

SOME PROBLEMS WITH SPOKEN LANGUAGE MODELS
IN THE ANALYSIS OF SIGN LANGUAGES*

Introduction

My paper falls into three parts. The first part deals with the relevance of our interests to the general anthropological enterprise and discusses the rationale behind applying a linguistic analogy to human movement. The second part introduces the study of sign languages and looks at the different roles played by iconicity in spoken language and movement systems. The third part deals with the different role played by lineality.

It is an obvious fact about human beings that we are embodied; that we have bodies and are bodies. The verbs themselves mark both notions of ownership and our sense of being-in-the-world. Our everyday lives are filled by the details of our corporeal existence involving us in a constant labour of eating, washing, walking, dressing, sleeping and so on; yet, despite the overwhelming sense of familiarity which makes such an observation seem trivial, few social theorists have taken the embodiment of persons seriously. As Bryan Turner (1985) has pointed out, for many sociologists and anthropologists, reference to the corporeal nature of human existence raises the spectre of Social Darwinism, biological reductionism or socio-biology. I agree with Turner that these theoretical traditions are indeed analytical cul-de-sacs which have nothing to offer the development of a genuine anthropology or sociology of the body, but these are no longer the only theoretical options. Perhaps because this has appeared to be the case, however, and certainly because of the Cartesian bias against the body in Western culture generally, Turner is correct when he claims that there has been a neglect of the body in social theory. This neglect seems to have led us to a somewhat ethereal conceptualization of our being-in-the-world, in that recent developments in social theory and the philosophy of action which concentrate upon conceptualizations of 'person', the notion of 'self', and the role of social agent and actor, for example, define people in terms of their social location and their beliefs and values, and they remain strangely disembodied.

Turner correctly argues that a comprehensive sociology must be grounded in a recognition of the embodiment of social actors, and his work is an interesting contribution to the kind of work stimulated by Foucault. However, he, like Foucault (1980), Freund (1982), Hudson (1981), Armstrong (1983), Brain (1979) and others, all have one thing

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in common, whether their attention is focused on the sexual body, the medical body, the civilized body or the decorated body, and so forth; this body, albeit a social and cultural one, is a static object.

The work of these authors is of course fascinating, and I in no way minimize their contributions. Such developments should be fruitful, because at the very least, they draw attention to the glaring ethnocentricity which permeates our spoken language centered approaches to systems of meaning. But, in these developments, in addition to agent centered philosophical contributions (cf. Hampshire, 1965), there remains one major lacuna -- the human body as a moving agent in a spatially organized world of meaning.

Unfortunately, and as a result of the same Cartesian legacy, where attention has been paid to a moving body, it appears to have lost its mind! That is, approaches to human movement which have earned the appellation 'non-verbal communication' are, for the most part, behavioristic as well as scientific (cf. Birdwhistell, 1970, Hewes, 1955, and Lomax, 1971). The label 'non-verbal' is problematic because it removes complex symbol systems, as diverse as a Korean mask dance, classical Ballet, Tai-Chi-Chuan, the Post-Tridentine Catholic Mass, American Sign Language and other idioms of dance, liturgical systems, the martial arts, sign languages and greeting systems, from the human powers and capacities for rule-learning, role creating and meaning making which an agent centered theoretical perspective cannot omit. These attributes are considered essential to the notion of person in what Harré (1971) has called an 'anthropomorphic model of man'. In addition, to reduce such systems to 'communication' is to commit a pars pro toto fallacy by mistaking the part for the whole.

My colleagues and I are not advocating an anthropology of human movement separate from or in addition to spoken language centered theories of meaning, but making a case for the inclusion of human action and action sign systems as an integrally related part of meaningful human being-in-the-world. To remove theories of the social body and human action from the realm of spoken language meaning and use can only be reductionist. It perpetuates a Cartesian attitude to mind and body in a period where contemporary philosophy has largely abandoned the distinction as invalid.

Even if that were not the case, as anthropologists, surely we risk a severe clouding of our theoretical spectacles if we fail to recognize that such a mind/body split is a product of Western culture and probably not a philosophy adhered to by most of the people we study.

