"You Can Make Words Mean So Many Different Things": A Study of Homesign

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Recommended Citation
Available at: https://ir.lib.uwo.ca/wordhoard/vol1/iss4/11

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“Writing,” writes Jacques Derrida, “designate[s] not only the physical gestures of literal pictographic or ideographic inscription, but also the totality of what makes it possible... we say ‘writing’ for all that gives rise to an inscription in general” (9). Echoing Derrida’s logic, we ask, how does “speech” designate not only the physiological transubstantiation of oration, but also the deictic, iconic, and marker gestures (homesign) which can give rise to full-blown natural languages—the viva voce of the “voiceless”?¹ Approximately 10% of deaf children are born to deaf parents; without access to the spoken linguistic input surrounding them, they are exposed to and naturally acquire a conventional sign language.² Deaf children³ who are born to hearing parents and not exposed to a conventional sign language still communicate through a gesture system: “homesign” (Goldin-Meadow and Zheng). Extensive study of the complexity of homesign did not occur until the 1970s, driven by the work of Susan Goldin-Meadow and associates. According to Goldin-Meadow, homesign and natural language share many properties, such as morphological structures (Goldin-Meadow et al., “Children”; Gold-
in-Meadow et al., “Silence”), syntactic structures (Goldin-Meadow, “Resilience”; Goldin-Meadow and Zheng), recursion (Goldin-Meadow, “Resilience”), noun-verb distinctions (Goldin-Meadow et al., “Silence”), and foundational predicate frames (Goldin-Meadow, Hearing). Due to these properties, homesign greatly differs from the expressive gestures used in spoken conversation by both developing children and adults. In the philosophical literature, there is significantly less work which addresses the pragmatic and semantic processes of homesign communication. Bermudez’s Thinking without Words (2003) argues that trained bonobos demonstrate the same cognitive and communicative advancements as homesigners. In stark contrast, Begby’s “Language from the Ground Up” (2014) contends that homesign gestures carry semantic content (similar to the signs of any established natural language), notwithstanding their deictic and iconic forms. Given the radical divergence in the work of Bermudez and Begby, this paper focuses on the role of the Gricean Maxims in establishing the norms of homesign and, thus, how homesign gestures carry semantic content. Begby argues that homesign gestures are a “child’s own spontaneous creations, devised in the process of attempting, though often failing, to communicate” (“Language” 7-8). By emphasizing a very specific notion of public conventions and the spontaneous nature of homesign gestures, Begby underestimates how the semantic meaning of homesign is modulated through norms. When a homesigner gestures to an interlocutor, they are constrained by what the interlocutor can understand. Thus, as the gestures of homesign become increasingly arbitrary, norms (established through the Gricean Maxims) become correspondingly more important for successful pragmatic communication.

Homesign gestures are not governed by public conventions; yet, without norms, it would be impossible to communicate through the arbitrary gestures of homesign. To illustrate this point, suppose the lexicon of English (a conventional public language) underwent a “quarter shift”; more precisely, every signifier was randomly assigned to a new signified and referential element. This new mapping would be every bit as arbitrary as English; yet, it would not be conventional (as English is, of course, conventional). In order to communicate with this new linguistic mapping, two people would need the “key” to the quarter shift, allowing mutual understanding. Without norms in this context, there would be no correct answer to the question of which signifier is assigned to which signified and referential element. Because homesign gestures are significantly arbitrary, norms are needed in order to understand how gestures are “tagged” to their correct meanings. For example, Goldin-Meadow et al. note that homesigners use a standard grasping gesture to denote holding objects, including umbrellas or rolled newspapers (―Silence” 36-40). On the first level, this gesture seems entirely iconic, me-
mediated by a similarity with the object it represents. In the same study, Goldin-Meadow defines *iconic* gestures, in part, as stylized pantomimes whose form varies with the intended meaning of each gesture (38). The standard “clenched fist” grasping gesture, however, demonstrates a significant arbitrariness as it is used to represent a broad spectrum of signified and referential elements which do not involve the clenching position, thereby negating any mediation of similarity between sign and object.\(^5\) In the latter context, while negating any mediation of similarity with the object it represents, the standard “clenched fist” grasping gesture is certainly not governed by *public conventions*; yet, norms must be in place for successful communication. The less iconic the homesign gesture, and the more significantly arbitrary, the more Gricean Maxims must be in place to facilitate mutual understanding.

