

## 6 Grammatical convergence in sign languages

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### 6.1 Introduction

Three observations emerge from the dissertation so far: the first is expected, while the second and third emerge from the research itself. The first concerns the linguistic status of sign languages; the second, the status of Auslan as a sign language; and the third, the relationship of sign languages with each other. It is the third which is of particular importance to sign language linguists and is addressed in some detail in this chapter.

It was explained in Chapter 1, with regard to the first observation, that it has been taken as a given here that sign languages are indeed bona fide linguistic systems equal to spoken languages. Though it is possible to draw this conclusion from the dissertation, it has not been my purpose here to establish that sign languages generally are indeed languages.

With regard to the second observation, there is certainly no basis for the recent notion entertained by some Australian observers and educators that the sign language of the Australian Deaf community lacks the systematicity reluctantly conceded as a feature of ASL. Though a growing and accessible literature documenting ASL, combined with a dearth of information on Auslan, no doubt contributed to this impression, this dissertation clearly establishes that Auslan is a sign language equal to other sign languages. Native Australian signers do indeed use a language which differs significantly from standard English in regular and predictable ways and among Auslan users one can observe the systematic and patterned use of grammatical resources such as the modification of individual lexical items, sign affixation, sign order arrangement, intonation and phrasing, and the use of various language-specific lexical syntactic markers.

The third and problematic observation which will be taken up in this chapter is, that despite its ‘uniqueness’, Auslan has grammatical characteristics that overlap so much with ASL (and other sign languages) — much more than one would find in spoken languages — that one must seek an explanation. As citation throughout the text has shown, virtually all observations made with respect to ASL *grammar* have been found to have parallels in Auslan, though research has also shown decisively that the lexicons of natural sign languages are quite distinct from each other unless the languages are genetically related. Numerous comparisons have been made between the lexicons of various sign languages and ASL (e.g., BSL (Deuchar 1983, Kyle & Woll 1985), LSF (Moody 1984, Woodward 1978), Chinese Sign Language (Klima, Bellugi et al 1979, Yau 1977), Danish Sign Language (Klima, Bellugi et al 1979), Japanese Sign Language (Kanda 1986), Warlpiri Sign Language (Kendon 1984), and so on) that support the observation of the lexical diversity of sign languages. Other similar observations could be made on the basis of comparing sign lists and dictionaries from such disparate sign languages as Taiwanese Sign Language, Thai Sign Language, Finnish Sign Language, Swedish Sign Language, Russian Sign Language, and Irish Sign Language. In addition, my own research documented in Chapter 7 clearly shows the unique nature of signs which have been generated within the Australian Deaf community. Indeed, the lexicons of unrelated sign languages are distinct even in that relatively small, yet core, area of the lexicon where signs are iconically transparent. As is explained below (6.1.2.2), though iconicity can produce sign similarity, it need not. Only if two signing communities share similar cultures is there any real likelihood of a degree of overlapping in the iconically transparent area of the lexicon.

The phonological diversity of these languages has also been established — the repertoire and use of phonemes is quite distinct from language to language. The phonologies are reasonably different in the type and number of handshapes used though there is a large core of commonly occurring ‘unmarked’ handshapes. On the other hand, tabulations, movement types, and typical orientations are all basically similar. The manner in which

handshapes are used seems to be of greater interest than which handshapes are actually used (e.g., Klima, Bellugi et al 1979:157).

In morphology and syntax the similarities between sign languages become apparent. Of course, the strength of this observation is dependent upon the data we have on various sign languages; some of the data in this area may appear to be inconclusive or even contradictory due to the inherent instability of signing communities (which results from language acquisition patterns and the influence of various host spoken languages). In earlier sign language studies, for example, the differences between sign languages were being stressed. For example, Stokoe and Klima (Kavanagh 1975) claimed that ASL and BSL are very different languages, and only conceded a possible *similarity* (not identity) of syntax on some purely abstract level. Considering the existence of differing opinions about the extent of the similarity, it is not yet clear whether the few potential differences between these sign languages are really due to differences in language-specific patterning or to the weight given to different interpretations and analyses of fundamentally identical phenomena and thus do not, in fact, exist.

Conversely, the extent to which interference from English may contribute to the impression that ASL and BSL (and, hence, Auslan) are essentially morpho-syntactically 'identical' has been discounted by some sign linguists (cf. 6.3). In the open discussion reported in Kavanagh (1975:245) Stokoe and Klima maintain that though BSL and ASL are quite dissimilar, one would expect them to be similar if English was impacting on their form: "If American English and British English have the same (similar) syntax one would expect that ASL and BSL would also be similar." Deuchar (1977:129) questions the extent of the similarity between ASL and BSL, which she recognizes, and is dismissive of the possible role of English in this:

We have seen that BSL and ASL exhibit considerable similarity, but also some differences, at the levels of both phonology and grammar. While the similarities may be due to the constraint of the visual medium combined with possible historical relations and/or language contact, they do not appear to be due in the least to the English of their hearing communities. The differences between the two languages show that when two sign languages develop in two separate communities, their structures will differ just like the structure of spoken languages which have different developmental histories.

Whatever the impact of English, it is possible that the assumed dissimilarity between BSL and ASL is based on their observed mutual unintelligibility which is clearly a function of quite distinct and unrelated lexicons. It is an open question as to whether this is also a function of distinct grammars. That is to say, two mutually unintelligible languages could have 'identical' grammars, but dissimilar lexicons. One thus need not dispute the observation of mutual unintelligibility to question the distinctiveness of the morpho-syntax of both sign languages.

Overall, fragmentary studies of parts of the grammar of a number of natural sign languages do nonetheless contribute to an impression of shared syntactic patterning across sign languages. The lexical diversity among sign languages — long established and recognized — remains a valid observation. Only now, as studies such as the present are being made of other sign languages, is the degree of commonality among sign languages on the grammatical level coming to light. Most of these studies have already been cited for comparison throughout the text. They include: the verb system of Italian Sign Language (Pizzuto 1986), the use of space with verbs in Danish Sign Language (Engberg-Pedersen 1986), the basic structure of Finnish Sign Language (Rissanen 1986) and Russian Sign Language (Zaitseva 1983), the lexicon and basic structure of Dutch Sign Language (Lonke 1983), grammatical processes in BSL such as person agreement (Brennan 1981) and the marking of time (Brennan 1983), morphological processes in Swedish Sign Language (Bergman 1983), expression (lip-movements) in Norwegian Sign Language (Vogt-

Svendsen 1983), the role of babbling in ASL and Langue des signes québécoise (Petitto 1987), the nature and description of non-manual markers in LSF (Jouissou 1986) the marking of aspect in Thai Sign Language (Suwanarat et al 1986), the basic structure of Indian (Bangalore) Sign Language (Vashishta et al 1985), Brazilian sign languages of Sao Paulo and the Urubu-Kaapor Indians (Brito 1984) and Taiwanese Sign Language (Smith & Li-fen, 1979). They all appear to paint a picture similar to fuller descriptions of ASL, BSL and LSF (Moody 1984). In the area of morphology and syntax it would appear that there is some, but only marginal, difference between sign languages which have been studied (cf. Kyle & Woll 1985:25).