There is, of course, fascinating anthropological and historical research waiting to be done on the complex reasons for such an absence of the body and human movement in social theory. In part surely a reflection of the Christian tradition in the West wherein the body as flesh is the location of corrupting appetite, sinful desires and private irrationality. We compromise a truly reflexive anthropology

if we fail to take note of our own cultural attitudes and tacit knowledges about these things.

Our approach to the anthropology of human movement systems, or 'action sign systems' (Williams, 1982) seems to me to have two distinct kinds of relationship with spoken language. First, as mentioned above, if enquiry into human action signs is not isolated from the rest of social/cultural anthropological concerns, it cannot therefore usefully be separated from close relationships with spoken language use because, to put it very simply, but not I hope simplistically, human beings as actors speak, and speakers act; that is, both mediums are used to create, articulate and communicate meanings in myriads of different ways, and the same mind that uses language does not somehow switch itself off when it comes to moving. If Hampshire (1965) is correct and "spatial points of reference are human points of application for linguistic predicates", then the 'here and now' and 'there and then' for the mover, no less than for the speaker, are articulated conceptions of space and time. As it is possible to be literate in relation to movement as well as sound, a part of what we mean by description and interpretation involves the writing of the actions in Labanotation.

Second, because of this intimate relationship, and because such enormous and fruitful strides have been made in linguistic theory, the application of an analogy with spoken language has provided a useful means of constructing theoretical models specific to human movement. We are concerned then with the role of analogy in theory building, which, as I hope will become clear, is quite different from directly or naively applying a spoken language model to the medium of movement.

A reasonable misconception of a semasiological approach would be to conclude that we are employing the very logocentrism we wish to surmount by using a linguistic analogy at all. Are we not using a verbal idiom to talk about things that are not verbal and therefore accepting the dominance of verbally formulated perspectives? There are two things to be said in defense of this. First, as Dr. Kaeppler has pointed out (1983), an analogy only makes sense if at least one side of what is being compared is familiar. As we wish to talk with anthropologists and linguists who, in an admittedly logocentric academic culture are most familiar with spoken language forms, the analogy should at least allow us to communicate our ideas about action to our colleagues.

Second, there is no doubt that given the hierarchy of power in American and European academia, the arts are in a somewhat marginal position, and the dance and theater arts in particular are positively teetering on the edge. We recognize that we are in a position of having to legitimize and communicate our enterprise and analogies to spoken language analysis with their attendant notions of rigour, which assist this process. In one sense then we are facing the facts of our inferior status in a logocentric culture, but we do not stop there. If we seem to overemphasize the positive analogy and to neglect the neutral and negative areas also essential to the use of analogy in theory building, then we ask that you see this as part of our historical and anthropological context.

We are not reducing action sign systems to spoken language and saying they are the same, but we are saying that spoken language analyses have provided very fruitful ways to think and to talk about human movement. In any case, as research into the ethnography of speaking and verbal performance forces us to ever widen our conception of what language amounts to, we wonder whether or not there might be closer links between spoken languages and forms of non-discursive, non-vocal performative events than has previously been suspected.

It was with the above-mentioned relationships to spoken language in mind that Williams (1975) developed an approach to the anthropological study of human movement which she chose to call 'semasiology'. The term relates the approach to the semiology of Saussure, yet distinguishes it, precisely because of the reductionism involved in separating human beings from their language use, from semiotic approaches which use the label 'non-verbal' and include the sign functions of animals and machines.

The theory here then is not so much a 'theory of movement' as it is a "theory of culturally and semantically laden actions", couched in theories, that is, in indigenous conceptual models of organization and meaning as they apply to various idioms of dancing, signing, liturgy, greeting systems, the martial arts and so on (Williams, 1982).

It might seem that of all these kinds of action sign systems surely sign languages should fit neatly into a spoken language model; they are, after all, also discursive systems. That they do not is the argument of my paper, but first some historical context is necessary to place my remarks in perspective.