There is an immediately relevant question when one considers the production of a homesign gesture: *What does the interlocutor need from me for successful communication?* In addressing this question, the norms of homesign are established according to the terms of the Gricean Maxims. Suppose you are asked to communicate “hammer” (noun) without the use of a conventional public language.\(^6\) In Grice’s category of *Quantity*, which relates to the quantity of information to be provided, there are two maxims: (1) “Make your contribution as informative as is required (for the current purposes of the exchange)”; and (2) “Do not make your contribution more informative than is required” (“Logic and Conversation” 167-68). Conveniently, as you and your interlocutor are standing in a garage, you point to a hammer. According to Grice’s maxims *Quantity*, you have made your contribution as informative as is required and you have not made your contribution more informative than is required. Following Goldin-Meadow’s et al.’s 1996 classification of children’s homesign gestures, you have produced a *deictic* gesture which maintains a constant kinesic form: deictics are “predominantly [used] to single out objects, people, places, and the like in the surroundings” (“Silence” 38). Next, you are asked to communicate “hammer” (noun) without the use of a conventional public language or a deictic gesture. Still in the garage, you walk over to the tool and place your arm parallel to the hammer’s handle with your clenched fist directly beside the hammer’s head. Again, according to Grice’s maxims of *Quantity*, you have provided the apposite amount of information. Following Goldin-Meadow et al.’s categories in the same 1996 study, you have created a *characterizing* or *iconic* gesture: a stylized pantomime (“Silence” 38). Following the Gricean Maxims, Clark and Wilkes-Gibbs’s “principle of least collaborative effort” (133) dictates that both you and your interlocutor must *mutually accept* that your interlocutor has understood your gesture before any conversation can continue.\(^7\) Thus, along with your communication of “hammer,” you must produce head or hand gestures (e.g., nods and headshakes) to convey
affirmation, negation, or doubt; these are categorized by Goldin-Meadow et al. as marker or modulator gestures (“Silence” 38). The norms of these homesign gestures—pointing (deictic gestures), producing pantomimes (iconic gestures), and making head or hand signs (marker gestures)—are established through the Gricean Maxims, according to the amount of information needed by the interlocutor. Yet, in merely pointing and pantomiming, can these gestures express propositions similar to those expressed in conventional public languages? To address this question, it is necessary to interrogate how the norms of homesign are involved in the processes of single and double displacement; more precisely, I argue that these pragmatic norms must be established for homesign gestures to carry full semantic content.

As previously argued, the less (simply) iconic or deictic a homesign gesture, the more Gricean Maxims must be in place to facilitate mutual understanding. In order to address single displacement and the norms involved in this processes, suppose you and your interlocutor are still standing in the garage, but the hammer is not present. You are now asked to communicate “hammer” (noun) without the use of a conventional public language. Following the logic of Begby’s 2014 discussion on pointing gestures, you may think that using deictics to refer to a non-present hammer would be either incomprehensible or a violation of communication principles; for, perhaps deictic gestures are constrained to perceptually present objects, people, and places. Yet, you point to the hook on which the hammer was previously hanging. Thus, by pointing to an object (the hook) in your immediate environment (the garage), you have successfully referred to a non-present object (the hammer). According to the principle of least collaborative effort, both you and your interlocutor are responsible for mutually accepting that a perceptually present object refers not merely to its own signified or referential elements, but to another object. As you have provided the apposite amount of information (your interlocutor did not think that your pointing meant to draw attention to your finger or the hook), the conversation can successfully continue with the Gricean Maxims in place. Displaced references, such as this “hammer” gesture, are used robustly in homesign, corresponding to the establishment of norms for communication.

