up---------------------------------------------------->
        _Gaze       └#Kaku-------------------------#Kaku hands-------------------->
```





```
                    #                %                    ^
23  Kaku_RH         ┌COOK#-------------------%----------------------^-->
        _LH         |COOK#-------------------%----------------------^-->
        _Mouth      |COOK
        _Head       |                                                  nod
                    |is cooking/cooked                                 Uh-huh
                    |
24  Meli_RH         |    #SWEET-POTATO-1-----%bring sign to mouth--*^
        _LH         |    #SWEET-POTATO-1-----%bring sign to mouth--*^
        _Mouth      └    #open---------------%closed
                          The sweet potato
```




25	Meli_RH	#COOK EXIST FINISH
	_LH	#COOK EXIST
	_Mouth	#COOK
		is done cooking.
26	Kaku_RH	#----COOK %NICE------------->
	Kaku_LH	#----COOK %NICE------------->
	_Mouth	COOK %NICE
	_Head	%nod
		is cooking/cooked. **It's nice, uh-huh.**
27	Kaku_Head	nod
		Uh-huh
28	Meli_RH	EXIST FINISH EXIST:cooking-area
	_LH	EXIST FINISH EXIST:cooking-area
		It's there, it's done. It's in the cooking area.
29	Kaku_RH	GREENS COOK NICE
	_LH	COOK NICE
	_Mouth	COOK NICE
	_Face	nose wrinkle
		Are the greens cooked? Are they nice?
30	Meli_RH	NICE EXIST:cooking-area---------->
	_LH	NICE
	_Mouth	NICE
		They're nice and in the cooking area.
Timestamp:		4:02





```
                    #                   %                   ^
31  Kaku_RH         #HITHER             %HITHER             ^SWEET-POTATO
      _Face         #frown--------------%-------------------^--------------------
      _Gaze         #Meli---------------%---------->
                    Bring, bring the sweet potato!
```





```
                    #                   %
32  Kaku_RH         #HUNGRY.            %HITHER(forceful)
      _Gaze         own belly-----------%Meli
      _Mouth                            %ba bə
      _Face         ------------------------------------------------------------>
                    I'm hungry.         Bring it!
```



```
                    #
33  Meli_Gaze       ┌sleeping #platform-------Kaku---------------------------------->
      _Body         │shrug    #
                    │
34  Kaku_RH         │         #taps M on belly     TIME   AFTERNOON/EVENING  HITHER
      _Voice        └   ɛ ɛ                                                  ɜ
                        Hey!                     It's getting late.        Bring it!
```

```
35  Kaku_RH         ┌THITHER
                    │Off you go!
                    │
36  Meli_RH         └HITHER      HITHER
                    It's coming! It's coming!

37  Kaku_Head       dip head
        _Voice      wis
        _Gaze       looks Meli up and down
                    Pshaw!

38  Meli_Body       turns away and climbs onto sleeping platform, out of view

Timestamp:          4:11

39  Kaku_Head              headshake----------------------------*
        _Voice                                                  'chuckle'
        _Face                                    smile
        _Gaze      Meli------------away-----researcher--------------------------->

[60 seconds elapses]

Timestamp:          5:14

40  Meli_Body       emerges from platform, skips, sits cross-legged next to Kaku

41  Meli_RH               touches gum bubble
        _Mouth      blows gum bubble
        _Gaze       Kaku---------------------------------------------------------->

42  Kaku_RH         POINT:self    SWEET-POTATO-1    HUNGRY    HITHER
        _LH                       SWEET-POTATO-1    HUNGRY
        _Face       frown--------------------------------------------->
                    I want sweet potato because I'm hungry. Bring it!

43  Meli_RH         take gum out of mouth      hold gum------------------------>
        _LH                                    hold gum------------------------>
        _Voice      aa
        _Head       tilt head to right.        tilt head to left--------------->
        _Gaze       away----------------------gum---------------------------->

Timestamp:          5:24
```



#

44 Kaku_LH #flick Meli right knee with open hand x 9
Hey



#

45 Kaku_LH #tap Meli right upper arm with back of hand x 5
Hey



#

46 Kaku_LH ┌#touch Meli head
_Voice │#ɛ ɛ
Hey
│
47 Meli_RH │ put gum in mouth
_LH │ put gum in mouch
_Gaze └---------Kaku---------->




```
48  Kaku_RH         #POINT:Meli
        _Mouth                                  %GUM
        _Head
        _Face
        _Gaze       #Meli----------------------*%
                    You know your gum?
```




```
49  Kaku_RH         #CUT-YOU-OFF
        _Head       #headshake                  headshake
        _Face       #frown
        _Gaze       #away-------------------------->
                    I'm gonna cut you off.