It is not widely known that it is only during the last twenty-eight years, since the pioneering work of one man, that sign languages have come under serious linguistic investigation in this country. It was William Stokoe, who in the late 1950's began to argue for the acceptance of American Sign Language (ASL) as a 'real' language in the full sense of the term. Prior to then such systems were considered to be primitive, pantomimic, and sub-linguistic substitutes for spoken language.

Anthropological interest in them had dwindled since the demise of a 19th century evolutionary theoretical framework, when Tylor, amongst others, showed considerable interest in French, British and Plains Indian sign languages, although he considered them all the same. Tylor's interest lay in the evidence he thought they could provide concerning the origins of spoken language. Within this evolutionary framework, deaf persons were considered primitive because it was assumed they were mentally deficient. Plains Indians, whose signs were collected and described by various explorers, travelers and army captains, were considered to be representatives of an earlier stage of humanity, who in the romantic tradition of the 'noble savage', were deemed, through the use of their sign language at least, to have escaped the consequences of the Tower of Babel. It is interesting to note the

contrast between the negative notion of 'handicap', which intrudes itself upon the sign languages of deaf communities, and the positive romantic notions often associated with that of the Plains Indians. That there is only one universally understood sign language remains a popular misconception even today. In fact, there are many belonging to deaf communities scattered throughout the world for whom movement is the prime medium of thought as well as communication. In addition, other sign languages have developed as the second languages of hearing persons for use in special contexts. Plains Indians, for example, use signing in story-telling as well as for inter-group communication when spoken languages differ. The Walbiri women of central Australia use signing during periods of mourning when speech is prohibited, to give just two examples.

It is probably true to say that it was a widening of the concept of language in the context of monumental developments in descriptive, structural and generative linguistics as well as developments in the philosophy of language which made the inclusion of sign languages a theoretical possibility. In particular, the Saussurian distinction between la langue and la parole enabled the notion of language as a system or code to be separated from its manifestation in speech, thereby also liberating it from restriction to the medium of sound.

Theoretically at least, sign languages (at least those of the deaf) now enjoy full status as 'real' languages. Research on American Sign Language to date has been very much involved in this legitimizing enterprise, and the battle has been more than a theoretical one having had important consequences for the education of deaf children. This status having now been achieved, it may be fruitful at the present time to re-examine some of the dissimilarities between sign languages and spoken languages, instead of continuing to emphasize the similarities. I am going to focus on two of them; iconicity and lineality.

One of the major differences between sign languages and spoken languages is the relative arbitrariness or iconicity of the systems. Unfortunately, notions of legitimacy which accompany the emphasis on arbitrariness as a necessary feature of spoken languages have minimized the contribution this feature makes to sign language structure and semantics, when perhaps it is one of the most interesting and distinct features of many visual symbolic systems.

Given the visual medium of expression, it seems perfectly logical to expect a sign language to utilize the shape and movements of objects in the naming of them. From our contemporary viewpoint we are able to ask why should this make them any the less linguistic? Most objects in the world do not have a sound, therefore the vocal representation of them is necessarily arbitrary. Where they do have sounds, nouns and adjectives are often onomatopoeic, although we know even these to be entirely conventional. The same conventionality occurs with iconic representations in sign languages. Compare, for example, the following so-called iconic signs from American, Chinese, Plains Indian and Danish sign languages (Fig. 1). Not unsurprisingly perhaps to anthropologists, the concept of 'treeness' is just not the same thing in different cultures.



DANISH SIGN LANGUAGE



PLAINS SIGN LANGUAGE



CHINESE SIGN LANGUAGE



AMERICAN SIGN LANGUAGE

The signs for TREE in Danish, Plains Indian, Chinese, and American sign languages.