In the processes of double displacement, homesigners’ pragmatic use of complex deictic and iconic gestures relies increasingly on the norms established through Gricean Maxims. As the final scenario, you and your interlocutor are now standing in a kitchen and there is neither a hammer nor a hook present. You are now asked to communicate “hammer” (noun) without the use of a conventional public language. Again, following the logic of Begby’s 2014 discussion on pantomime gestures, you may think that, in the absence of the actual space (the garage) and the present object (the hook), referring to the non-present object (the hammer) would be impossible through only deixis and iconicity. Yet, you develop a plan: first, you will provide the apposite information about the actual space (the garage) as an iconic
projected space; then, within that framework, you will point to the projected location of the present object (the hook) in order to refer to the non-present object (the hammer). If the pragmatic norms of homesign are not adequately established, your interlocutor may think that you mean to draw attention to your finger, the garage, the hook, or another irrelevant reference. Yet, because your gestures were as informative as was required and not more informative than was required, your interlocutor successfully understood your sophisticated gesture—hammer—notwithstanding the lack of mutually salient objects for pointing to or indexing. While single displacement involves reference to an absent object through a pointing gesture in the actual space of a present object, double displacement involves reference to an absent object through synchronized pantomime and pointing in a projected space. In the move from deixis to iconicity to single displacement to double displacement, there is increasingly more and more complex information being transferred from the producer to the receiver of homesign gestures. According to Clark’s principle of least collaborative effort (“Referring” 133), the producer and receiver of homesign mutually minimize the quantity of their gesturing by maximizing their reliance on a common ground for the subsequent level of communication. In each stage of the pragmatic use of homesign, the producer must return to the question, what does the interlocutor need from me for successful communication? Thus, given the sophistication of the references being communicated, there is a growing need for norms to be mutually established by the producer and receiver, especially regarding the apposite amount of information that must be provided. Given the increasing importance on common ground and norms in the progressing stages of communication, Begby’s notion of public convention and comments on the spontaneous nature of homesign seem increasingly misleading.

The producer and receiver of homesign are responsible for mutually accepting that both parties have understood the current gestures before any conversation can continue; thus, the interlocutor’s efficiency in accepting, rejecting, or postponing the presented gestures greatly impacts the success of the communication. Given the opportunity to establish norms, the producer will gauge the efficiency of his/her interlocutor, thereby calibrating the type and amount of semantic elements which must be included in his/her contributions. According to Talmy, language users “treat certain elements and their interrelations as the central identifying core of a particular event or event type (at least for the purposes of communication).” Furthermore, in Talmy’s study, “other elements, which could in principle share an equally intimate involvement in the event, appear in most languages peripheral or incidental.”

Zheng and Goldin-Meadow relate this distinction (central versus peripheral elements) to the non-conventional communication of deaf children, concluding that they “convey each of the elements considered core to motion events involving crossing space” (38) and omit those elements which are con-
I argue that the aforementioned distinction is another example of how Grice’s maxims of *Quantity* drive the semantic content of homesign. In order for the homesigner to make his or her contribution as informative as is required, he or she must include the “elements considered core to motion events”; in order for the homesigner to *not* make his or her contribution more informative than is required, he or she must omit those elements considered “peripheral or incidental.” For example, as a deaf child requested that his experimenter move a toy bag to a particular spot on the floor, he included the following semantic elements: *figure, endpoint, motion, path, manner, place, and origin*. The only semantic element he omitted was a reference to the *agent* (even though he was capable of producing gestures for this component); as the deaf child became more familiar with his experimenter and their mutual understanding of the *agent* was established, this omission became a common pattern (Zheng and Goldin-Meadow 39). Thus, in regard to Grice’s maxims of *Quantity*, the inclusion of the reference to the agent began as a requirement for informative contributions; eventually, the omission of the reference to the agent became a requirement for informative contributions.

Following these arguments, the deaf child of Zheng and Goldin-Meadow’s 2002 study distinguished between caused and spontaneous motions, adjusting his use of semantic elements according to the respective requirements of informative communication. In caused motions, the object is moved along the path; for example, “I slid the puck across the ice.” In describing caused motions, the deaf child predictably omitted the path (as the puck is set on a determined path), and included lexical items for the figure and the endpoint (as the latter element is dependent, for example, on the velocity of the puck). He thus drew attention to the initial and final parts of the motion event. In spontaneous motions, the object moves itself along the path; for example, “I slid across the ice.” In describing spontaneous motions, the homesigner included a lexical item for the path (which is comparatively indeterminate) and incorporated the other components directly into the path gesture itself. He thus drew attention to the medial part of the motion event (49). As noted, the puck is on a determined path in caused motion while the hockey player is on an indeterminate path in spontaneous motion; thus, it is a requirement for informative contributions to omit or include the semantic element of path, respectively. In their gestures, homesigners include the “central identifying core of a particular event” and omit the elements that are “peripheral or incidental”; through their attention to the quantity of information to be provided through semantic elements, deaf children establish the norms of homesign communication.