The core features of sign language grammars that we have been alluding to are covered in the following summary of some of the features of Auslan grammar which were presented in Chapters 3, 4 and 5. Auslan has a rich morphology, both 'derivational' and 'inflectional', which fully exploits the language medium: number, person and aspect as well as the derivation of nouns from verbs and vice versa can all be coded morphologically. The morphological processes involved include aspect modification (location, direction, hand-shape, quality of movement etc.) and hand arrangement. Adjectives appear to be indistinguishable from verbs (they take on the same morphological markings as verbs). Adjectives are, in fact, stative verbs. Auslan makes great use of a system of predicate and proform classifiers that appear to make a significant contribution to the tendency for topic prominence in the language. There is virtually no inflectional marking for tense which is achieved lexically through the use of signs such as WILL, BEFORE, TOMORROW and so on. Since tense is marked periphrastically (and usually only once to establish a time frame), there is no formal difference between tensed and infinitival clauses. Sign order appears to be highly dependent on discourse factors and on the potential for individual signs to inflect or not. There is a basic (or 'default') SVO sign order whenever morphological, textual or semantic factors do not allow or require another reading. Since redundant subjects are regularly omitted, transitive verbs with a thematized patient are often indistinguishable from intransitives. Together with the tendency for phrases and clauses to be concatenated subject omission also produces serial verb constructions. Auslan has no 'true' passive. Topicalization is achieved by fronting any phrase element, including the verb, and marking with a special intonation contour (and/or inserting a lexical topic marker). Question sign order is identical to that of statements. Questions are marked through intonation and/or the introduction of an interrogative sign which may be either pre-posed, post-posed or even bracket the phrase. Co-ordination is regularly paratactic, though lexical conjunctions are also available. Indeed, paratactic constructions linked and separated using intonation contours are a regular feature of Auslan.

Despite the fact that data on sign languages is relatively sparse (ASL is by far the most studied and well documented sign language), the studies of sign languages to be found in the literature such as those mentioned above and comparisons of ASL, BSL, and FSL such as Brennan (1981:120-135), Moody (1983), and Woodward (1980:103-118) strongly suggest that the above summary may be a fair description of the grammar of many (if not most) sign languages. Though the obvious historical link between BSL and Auslan (see 2.4) can be used to explain the similarity of both lexicon and grammar in the two sign languages, there is no such historical link to explain the similarity of the morpho-syntax of other natural sign languages when compared with each other or with 'Anglo' sign languages (i.e., BSL and Auslan). Likewise, the historical link between ASL and LSF (Lane 1984, Stokoe 1974) can explain similarities of both lexicon and grammar in the two sign languages, but not the similarities between them and other unrelated sign languages.

Though it is undoubtedly premature to assert the fundamental identity of all natural sign languages on the morpho-syntactic level, since the sign language of many signing communities is usually only described in terms of phonology and lexicon with only cursory treatment of morpho-syntactic patterning, there does seem to be some need, even at this early stage, to account for the apparent convergence in morpho-syntactic patterning that seems to be emerging. However, one needs to be exceedingly cautious when making

any ‘universal’ propositions regarding sign languages. None of the above is meant in the spirit of Tylor (1895:118-119 cited in Kyle & Woll 1985:163) who wrote:

This ‘gesture-language’ is universal not only because signs are ‘self-expressive’ (their meaning is self evident) but because the grammar is international.

There is no sense in which gestures are universally intelligible to non-signers or signers (though they can, of course, be culture specific). There is nothing ‘self-evident’ in the vast majority of signs. And though an identity of morpho-syntactic patterning across sign languages may be entertained, there is no sense in which that grammatical patterning is universally intelligible or self-evident to signers and non-signers alike (as Tylor implies). Thus, cautiously, the question of sign language universality and iconicity must indeed be posed again but this time without the assumption of ‘transparent intelligibility’.

The reported experiences of native signers seems to give some support to the observation that grammatical patterning in sign languages is not unique or is, at least, convergent. As many researchers have pointed out, one must, however, be very cautious in interpreting these observations. For example, Battison & Jordan (1980:139) report deaf signers as claiming that it was relatively easy to understand another sign language, but not speak it. They continue (1980:140):

Most of our non-American informants, particularly the Europeans, say that communication with foreign deaf people is not a problem. Depending on past experience and amount of interaction with foreigners, most people say that after two or three days they can understand each other pretty well.

As Battison & Jordan (1980) point out, the speed with which signers report that they are able to converse with signers of a foreign sign language can be partially explained by the fact that the kind of exchanges typical of such encounters (international conferences and sports events, visits to local deaf clubs, etc.) are not only highly predictable (‘What country do you come from?’ ‘Where do you live?’ ‘Are you married?’ ‘What’s your job?’ ‘How many children do you have?’ ‘Have you been here before?’ ‘When are you leaving?’ ‘Where are you staying’ ‘Have you seen X (some famous tourist sight)?’) but they are the type of encounters that deaf people the world over have almost a daily familiarity with. Deaf people are accustomed to rapidly improvising a small working vocabulary based on the idiosyncratic gestures of hearing people. Furthermore, though their skills in the area of interpretation, memorisation, negotiation and improvisation of often highly iconic signs may be quite prodigious, they are also likely to overestimate the success or ease of the communication, at least in the initial stages. Even after a few days it is highly unlikely that one is able to broach topics easily dealt with in one’s native sign language. Clearly, despite reports of ease of cross-linguistic sign communication, there is no evidence here for a mutually intelligible universal sign language.

On the other hand, neither is there any evidence to contradict an identity or convergence in grammatical patterning across sign languages. For example, following an international deaf theatre workshop in Paris (1979) at which I was also present, Moody (1979 cited in Kyle & Woll 1985:171) reported that “The syntactic rules of all sign languages we were able to observe appear to have recourse to space, movement and orientation of signs in a similar manner.” My own personal experience, in addition to ample anecdotal evidence from native ASL, BSL and Auslan signers resident in Sydney, indicates that it is lexical, not syntactic, differences that are noteworthy in communicating with other sign language users, even when the host spoken language of its signing community is not English. It is important to remember that I am not referring to immediate mutual intelligibility — one cannot understand the foreign signing on first encounter. However, once a core lexicon is learned signers construct phrases and modify signs as they would in their native sign language and are under the impression that they are producing meaningful utterances — the

test of which lies in the successful conduct of conversation. Though pragmatic considerations, the iconicity of individual signs and lowered expectations (based on only partially successful communications with hearing people) may to some extent account for the ease with which signers report they are able to communicate with foreign signers, these explanations are not sufficient when we consider longer-term interactions or the learning of a foreign sign language by Deaf signers. Once again, one is forced to consider the likelihood of an underlying similarity of morpho-syntactic and syntactic patterning.