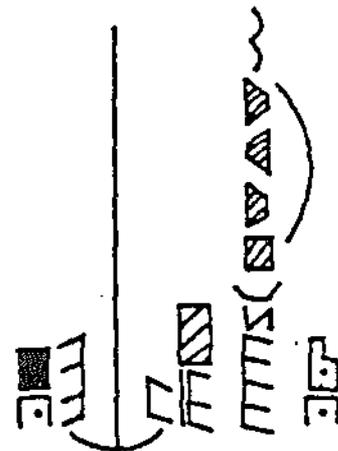
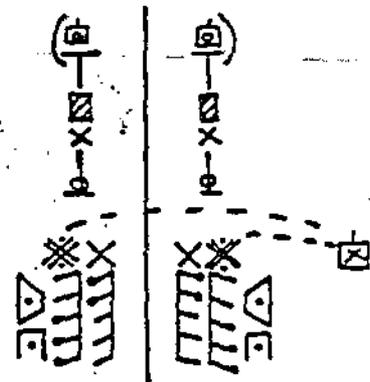
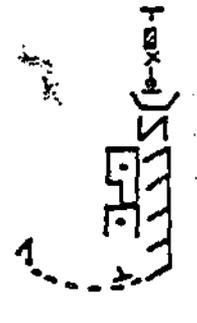
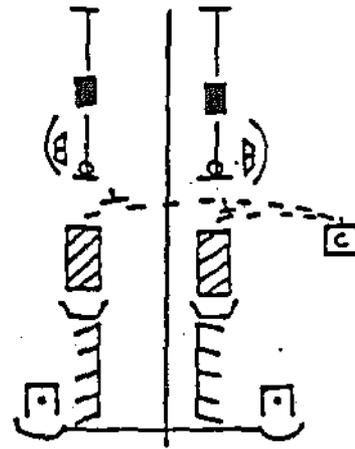


Fig. 1.

Another contrast lies in the number of articulators: many parts of the body are involved simultaneously in the production of meaningful segments of signs. Whilst this could be said to be the case for spoken languages if we took into account all the parts of the speech organs, the aural-oral nature of spoken languages precludes them, for it is only the sound which is significant, whereas in the visual-kinaesthetic realm of sign languages (in common with any other action sign system), these multiple articulators are themselves meaningful elements.

These two factors, the four dimensional time-space and the multiplicity of articulators, create conditions which allow for the production of simultaneously realized segments in sign languages in addition to the sequentially realized ones familiar to us in spoken languages. This simultaneity is a feature common to all action sign systems.

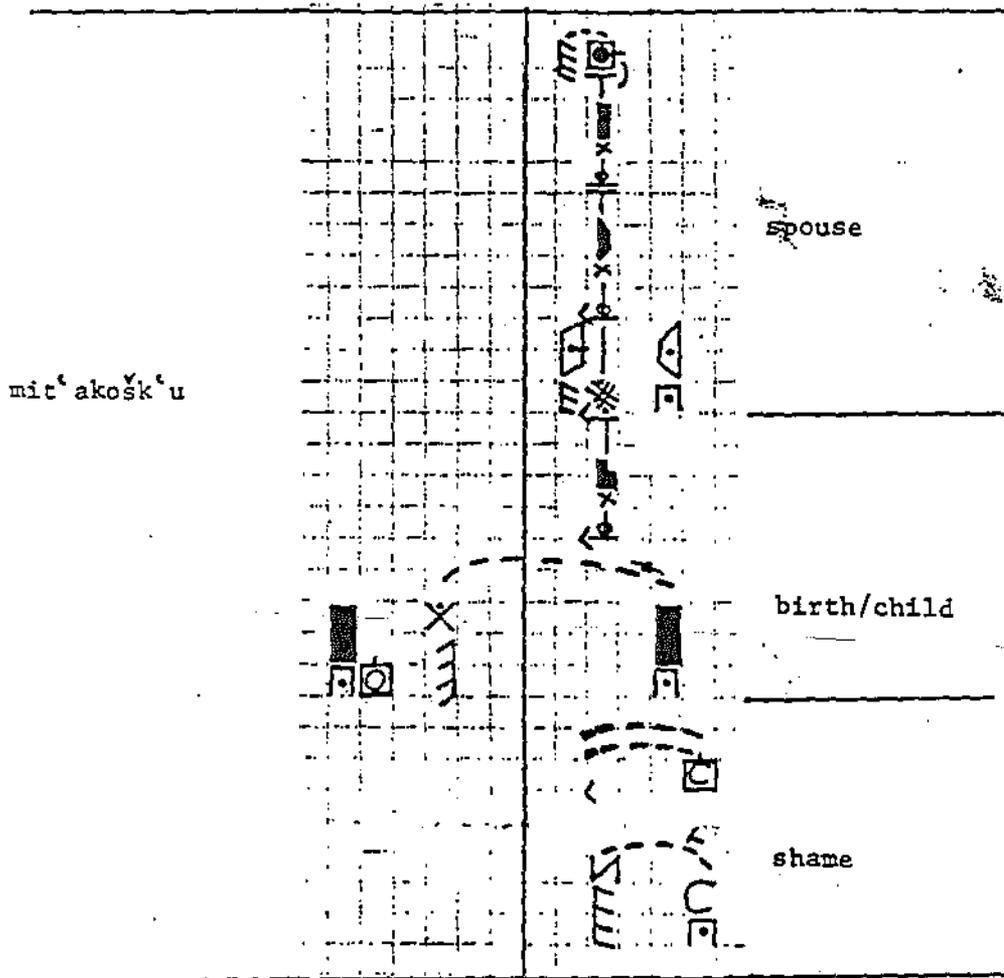
To illustrate, let us look at one tiny segment of Plains Indian sign language (PSL) which translates into English as 'son-in-law' (See Fig. 2.). Like the Assiniboine spoken language translation for this sign, mitakoški, and like the English translation, 'son-in-law', this sign is a composite. The Assiniboine spoken term can be translated into 'my son-in-law + non-address term marker'. The sign, however, translates into English word glosses as 'shame + birth/child + spouse', which is somewhat opaque until explained. Before I do that, however, note that at this level of analysis the units, like spoken language units, follow each other in time.