50  Meli_Voice      n na
        _Body       flops head-first into Kaku's lap
```



```
                                                #
51  Kaku_Face       ┌        smile-----------#-------------------------------------*
        _Gaze       |-----researcher---------#------------------------------------->
                    |
52  Meli_Body       |          ceiling
        _Gaze       └flips body so back is in Kaku's lap and legs are outstretched


53  Kaku_RH         tries to lift Meli
        _LH                      POINT:Meli  POINT:cooking-area  SWEET-POTATO-2  HUNGRY
        _Gaze       Meli
                                 You go get the sweet potato from out there. I'm hungry.

54  Kaku_RH         ┌lifts Meli
        _LH         |grasps Meli's arm and attempts to pull her up
        _Head       |sharp turn to left
        _Face       |frown
                    |
55  Meli_Voice      |myɛ  aa  hm
        _Body       └    goes limp and braces legs against seat to resist being lifted

Timestamp:          5:42

56  Kaku_LH                      POINT:camera
        _Face                    nose wrinkle
        _Gaze       Meli------camera--------Meli
                    See that there?

57  Kaku_LH         ┌attempts to make Meli sit up
        _RH         |attempts to make Meli sit up
                    |
58  Meli_Voice      |     ña   na   na
        _Body       └continues to resist by going limp and bracing legs against seat
```



```
59  Meli_Voice      ┌#hn   hn   n
        _Gaze       |#Kaku-------------------------away-----------------Kaku-------->
        _Body       |#lies fully flat in Kaku's lap
                    |
60  Kaku_RH         |                                attempt to lift Meli
        _LH         |                                attempt to lift Meli
        _Head       |                                nod
        _Face       |#smile------------------------neutral--------------frown
        _Gaze       └#Meli-------------------------away-----------------Meli

Timestamp:          5:51

61  Kaku_RH         under Meli's body
        _LH         HUNGRY      SWEET-POTATO-2  HITHER       RAIN
        _Mouth                                               RAIN
        _Head                                   nod          RAIN         nod
                    I'm hungry. Bring the sweet potato.      It's going to/might rain.

62  Kaku_RH         moves Meli into seated position
        _LH         moves Meli into seated position
        _Head       nod

63  Meli_RH                          HITHER         HITHER
        _Body       sits up in cross-legged position next to Kaku
        _Gaze       away-----------------------------------Kaku---------------------->
                                     It's coming!   It's coming!


64  Kaku_RH         HITHER  SWEET-POTATO-2    POINT:researcher
        _Face       frown------------------------------------------------------------>
        _Gaze       Meli----------------------researcher------Meli----------------->
                    Bring the sweet potato.   See her there?

65  Meli_Mouth      chews gum
        _Gaze       Kaku-----------out front door---------------------------------->
```

```
66  Kaku_LH         ┌push Meli's back
        _Gaze       │back of Meli's head------------------floor------------------>
                    │
67  Meli_RH         │                          slap Kaku's knee
        _Mouth      │chews gum
        _Voice      │                          um
        _Gaze       └------------away---------------------------------------------->
                    ┌
68  Kaku_Gaze       ┌Meli-----------------------------------------------away------>
                    │
69  Meli_Mouth      │                                        blows gum bubble
        _Gaze       │Kaku--------------away---------------------------------------->
        _Body       └                          leans over and puts torso in Kaku's lap

Timestamp:          6:07
```



```
70  Kaku_RH         grasp Meli wrist    #flick Meli wrist x 1     flick Meli wrist x 1
        _Voice                          #∫                        ∫
                    Hey                 Hey                       Hey

71  Meli_Gaze       Kaku
```





```
72  Kaku_RH         #POINT:mouth        POINT:self    %MONEY    NEG
        _Head                           headshake
        _Mouth      #GUM
        _Face       #nose wrinkle
        _Gaze       #Meli---------------------------%down------------------------->
                    You know your gum? I won't give you any money.
```




#

73	Kaku_RH	#CUT-YOU-OFF
	_LH	push and hold Meli away with back of hand
	_Gaze	away
		I'm gonna cut you off!
74	Meli_Voice	a a n
	_Face	smile---------->
	_Body	shakes back and forth, resisting Kaku's hand on her back



#

75	Kaku_RH	CUT-YOU-OFF #
	_LH	push and hold #Meli away with back of hand
	_Face	smile #
		I'm gonna cut you off.
76	Meli_Voice	un
	_Gaze	Kaku
	_Body	lies back into Kaku's lap facing the ceiling

License

Language Development Research (ISSN 2771-7976) is published by TalkBank and the Carnegie Mellon University Library Publishing Service. Copyright © 2026 The Author(s). This work is distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 International license (https://creativecommons.org/licenses/by-nc/4.0/), which permits any use, reproduction and distribution of the work for noncommercial purposes without further permission provided the original work is attributed as specified under the terms available via the above link to the Creative Commons website.