In this chapter I discuss four major constraints on grammatical organization to show how they variously contribute to produce particular characteristics of Auslan and other sign languages. The four constraints are: 1) the visual-gestural nature of sign languages, 2) the absence of a written form for sign languages, 3) the unique contact features of sign languages and their host languages, and 4) the patterns of acquisition of sign languages by their speakers. Only the first of these — the visual-gestural medium — is ‘purely’ linguistic in nature, while the others are essentially socio-linguistic in nature. Primary weight is given in the chapter to the discussion of the visual-gestural medium as this reflects its importance and impact on the grammar of sign languages. Apart from the absence of a written form, these factors have been discussed in the literature with respect to descriptions of ASL and BSL. Given the fact that we now have so many more descriptions of clearly unrelated sign languages, it is appropriate to consider these factors once again. This discussion once again underlines the fact that the central question for linguists is not whether sign languages are languages or not (see Chapter 1) but a) how to describe and explain the characteristics of sign languages and b) equally as important, how to describe and explain their relationship to host spoken languages.

## 6.2 Medium and coding

### 6.2.1 Introduction

Linguists have been concerned with the medium (or ‘modality’) of sign languages — visual-gestural rather than oral-aural — and the linguistic patterning typical of and necessitated by this medium. As Klima, Bellugi et al (1979:314) write:

We may [...] raise the question of whether other sign languages may be found which display other typologies, or whether the modality in which the language develops constrains its natural patterning in one direction rather than another.

The concern with modality has focussed on discreteness and holism, simultaneity and sequentiality, and iconicity and arbitrariness in linguistic coding (Brennan 1986). Discreteness will only be touched on here by way of introduction to the discussion of simultaneity and iconicity. It will not be treated at length elsewhere for two reasons; first, the question is essentially resolved in the recognition of the sublexical structure of signs (see Chapter 3) (i.e., signs are not ‘global unanalysable units’); and, second, any residual concerns about discreteness in coding are intimately connected with iconicity and will be dealt with under that topic.

The question of discreteness ultimately concerns segmentability as a practical possibility and as a theoretical necessity in the description and analysis of various types of iconic or mimetic signs, especially verbs of location and motion and ‘animated’ proform classifiers. Though clearly supporting the appropriateness and feasibility of segmenting the sign, Padden (1988) explains earlier notions of the sign as a global unanalysable unit by noting that:

Many, like Plato, have been struck by the unique form of signed languages; lacking the familiar elements of speech and relying on the mode typically used for gesture, the overriding impression of signs is that they are largely analogic with little segmentable content. (p 250)

The overriding issue in signed language phonology has been how to segment the sign. (p 255)

Though a few linguists, such as DeMatteo (1976, 1977) and Mandel (1976, 1977a), have argued that the auditory channel is discrete while the visual channel is analog (i.e., essentially continuous and indexical), a majority have demonstrated that discreteness is clearly manifested in sign languages just as it is in spoken languages. Duality of patterning in sign languages (e.g., phonological processes of progressive and regressive assimilation, deletion and insertion) have been made time and time again in the literature (Siple 1982, Bellugi et al 1979, Padden 1988). On the other hand, the existence of clearly iconically motivated aspects and modifications of signs does not necessarily mean, as some criticisms of DeMatteo (1977) have suggested (Wilbur 1979), that a linguistic description cannot or need not refer to iconic or analog features of a sign. Indeed, in some instances it may be an essential characteristic of the sign.

The possibility that there might be modality specific language principles and universals is still very much an open question. Siple (1982), among others, argues that the formal structure of language is identical in both spoken and signed modalities and that the “similarities [between modalities] are greater than the differences” (1982:315). In contrast, Ingram had earlier argued (1978:194) that “We have now reached the point in sign language research where it is no longer necessary — or even desirable — to describe sign languages in terms of spoken languages.” In all likelihood it appears that on certain levels signed and spoken languages are identical but on others they are rather different. One clear area of difference is that the visual system exploited by visual-gestural languages is ideal for expressing spatial information. Though one might not be able to agree with Siple who claims that “The auditory system is said to be specialised for temporal information whereas the visual system is specialised for spatial information,” (1982:314) one may be able to argue that the use of space to encode ‘non-locative’ grammatical information (as shown in Chapter 5) is dependent upon the ease with which spatial information can be expressed in a visual-gestural language. While discussing of the modality specific features such as the degree of simultaneity (or ‘layered organization’) or the pervasiveness of iconicity in sign languages, Bellugi & Klima (1982) remark:

While ASL is the most thoroughly analysed of the signed languages of the world to date, other signed languages that have been so far examined suggest that these [modality specific features] are general characteristics of primary signed languages.

### 6.2.2 Simultaneity and sequentiality

From the earliest descriptions of the structure of the sign in sign languages (West 1960, Stokoe 1960), it was quite apparent that the aspects of a sign — designation, tabulation, signation (and possibly orientation and expression) — can each be analysed as being realised by classes of minimal units comparable to phonemes (see Chapter 3). However, the structure of a sign differs from that of a word in that in the former the phonemes of designation, tabulation, signation, and so on, combine with each other *simultaneously* to produce a sign while in the latter (except for lexical tone) phonemes combine sequentially to produce a word.

The claim that the organization of sign language is primarily simultaneous rather than sequential results from the above observation on the level of the individual sign. Given that each phoneme in Auslan is also a morpheme (see 3.1.2), simultaneity also naturally implies the possibility of explicitly making more than 'one meaning' at any one time. Indeed, a so-called 'single sign' can thus function as a complete utterance without any information being assumed to be elided or taken for granted since it can be explicitly coded in the form of the sign itself. Further evidence for simultaneous organization is the possibility of articulating two separate signs simultaneously — one on each hand.