If we look even more closely at the segments which make up these units, however, we see that each segment is composed of one or more handshapes, which are orientated in some way and have specific locations in relation to the body and surrounding space. All this is simultaneously realized and the flow of movement takes one or both hands to another location, possibly changing shape and orientation en route. As Frishburg (1983:5) puts it, "A particular handshape, when articulated at a specific location with a prescribed movement in the proper orientation and at the correct point of contact with the body or hand surface will yield a meaningful sign". It is the transcription of the movement texts that is the representation of these elements in the symbols of the movement writing script Labanotation, which is shown in Fig. 2.

Here the symbols representing these elements are separated along two axes to differentiate between what is presented simultaneously and what is successive. The horizontal axis records everything that occurs simultaneously, and the vertical axis reading from bottom towards the top represents the successive flow through time.

Of ethnographic interest is the fact that the sign gives us information about the social meaning of Assiniboine kinship which is not apparent from the spoken language term. The element I have

PLAINS INDIAN SIGN LANGUAGE



ASSINIBOINE

PLAINS SIGN LANGUAGE

ENGLISH WORD GLOSSES
OF SIGNS

1. Mit'akošk'u
my son-in-law (+ non-address marker)

Fig. 2

glossed as 'shame' refers to the avoidance relationship which obtained between mother-in-law and son-in-law, father-in-law and daughter-in-law in traditional Assiniboine culture. They should not address each other directly, and should avoid sharing the same social space. If one entered a tipi in which the other was sitting, then the latter would turn away or cover the head (Denig, 1980).

Notice also that there is no need for the signer (a woman) to indicate the sex of the child she is talking about in the second unit. This would be redundant information because only towards her daughter's spouse would the avoidance relationship be appropriate. The last part of the sign, which I have glossed as 'spouse', is homonymous with the sign glossed as 'to sit'. A familiar conception and metaphor throughout the Plains is that your husband or wife is the 'one who sits beside you'.

Fig. 3 shows a breakdown of this utterance into constituent parts which questions the 'parameter' analysis currently common to sign language studies. It would seem to indicate that a far more dynamic representation is desirable and possible without forfeiting analytic possibilities. Space does not permit further elaboration here.

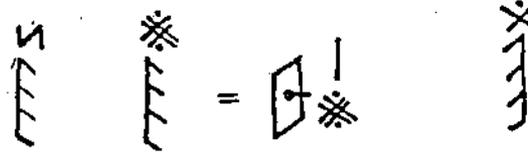
Frishburg also notes that "This difference between sequential and simultaneous parameters will have implications for the successful development of a writing system or notational set for signed languages." This is one area where perhaps the authority of spoken language writing systems has adversely affected sign language research.