Notwithstanding the communicative *responsibilities* shared by the producer and receiver of homesign, the producer is greatly constrained by the receiver’s inability to re-
ciprocate in kind through homesign gestures. Regarding the possible arbitrariness of gestures in proportion to the receiver’s comparative incapacities, Goldin-Meadow asserts, “the deaf children must keep their gestures grounded in the here-and-now and relatively transparent, or no one will understand them” (The Resilience of Language 226). While the relationship between producer and receiver is usually formulated as between a deaf child and his or her caregiver, I argue that, in emphasizing the caregiver’s inabilities, Goldin-Meadow underestimates both the morphological and pragmatic insights which a deaf child may gain from his or her caregiver. First, Goldin-Meadow et al. insist that children’s homesign morphemes cannot be traced to their hearing mothers’ gestures (“Children” 87). Yet, as their study develops, Goldin-Meadow et al. concede that the children were “occasionally producing single words [orally] but never combining those words into sentences” (“Children” 90). Zheng and Goldin-Meadow exactly duplicate this concession in their study (29). To clarify the distinction, morphology concerns the form and formation of words, while syntax concerns the arrangement of words into higher units such as phrases, clauses, and sentences. Thus, depending on the single words produced by the child, he or she may have been accessing significant morphological input from his or her caregiver. For example, suppose one of the words produced by the child is the free morpheme “help”; the child could easily be exposed to the processes of derivational inflection, for example, adding the suffix “-er” and thereby changing the grammatical category of the word from a verb (“help”) to a noun (“helper”). As the children could produce single words (probably both free and bound morphemes), Goldin-Meadow et al. considerably underestimate the morphological input that the homesigners may access from their caregivers.

Homesign is defined, in part, by being a “non-shared” form of communication, unlike conventional language systems. Yet, corresponding to my previous argument regarding morphology, I also contend that Goldin-Meadow underestimates the significant insights on communicative pragmatics which a deaf child may gain from his or her caregiver. Goldin-Meadow neglects analysing the items which caregivers make salient for their deaf children and how the proportions of their communication—the quantitative requirements—provide an example or clue to expressive pragmatics. When homesigners communicate with gestures, they often receive speech in return from the hearing individuals within their homes; such speech is typically designed to provide an “oral education” for children. The gestures which co-occur with this speech are, according to Flaherty and Goldin-Meadow, not free to adopt the properties of homesign. Because hearing parents proffer responses in speech which do not include homesign properties, deaf children must interpret complex “cospeech” gestures (Goldin-Meadow and Alibali 272). In response to
the global and unsegmented gestures of their caregivers, homesigners use gestures which are characterized by segmentation and combination. While the hearing caregivers (through the gestures that they produce while they speak) do not provide a mode for the linguistic structures of homesign, they do provide profound insights on the pragmatic necessities of communication. For example, interpreting the rich tapestry of homesign, cospeech, and speech between child and caregiver involves a complex form of Clark’s “mutual acceptance” process, necessitating continuous accepting, rejecting, or postponing of the presented visual (or auditory) input. A child may need to use double displacement in order to respond to a gesture that co-occurs with speech and therefore forms an integrated system with the speech that the deaf child cannot access. Thus, unlike a spoken conversation using a conventional public language, the dialogue between a homesigner and a hearing interlocutor necessarily includes radically heterogeneous forms of communication which cannot be mutually adopted. More precisely, the hearing caregiver addresses the child with an integrated system of gestures and speech, which cannot be appropriated by the child. In the other direction, the child addresses the caregiver with a complex system of homesigns that the caregiver is not free to implement. Thus, the part of Clark’s “common ground” that is established by mutual adoption of language is de facto unavailable to a homesigner and a hearing interlocutor. Overcoming this partial absence of common ground, homesigners must interpersonally cultivate their other responsibilities in the “collaborative process” of communication; the caregivers of deaf children provide a forum, and a possible example, for mastering these communicative pragmatics.