Stokoe was very careful to underline from the beginning that the aspects were simultaneous and ultimately inseparable features of a sign in their interdependence, with one value often implying or entailing another. For example, given movement, point of contact and handshape, it is often only possible for the hand or hands to be oriented in one way. The addition of orientation, and to a lesser extent expression, as aspects of a sign, was seen as especially problematic because it was simply impossible to produce a sign 'without an orientation'. However, as shown in Chapter 3 (3.4), it is quite possible to produce a sign with the wrong orientation or for orientation to be the only contrastive difference between pairs of signs. Though 'parameter' may be an ambiguous word to use when discussing these aspects, as many sign linguists have (e.g., Wilbur 1979), the use of 'segment' clearly implies a sequentiality of aspects not present in the original Stokoe model and is best avoided (cf. Brennan et al 1984:123). Each sign is thus constructed by the combination of these aspects which are all made simultaneously.

Much has been made of the simultaneity of the aspects of a sign and it has been claimed that this degree of simultaneity in distinguishing lexical items and establishing grammatical function (see Chapters 3, 4 and 5) is not found in spoken languages. For example, Klima (1975:250) writes:

In spoken language phonological features (such as nasality, presence of voicing, and stridency) occur simultaneously in constituting the phonological segment, and phonological segments in turn occur sequentially in constituting the morphemes and words of the language. The words in turn occur sequentially in constituting the various phrases which form the sentences of the language. In sign language, on the other hand, as I will specify in greater detail below, representatives (primes) of each of three or four major formational parameters (hand, formation, place of articulation, movement, and perhaps orientation) combine simultaneously to constitute the individual signs (that is, the sign language equivalent of free morphemes), while the individual signs combine sequentially to form phrases and sign sentences.

The implication here (see also Friedman 1977:4) is that such simultaneity (apart from the simultaneous articulation of distinctive features in individual phonemes) is quite unique to sign languages. However, it is clear from a consideration of tonal languages and the suprasegmental features of all spoken languages that this is not, strictly speaking, true. Nonetheless, though the simultaneous articulation of phonemically distinctive aspects is entirely comparable with tonal languages where tonal contours operate to distinguish lexical items, one does find in sign languages the superimposition of five features which operate lexically (see minimal pair analyses in Chapter 3) and grammatically (e.g., in directional signs). Spoken languages tend to rely as much if not more on essentially sequential and linear strategies such as the sequential addition, insertion or substitution of morphemes (or the arrangement of word order) as they do on relying on simultaneous elements like tone or intonation.

Perhaps what is noteworthy in sign languages is not the fact of simultaneity but, rather, the number and clear preference for simultaneous elements. The mode of sign languages clearly seems to favour this.

The simultaneity referred to above is thus not of distinctive features (see Chapter 3) but of aspects which are themselves phonemic and it is here that some misunderstanding may

arise. The misunderstanding may be that though the sign is well understood not to be a ‘global unanalysable unit’, it is somehow imagined to be a unitary act with no segments or temporal depth — as if the sign was an instantiation of aspects without it being possible for those aspects to change over the production of a sign. Siple (1982) and others, no doubt reacting to the strong claims of simultaneity in the sign such as that of Klima (1975) and Klima, Bellugi et al (1979) — “Signs are simultaneous rather than sequential organizations of parameter values.” — have queried the extent to which the sign information is truly simultaneous. Contrary to such strong claims, signs, in Stokoe’s original formulation, are clearly recognized as unfolding in time and having a beginning, a middle and an end: designation, tabulation, signation etc., can all change. The simultaneity of aspects refers to their necessary co-occurrence at any given moment, not to their existence ‘only for a moment’. The duration of the sign is clearly obvious in terms of signation. Supalla (1982) analyses verbs of motion and location as having a sequential combination of various movement roots together with classifier (i.e., noun class and orientation) affixes (which are a kind of infixes or even, more correctly, ‘superfixes’). Liddell (1984) pointed out that up to 95% of the signs that move in the *Dictionary of American Sign Language* (Stokoe et al 1976) are clearly sequential in character. Johnson and Liddell (1986) point out that the analysis of the combination of sequential and simultaneous elements in a sign is facilitated by the use of autosegmental phonology developed originally to deal with features of tone, syllable structure, intonation and even vowel harmony (Anderson 1985:348-349). For example, the use of tiers and segments (such as ‘movement’ and ‘hold’ segments) is an attempt to give both temporal and structural depth to the sign (e.g., Sandler 1986).

There is also a suggestion in the idea of the simultaneous articulation of sign aspects that — beside, of course, the selection and combination of lexical items — sign languages only use methods of sign modification which are ‘internal’ to the sign (modifying hand-shape, location, movement, expression etc.) rather than additive and sequential, like affixation or even word order.

Though affixes are indeed rare in sign languages, they do occur in Auslan (see Chapter 4) and BSL (Brennan 1985). These affixes may well have evolved from compounds, but it is beyond doubt that today in Auslan and BSL that these affixes have no independent existence (i.e., they are bound morphemes). The addition of the negative suffix in Auslan is clearly a sequential modification of a sign which adds a segment to it. This occurs along with internal sign modification (e.g., reversal of direction or the head shake) and lexical negation (using a sign equivalent to ‘no’ or ‘not’ or a lexical item in which part of the meaning of the sign is ‘not x’).

Moreover, the apparent freedom of word order in sign languages has also been taken as symptomatic that all codings are simultaneous or ‘layered’, rather than sequential. However, as has been shown in Chapter 5, despite the great freedom in possible word orders, word order can, nonetheless, be of some importance in Auslan. Even though internal sign modification is central to the morpho-syntax of Auslan and other sign languages, it would not be correct to state of Auslan nor, as others have argued, of ASL (Fischer 1974) that:

There is no need for fixed word order in a language that has a more efficient means (within the modality) for expressing the relations between argument and verb, so we would expect such a language neither to develop nor to adopt such a system. (Friedman 1976:145).

The reasons are twofold: first, some orderings are incoherent or inconsistent with certain sign inflections (see examples at 5.2); second, certain anchored signs are only able to inflect for aspect and must rely on order to express relations between arguments and the verb if they are to stand alone unambiguously as coherent propositions without recourse to repetition and rephrasing using classifiers, directional verbs and spatial codings.

Nonetheless, much of the information conveyed in spoken languages by word order and/or the sequential addition of morphemes is not expressed by any linear or sequential order in sign language but, rather, is ‘fused’ into the form of a sign. A single sign can therefore be charged with a high degree of information (e.g., by modifying the citation form a verbal sign can incorporate subject, object, and adverbs of manner and frequency). Thus a single linguistic act in sign will often require several distinct and successive linguistic acts in a spoken language (either by attaching morphemes and/or by selecting appropriate word order) to convey the same amount of information. Friedman (1976:140-141) summarises these processes thus:

ASL has a tendency to avoid adding (or having appear on the surface) the grammatical ‘trappings’ that regularly occur in oral languages — which could be called leaving out anything you don’t absolutely need (e.g., no tense or case marking, aspectual markings by phonological alternation, avoidance of surface object, deletion of identical subjects, ‘incorporation’ of object, number manner adverbials (by phonological alternation), etc)....