The variety of ways in which investigators have attempted to record signs in part parallels the historical development of scripts for spoken languages in an interesting fashion. Most investigators, where they have progressed beyond descriptions of movements in two-dimensional drawings, photographs and diagrams, iconic mnemonic devices, one sign-one word code systems, or descriptions in words or word glosses of signs, have chosen to imitate the graphic forms of alphabetic writing systems for spoken languages. In view of their linear nature, the latter could be written in chains to be read from left to right, or right to left (Arabic). To date methods of recording sign languages have all maintained the Western spoken language tradition of providing a chain of symbols which are read from left to right. In doing so, however, they fail to take adequate account of this feature of simultaneity.

In the interests of economy, future research may lead to a wider (that is less detailed) level of transcription. For the present, however, the detail and flexibility of description possible with Labanotation is a positive feature which we should not lightly abandon. In anthropology especially, this flexibility provides the means to record according to indigenous theories of the body, space, dynamics, and relationships between all these aspects. This makes a completed movement transcription already a part of the ethnographic process, complete with all the problems of choice over transcription and translation, ambiguity, and interpretation according to the actor's point of view. There is no neutral observation stance possible from which to record movement 'objectively', and one's

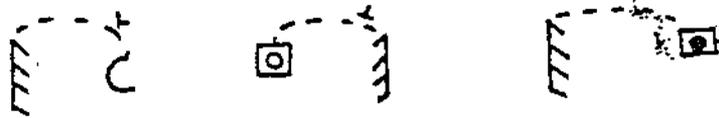
Some queries regarding PARAMETER analysis of signs:

HANSHAPES



These seem to involve changing shapes and orientations not simply static shapes.

LOCATION



Is a sign in a place or are there changing relationships between body parts which better describe the dynamics of sign production?

MOVEMENT



There are two kinds: the changing of shapes and movements which create a path in space. A notation system should be able to write both of these if they occur at the same time

PALM FACING



A useful orientation of hand which eliminates writing down arm movements and positions of parts of the arm when relationship method of describing location is used.

Fig. 3

ethnographic premises are already present in the writing of the notation. Unfortunately, naive notions about the universality of movement have often obscured the idea that translation is necessary in this medium.

The notation system in and of itself does not, of course, imply a theory of what is notated any more than the Roman alphabet does. As Ardener has reminded us, however, events which are registered are inseparably related to the 'mode of registration', that is, the means by which we record events create our definitions of them. Ardener therefore advises that we learn as much as possible about these modes. The concern, then, is with recording data according to the medium of expression. This in turn raises questions of an epistemological nature: to what extent is the mode of perception itself altered by literacy in relation to movement?

Conclusion

In this paper I first of all suggested that if social theory is to fully embrace the notion of 'person', it must not only treat the actor as embodied, but also recognize that this embodied person moves. In other words, theories of social action without the action are no longer adequate. Conceptualizations are created and articulated through action and/or speech and the two are intimately related.

Second, I drew attention to the different role played by iconicity in movement systems and suggested that perhaps our notions of iconicity in and around spoken language use deserve re-examination.

Third, I illustrated how features of simultaneity affect the ways in which action sign systems mean. This non-linearity also appears to have consequences for our conception of communication generally. As Silverstein has suggested, clearly the boundaries between indexical and symbolic aspects of spoken language systems deserve to be redrawn if not reconceptualized altogether. A further consequence, following a Wittgensteinian approach to knowledge (which suggests that conceptualization is not possible outside of some kind of symbol system), is that the boundary we have created between experience and symbolization mirrors almost exactly the Cartesian split between body and mind and is therefore also a philosophically questionable distinction.

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The pictures in Fig. 1 are taken from Tompkins, W., 1969 (1931), Indian Sign Language, p. 56. Dover, New York; and Baker, C. and D. Cokely, 1980, American Sign Language, p. 40, T.J. Publishers, Inc., Silver Spring, Md.