The inability of interlocutors to respond in kind and mutually adopt linguistic properties is developed by Begby as non-bidirectionality: “homesign remains to a large extent a non-bidirectional” (“Language” 23). Returning to the request to communicate “hammer” (noun) while “standing in the kitchen,” I argue that bidirectionality has a profound impact on the arbitrariness of homesign, especially double displacement. The basis of bidirectionality is the ability to understand and adopt an interlocutor’s words, and vice versa; upon hearing a new word, one would be able both to comprehend and use it in one’s own linguistic productions. If there were a high degree of bidirectionality among homesigners, interlocutors would have a much better understanding of each other’s needs, therefore taking significantly less time to establish the norms of pragmatic communication. Considering both Goldin-Meadow’s assertion that deaf children must keep their gestures “grounded in the here-and-now” (The Resilience of Language 226), and my previous arguments on the partial absence of common ground between homesigner and interlocutor, I emphasize that the arbitrariness of homesign gestures is always constrained.
by the interlocutor’s (in)ability to understand. When this limitation on comprehension is lifted, the arbitrariness of homesign can substantially increase; this is the case in both the study of Goldin-Meadow, Mylander, and Franklin regarding Chinese and American homesigners and the development of Nicaraguan Sign Language (ISN).\(^{13}\) In the former study, the authors note “the differences between the children’s systems were no bigger across cultures than within cultures” (87). Thus, given at least a partial lifting of the comprehension constraint, both cultures were similarly efficient in establishing the norms of communication, with neither lagging behind in developing linguistic structures out of their respective input. In regard to the latter development, suppose you produced your doubly displaced sign for “hammer” in a group of fellow homesigners; diachronically, each new cohort of this group would move further from the deictic and iconic significance of the gesture—eventually, it would become entirely symbolic. The development of homesign’s arbitrariness occurs over multiple cohorts, establishing the norms of communication one generation at a time. After the first cohort cultivates a pidgin,\(^{14}\) the younger generation regularizes their received grammatical input. As both the Gricean Maxims and norms of communication are already “in place” for the younger cohort, the pidgin can be elevated to a creole and, eventually, with the full regularization of maxims, norms, and the structures of language, the creole can be elevated to a natural language. Through such systematization and conventionalization of arbitrary gestures, Nicaraguan Sign Language became a full-blown natural language in about 10-15 years.\(^{15}\) When interlocutors can understand and adopt each other’s innovations, their ability to recognize each other’s needs—therefore taking significantly less time to establish the norms of pragmatic communication—is greatly increased; by lifting the limitation on comprehension, the arbitrariness of homesign can dramatically develop.

While there are a substantial number of studies on the properties which homesign shares with natural language—including morphological structures, syntactic structures, recursion, and noun-verb distinctions—there is significantly less work which addresses the pragmatic and semantic processes of homesign communication. I argue that important insights on the gesture system are gained by analysing the role of the Gricean Maxims in establishing the norms of homesign and, thus, how homesign gestures carry semantic content. Homesign gestures are not governed by public conventions; yet, without norms, it would be impossible to communicate through the arbitrary gestures of homesign. According to Clark’s principle of least collaborative effort (“Referring” 133), the producer and receiver of homesign mutually minimize the quantity of their gesturing by maximizing their reliance on a common ground for the subsequent level(s) of communication. In their gestures, homesigners include the “cen-
tral identifying core of a particular event” and omit the elements that are “peripheral or incidental.” Notwithstanding the communicative responsibilities shared by the producer and receiver of homesign, the producer is greatly constrained by the receiver’s inability to reciprocate in kind through homesign gestures. I contend that, in emphasizing the caregiver’s inabilities, Goldin-Meadow underestimates both the morphological and pragmatic insights a deaf child may gain from his or her caregiver. Bidirectionality has a profound impact on the arbitrariness of homesign, especially double displacement. When interlocutors can understand and adopt each other’s innovations, their ability to understand each other’s needs is greatly increased; by lifting the limitation on comprehension, the arbitrariness of homesign can “take flight.”

1 Contra the mistaken notion of deaf children (without a conventional sign language) as “voiceless,” alongside the rich tapestry of homesign, they “occasionally produce single words [orally]” (Goldin-Meadow and Zheng, 29); thus, I later argue that these deaf children may gain significant morphological and pragmatic insights from their caregivers. Furthermore, because homesign is defined, in part, by being a “non-shared” form of communication, the dialogue between a homesigner and a hearing interlocutor necessarily includes radically heterogeneous forms of communication which cannot be mutually adopted (“non-bidirectionality”).

2 Such conventional sign languages include American Sign Language (ASL).

3 The children in many of Goldin-Meadow’s studies are severely (70-90 dB bilateral hearing loss) to profoundly (>90 dB bilateral hearing loss) deaf. For a more detailed account, see page 736 of Hunsicker and Goldin-Meadow’s “Hierarchical Structure.”

4 Also, due to these properties, homesigners greatly differ from the “feral children” who have not participated in any linguistic exchanges in their youth.


7 See pages 115 & 133 of Clark and Wilkes-Gibbs’ “Referring as a Collaborative Process.”

8 According to Clark and Wilkes-Gibbs, a presentation, expansion, or replacement can be judged acceptable or unacceptable by three methods: acceptance, rejection, or postponement (9).

9 See page 22 of Begby, “Language from the Ground Up.”

10 See pages 167-168 of Grice’s 1975 essay “Logic and Conversation.”


13 “ISN” for “Idioma de Signos Nicaragüense.”


Works Cited


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