She suggests that an explanation for this phenomenon is to be found in the modality of sign languages. The avoidance of syntactic redundancy and the incorporation of a large amount of information into a single sign may be a function of the fact that the gross motor movements of the hands and arms take longer to perform than do the minute movements of the vocal organs. The end result of this high degree of ‘simultaneous coding’ rather than ‘sequential coding’ is, as research into ASL has shown (Bellugi & Fischer 1972, Klima, Bellugi et al 1979:181-194), that despite the differing strategies employed, on average, it takes about the same amount of time to elaborate propositions in both modes. In this way the modality of sign languages once again predisposes them towards simultaneous codings.

Thus though the phonemes, morphemes and lexemes of spoken languages must unfold sequentially, making it impossible to say two things at one and the same time, in a sign language phonemes and morphemes are articulated, in the first instance, simultaneously and, in the second, sequentially (i.e., they co-occur and can change their value over the duration of the sign or may be added as a separate segment as in affixes). This does not imply, of course, that any particular spoken morpheme cannot mean two or more things at once. In fusional languages, for example, number and case can be encoded in the one form. While lexemes in sign languages are generally articulated sequentially, there is the possibility — which is regularly exploited — of articulating two lexemes simultaneously. That is to say, two signs may be produced at the one and the same time, one on one hand and one on the other. Both sign and spoken languages necessarily unfold temporally, but in sign languages it is only signing events, not necessarily individual signs, that must always follow one another. Of course, any sign utterance that consists of more than two one-handed or reducible signs must also involve signs being made one after the other.

The fact that a language uses the medium of space does indeed impact on the coding in that there is a potential for co-occurrence and simultaneity not found in oral-aural languages. The simultaneous and the sequential can thus be seen to be relative rather than absolute characteristics of speech and sign.

### **6.2.3 Iconicity and arbitrariness**

All pervasive iconicity is an undeniable characteristic of sign languages: it can be found at lexical, morpho-syntactic and syntactic levels of organization. The question is not whether it is present or not but the reason why it is a regular feature of all sign languages and the extent to which iconicity in sign languages may explain a predisposition in such languages towards a convergence in morpho-syntactic and syntactic patterning. In this section I will first examine the general question of iconicity in language so that the discussion is placed

in proper relative perspective vis-à-vis spoken languages (6.2.3.1). I will then clarify the notion of iconicity in sign languages by looking at the various levels at which it may be manifested in such languages (6.2.3.2), with significant space being devoted to lexical iconicity since this is the level at which most discussion of iconicity in sign languages has been focussed (6.2.3.3). Finally (6.2.3.4), I argue that the all pervasive iconicity of sign languages can be seen to contribute to a convergence of grammatical organization in the locative and directional system, despite the fact that it does not contribute to lexical similarity except in the transparent area of the lexicon.

### 6.2.3.1 Iconicity in language

It has often been taken as a defining characteristic of languages that the relationship between signifier and signified is completely arbitrary and the ‘language-likeness’ of non-verbal signifying systems has been judged according to the degree of this arbitrary relationship. Systems in which the signifiers are highly motivated have been suspect and considered to be pseudo-linguistic.

Within ‘bona fide’ linguistic systems onomatopoeia has been considered a special case, occupying the outer, fuzzy, fringes of these systems. Any cursory examination of onomatopoeia quickly reveals, however, the essential similarity of such signs (words) with other signs (words) in a linguistic system. Though iconically motivated to sound like or imitate the referent, the relationship between form and meaning in onomatopoeic signs (words) is clearly mediated by the phonology of the respective language. The language-specific phonological form of an onomatopoeic sign (word) further ensures that they are not universally or even transparently iconic across languages (such that for speakers of other languages they are not perceived as onomatopoeic at all).

Despite the fact that the proportion of ‘onomatopoeic’ (i.e., iconic) signs in sign languages is enormous when compared to spoken languages (possible reasons for this are discussed below), comparison of iconic signs across sign languages has likewise lead to similar observations of their language specificity and non-transparency. It therefore appears that the essential nature of the relationship between signifier and signified in the linguistic sign is that it be conventional, rather than arbitrary (i.e., not motivated in any way). A signifier does not exist in a particular linguistic system ‘for no reason at all’: there are historical, phonological, and iconic reasons which account for the form a particular signifier has assumed in a particular language. Thus historical linguistics explains why a particular signifier, and not another, occurs in a language and together with phonological analysis can even account for the actual spoken realisation of the item. Signifiers which are imitative (onomatopoeic) are likewise clearly conventional though cultural and phonological considerations will often account for their actual realisation as lexical items. However, viewed from outside of a linguistic system it is of course true that there is no necessary relationship between any signifier and signified in a language — such relationships are purely contingent facts of a language.

The iconicity of sign languages cannot only be relatively easily accommodated into a general theory of signification in this way; it can also be more readily accommodated by recognizing that iconicity in spoken languages is far more widespread than we may wish to think. For instance, in a study of iconicity in language, Westcott (1971) was able to identify so many iconic elements in the phonology, grammar and overall structure of languages as to assert the ‘all-pervasiveness’ of iconicity in language (cf. Robinson & Griffith 1979). Without wishing to digress into the complex and fascinating area of onomatopoeia and sound symbolism in spoken languages, examples of sound iconicity discussed by Westcott range from the familiar and often quoted ones first given by Jespersen (1922) regarding the association of front vowels with diminutiveness (‘wee’ ‘tiny’) and back vowels with augmentation (‘huge’ ‘vast’), the iconicity of lexical stress in Russian and lexical tone in Bini, and the ‘secondary’ iconicity of phonesthesia in which real-world associations of sound and meaning are amplified or even engendered by language-specific

clustering of phonological form and meaning (e.g., [gl] in *glass*, *glimmer*, *glisten*, *gleam* and so on) (cf. Bolinger 1981:129-131). These associations can become quite abstract, e.g., the phonesthesia of high front vowels for diminutive in English has been argued to be present in the opposition of ‘this’/‘that’.

The iconicity of form and meaning extends into morphology and syntax. Commonly cited examples include reduplication of morphemes for number or aspect, and the temporal iconicity of the order of elements in syntax. Where there are no explicit markers to the contrary, temporal iconicity at the clause level forces a reading whereby the order of clauses reflects the order of events in the real world. As Haiman (1985) and others have argued events are regularly recounted more or less in the order in which they occur, especially if they are foregrounded (Hopper, 1979:214). There are no languages in which stories are regularly told chronologically backwards. Without lexemes which explicitly mark temporal sequence and hence allow one to invert the syntactic but not temporal order of clauses (events), it will be assumed that two cojoined or juxtaposed clauses (events) occur in the sequence in which they are stated or signed (unless the first logically entails the prior occurrence of the second). It has been argued (Landsberg 1980) that one expression of a parallelism between form and meaning, for both spoken and sign languages, is “the tendency for many languages to have a primary subject-predicate sentence organization — or at least to have the subject preceding the object so agreeing with the order of actor and acted upon in the world of events.” (Armstrong 1983:59; cf. discourse pragmatics and syntacticization in Givón 1979). A major difference between spoken and sign languages in this regard is that iconicity is far more systematic and wide-spread in the latter than the former, especially at the smaller units of organization (phonemes and morphemes) which, as Bolinger (1981:10-11) echoing Saussure observes, tend to be more arbitrary in spoken languages in higher units of organization (phrases, clauses and sentences).

It would appear, therefore, that iconicity in language is a matter of degree and not kind (Armstrong 1983: 54). At all levels of linguistic organization in sign languages the relationship between form and meaning is highly motivated, though in spoken languages this relationship is less evident at smaller units of organization. The reason why sign languages may allow for a greater penetration of the iconic into their systems of representation appears to be directly related to the visual-gestural modality and the nature of the world which they represent. The relationship between signifier and signified in a linguistic system is dramatically influenced by the medium or mode used to express and receive meanings in such a system. This has less to do with the naive notion of hearing people that sign languages are nothing but gesture or mime, and more to do with the fact that there is a convergence between signifier and signified in sign languages which is not present in spoken languages.

The reality around us about which we wish to communicate is fundamentally visual and spatial rather than auditory (cf. Fromkin 1978:4-7; Deuchar 1984:13). That is to say, in ‘reality’ events and relationships between events often have a spatial-visual dimension which easily lends itself to being represented through the analogs of the hands in the signing space. Even abstract relationships and temporal sequences also lend themselves to spatial-visual representation. Spoken languages also exploit their modality: where possible, spoken languages often use onomatopoeia, but its scope is limited owing to the fact that that which we wish to communicate about often has no auditory dimension. As Deuchar (1984:12) comments:

objects in the external world tend to have more visual than auditory associations. Many entities and actions have salient visual characteristics. It is difficult[...] to imagine any characteristic sounds which might be associated with any of these meanings.

One needs only to compare the difficulty in imagining any sound that might be commonly associated with, say, the sound of a leaf falling, the sound of someone peeping

around a corner, the sound of a cat licking itself, or the sound of someone reluctantly writing a letter, on the one hand, with the ease with which one may imagine visual characteristics of such events, on the other, to realise the importance of this observation.

Thus the degree to which information is processed digitally (using a combination of discrete units which bear an arbitrary relationship to that which is represented) rather than analogically (using continuous units and sequences which bear a direct relationship to that which is represented) is in part due to the constraints of the medium or mode itself and the degree to which its mode of representation maps onto 'reality'. It is not that oral-aural and visual-gestural languages represent two distinct types of linguistic coding — one digital and the other analog — rather it is the degree to which a linguistic system may exploit both strategies of representation. After all, onomatopoeic analogs are 'digitalised' through the phonological system of a spoken language and iconic analogs are 'digitalised' through the phonological system of a sign language. However, one cannot fail to observe that a language in the visual-gestural mode allows for a far greater penetration of the analogical into its system of representation simply because of the primacy of vision, the visual and spatial nature of our environment, and the visual and spatial nature of sign language. The mix of digital and analog in spoken languages would most likely be quite different if 'reality' (or more precisely our perception of it) was basically auditory rather than visual and spatial. In a sense, spoken languages represent a means by which one 'gives of a sound' to things and ideas which have none. This is confirmed in the one area where the 'reality' about which one wishes to comment or report on is almost purely auditory — speech itself. That is to say, direct quotation in which one repeats spoken words is, especially when intonation patterns and vocal mannerisms of the original speaker are mimicked, a unique and special case of onomatopoeia. In other words, where the users of oral-aural languages have the opportunity to copy 'the sound of reality' they obviously do so. For users of a visual-gestural language to avoid 'the look of reality' would be as odd as users of oral-aural languages having two distinct vocabularies - one for speaking and one for quoting the speech of others.

In sign languages, therefore, there is the potential to incorporate visual and spatial aspects of reality in the signing act. Sign languages 'directly quote' reality, as it were, where they can, and when they can, because they can, and not because they represent some form of primitive pseudo-language. Iconicity may be realised in two ways. First, the form of sign may be iconically motivated. Second, the sign (whether iconic or not) may be inflected (or simply modified) in a way which is itself iconically motivated. In the next section, each of these different types of iconicity will be examined.

### 6.2.3.2 Iconicity and mimesis in sign languages

#### 6.2.3.2.1 (a) Lexical iconicity

Iconicity in sign languages is manifested in a number of ways. On the lexical level, it is commonly observed that the form of a large number of signs, if not the majority, is related in some way to meaning. This relationship is iconically motivated. Iconic signs are a subset of all the signs of a sign language. Though various researchers have divided up signs into different categories (Mandel 1977a), most would agree with Deuchar's three categories of (i) arbitrary signs, (ii) indexic signs and (iii) iconic signs (1984:13). The third class may be virtual (e.g., HOUSE) or substitutive (e.g., STAND). (Mandel divides iconic signs into metonymic, depictive and presentative signs.) Kyle and Woll (1985:114) characterise the situation thus:

Signs often represent some feature of a referent, either in terms of visual properties or of an action. This can either be a 'picture' or an 'icon' of the object or action itself (a 'direct' image) or a part of, or something associated with, the referent (a 'metonymic' image). [...]

These finer distinctions reflect the fact that the degree, kind and source of iconicity varies from sign to sign. For example, the relationship between form and meaning may be self-evident or evident only upon analysis. Indeed, even in cases where no iconicity can be found ('arbitrary' signs), it may be argued that originally such signs were iconically motivated in some way and that this motivation has been lost or obscured over time. Both the lack of historical data and the presence of regular phonological processes of assimilation and reduction often change the character of signs such that it is impossible to reconstruct an underlying or original iconic motivation. Of course, regular processes of semantic change through narrowing and widening of meanings and of semantic shift through metaphorical association must inevitably produce a class of arbitrary signs since the very nexus of form and meaning, which is the essence of iconicity, is broken.

As Kyle & Woll point out, the iconicity of a sign may have its source in the picture-like ('iconic') or action-like ('mimetic') quality of a sign. In the terminology of the dictionary of Auslan (Chapter 7) a sign may be essentially an 'image' or an 'action'. Not only is there no clear cut dividing line between an iconic or a mimetic sign (in a number of cases one can look at a sign as presenting an image of an object or, equally, as presenting an action on, or with the use of, an object) but, also, one could not say that iconic signs represent 'things' and thus function as nominals and that mimetic signs represent 'actions' and thus function as verbals.

Generally speaking, an iconic sign is a sign which looks like an object (which it may or may not represent); and a mimetic sign looks like an action (which it may or may not represent). In other words, iconicity thus refers to the selective representation in a sign of some aspect of an object or action. Imaged-based signs usually represent the object depicted, but may also represent a process associated with the object depicted (rather than the object itself), or an entity or process associated metonymically or metaphorically with the object depicted. That is to say, an image-based sign may be understood nominally, verbally or both. Similarly, action-based signs usually represent the action depicted, but may also represent an entity associated with the action depicted (rather than the action itself), or a process or entity associated metonymically or metaphorically with the action depicted. That is to say, an action-based sign may be understood verbally, nominally or both. A sign may thus isolate some aspect of an action which is closely associated with an object and, thus, even though the sign is 'mimetic' it does not, in fact, represent an action but rather an object. For example, the sign CAR is said to have its origins in the mimetic representation of operating the driving mechanism of an electric tram. Its meaning evolved from 'tram' to 'car'. Today this action is totally irrelevant to the sign's meaning and, indeed, there is a separate and unrelated sign for 'tram'. Indeed, the movement parameter has been simplified and abstracted into a circular motion whereas the original congruent action was a side to side semi-circular movement. (Apparently, the operating mechanism of a tram resembled that of a ship.) Furthermore, this sign CAR cannot be used in the sense of 'operate or drive a car'.

Commonly, however, whether image-based, action-based or arbitrary many signs have both a nominal and verbal interpretation. Most nominals and verbals in Auslan are, in fact, determined either contextually or through a modulation of the movement parameter regardless of the sign's motivation.

**Iconicity and transparency** The degree of iconicity that motivates a sign is as important as the source and kind of the iconicity. The fundamental mistake of many observers has been to confuse iconicity with transparent intelligibility or universality. The fact that the relationship between the signifier and the signified may be motivated iconically need not be transparently obvious. Indeed, iconicity is mediated by knowledge of the culture, and the code and its modality. Brennan (1986) points out, for example, that the iconicity and relatedness of the ASL signs SCHOOL and COLLEGE is neither evident or intelligible to speakers of other sign languages. The sign SCHOOL is mimetic for 'clapping the hands' which is associated with a teacher calling a class to order and, by extension, to 'school' itself. The sign COLLEGE takes as its base the configuration of SCHOOL and adds an

iconic representation of 'height', 'going above', or 'moving up grades' which is associated with 'college' ('college' as a 'big or higher school'). That the actions of clapping the hands should mean 'school' and not 'applause', 'bounce', 'flat' and any number of other plausible meanings is an entirely conventional and contingent fact of that sign language. It is only from the existence of the conventional sign SCHOOL that one is able to generate COLLEGE, even if that process is itself iconic.

Examples such as these do not argue for a reduced importance of iconicity in sign languages, as was previously thought, rather they argue against the naive notion that iconicity equals transparency.

Despite all pervasive iconicity in the lexicon of sign languages, relatively few signs are intelligible to non-signers and unless a further distinction is made, the qualifiers 'iconic' or 'mimetic' are of dubious worth. This finer distinction can be made if signs are ranked according to the degree to which iconicity or mimesis is responsible for the sign itself. The degree of iconicity or mimesis in a sign can be roughly ranked on a four part scale, based on the perceptions of a non-signer: transparent signs, translucent signs, obscure signs, and opaque signs.

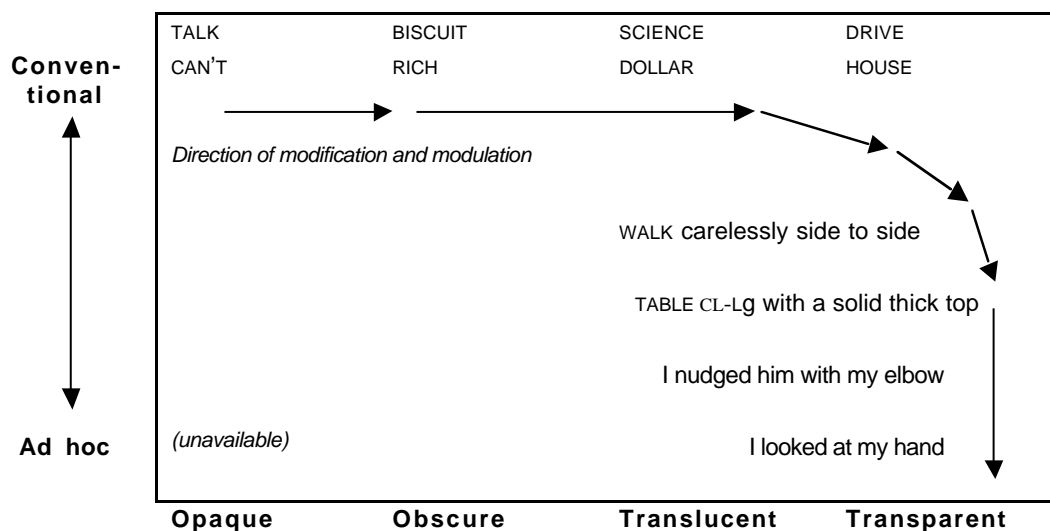


Figure 6.1 Degrees of iconic motivation in signs

The level of iconicity of a sign may be established in a three major ways. First, there are the transparent signs of which the iconicity is certain. The meaning of a transparent sign is evident to most naive observers who share the same social and cultural background as the community of signers. For example, signs such as RUN, COMB, NO, YOU, HOUSE are transparent. In Figure 6.1 DRIVE (mimetic: 'turning a steering wheel') and HOUSE (iconic: 'the shape of the roof') are two examples of conventional transparent signs. This should not be construed to mean that transparent signs are non-conventional: both the selected features of the represented object or action and the formational properties of the sign as actually realised are *culturally and linguistically determined from the outset*. The number or percentage of transparent signs in the sign lexicon is relatively small.

Second, there are the translucent signs of which the iconicity is established paradigmatically by comparing like-formed signs with one another (e.g., the two handshape representing 'legs') and with related transparent signs if available. The introduction to each section of the dictionary gives numerous examples of how the not-so-obvious iconicity of signs can be confirmed paradigmatically. One can have a great deal of confidence about the iconic motivation of such signs. Some translucent signs may be evident to naive observers (usually only if observed contextually rather than cited), though for most naive observers the meaning will not be apparent. However, the majority of naive observers will

understand why the sign is as it is when told the meaning. Thus, once aware of the meaning of a translucent sign most observers will be able to make an informed connection between its form and its meaning (cf. Klima, Bellugi et al 1979:22-26). For example, in Figure 6.1 the signs SCIENCE (mimetic: ‘pouring liquids from one test tube to another’) and DOLLAR (iconic: ‘the shape of a note’) are placed to the left of DRIVE and HOUSE to indicate weaker iconicity.

It stands to reason that experienced adult signers tend to regard these translucent signs as actually transparent. This helps account for the fact that one of the features observed in signing communities has been that new, foreign or unknown signs which enter the community are rationalised or explained in terms of real or imagined iconicity or mimesis.

Third, there are the obscure signs of which we have only anecdotal information (usually written in old manuals). These and other folk etymologies are traditional explanations of which we have no certainty except to know sometimes that they are actually completely wrong. Folk etymologies may be inaccurate but useful if they contribute to a sign’s productivity “because a picture that a signer thinks he sees may affect his use of gesture, etymologically correct or not.” (Mandel 1977a:62). Native signers’ perception of a sign’s iconicity (and, hence, its etymology) plays a part in how that sign can be pronounced to produce different meanings (cf. Mandel 1977a:62, DeMatteo 1977:109, Klima, Bellugi et al 1979:33), and even alter the citation form. An Auslan example is the sign CLUB (reported etymology from BSL CHURCH which is itself derived from an iconic action of ‘tolling the church bell’) which is produced by some signers with a forward action rather than an up and down one. On enquiry those who produce the sign in the new variant form were all found to be under the impression that the sign is derived from an iconic action of ‘holding a club banner’. Of course, this observation is only true for signers; it is irrelevant what non-signers think. Assumed etymologies can also influence spoken languages as Kyle & Woll (1985:123) have shown.

Etymologically or historically speaking, obscure signs may have an iconic or mimetic element. However, this is not apparent even when one knows the meaning of the sign. One needs to be told how the meaning and the sign form are related; for example, in the signs BISCUIT (mimetic: ‘breaking a cracker biscuit under one’s elbow’) or RICH (iconic/mimetic: ‘stroking/outlining the fine garments typically worn by a rich person’). In Figure 6.1 the signs BISCUIT and RICH are placed to the left to indicate a low ‘Iconicity’. Thus the iconicity of obscure signs is dubious, unable to be verified, or subject to contesting ‘etymologies’.

Opaque signs have no known discernible element of iconicity or mimesis and are placed to the extreme left in Figure 6.1 (e.g., TALK). It is a moot point whether such signs were originally iconic or not.

#### **6.2.3.2.2 (b) Morpho-syntactic iconicity**

On the morpho-syntactic level, the detailed discussion in Chapter 4 on the regular modifications that signs may undergo (e.g., the use of space, repetition, manner of execution and so on) clearly shows that many of these morphological processes are mimetic or iconic in nature (cf. Klima, Bellugi et al 1979:179) or, with regard to some facial expressions, even indexical (see Chapter 5). For example, commenting on the motivation of many aspectual modifications of sign stems Klima, Bellugi et al (1979:270-271) write:

These distinctions are made by modulatory forms that are not incongruent with their meanings: permanent or enduring states are characterised by continuous movements, recurring states by repeated end-marked movements, intensification of a state or quality by tense rapid movement, and so forth. These grammatical processes operate with great regularity on the lexical items of the language, their shape determined by the sign’s formational parameters without regard for its iconicity.[...]. When a sign undergoes morphological operations, then, the iconicity

of the sign is sometimes submerged—though submerged by operations that themselves may be in some respects representational.

The use of reduplication for intensification and pluralisation; the modification of designation for number incorporation or verisimilitude in verbs of prehension; the modification of tabulation to incorporate body parts as literal sites of an action; the modification of orientation for verisimilitude of placement in the signing space or to show the direction of an action; the repetition of signation for number and, together with speed, for aspect; the change in signation directionality for marking agreement with person, grammatical role and/or location; and the use of facial expression congruent with manner and attitude of an action are all examples of how iconicity is manifested at the morpho-syntactic level.

As can be seen from Figure 6.1 there is a ‘direction of modification’ moving from the highly conventional to the ‘ad hoc’ with increasing degrees of iconicity. This represents the continuum in sign languages from conventional and/or citation forms to modulated forms and pantomime. It is in this area that the influence of iconicity on the syntax of sign languages is most apparent.

#### **6.2.3.2.3 (c) Syntactic iconicity**

On the syntactic level, the relationship between form and meaning can appear to be quite abstract and hence more problematic. As mentioned earlier, at these higher levels of organization, both spoken and sign languages display iconicity in the same kind of way. For example, both modes observe a certain temporal congruity with the world they represent: an order which cannot be violated unless the language provides ‘diacritics’ of various kinds (be they separate lexical items or morphological markers of one form or another) that allow the pack to be shuffled (Haiman 1985). The syntax of conditional clauses in Auslan and other sign languages is a prime example of this; when formed by the juxtaposition of condition and result or consequence (with a distinctive intonation contour on the condition) that which comes chronologically first, the condition, must be signed first. It is only if there is the addition of a lexical marker to introduce the condition that the two clauses may be inverted.

On another level, as mentioned earlier, subject first constructions in Auslan also reflect syntactic iconicity. When sign directionality and location are not being used to mark subject and predicate in Auslan, it is true that the sign order tends to be SVO (i.e., actor before acted upon in the world of events). Since sign languages are temporally linear as well as spatially linear (at least for those signs that move or are placed in neutral space), they observe a spatial congruity as well. This is reflected in person deixis, the use of relative locations in the signing space to encode real world relationships, and the use of directional verb agreement.

#### **6.2.3.3 Iconicity in the description of sign languages**

In many respects the iconicity of sign languages has been considered by most sign linguists to be a non-issue for some time. The consensus is that iconicity had been dealt with, and dispensed with, by the late seventies: sign languages were clearly not iconic in the naive sense (i.e., simply gestures and mime or pictures drawn in the air which are transparently interpretable by all viewers) nor was the undeniable element of iconicity in such languages seen to be of particular relevance in describing sign languages (i.e., the language and terminology of normal linguistics can and should be applied) (Stokoe 1975:207, Siple 1982, Padden 1977, 1988).

A number of arguments have been used to support the view that the presence of iconicity in sign languages is neither significant in terms of linguistic patterning nor in terms of appropriate analytical concepts or terminology. Though there is little justification in reviewing all these arguments in detail here (Mayberry (1977) points out it has been a frequent and tedious feature of sign language research that each researcher has felt obliged

to reaffirm research which supports the above view), it is nonetheless necessary to briefly list the major findings researchers have made, before reconsidering its central role in sign languages. Mayberry (1977:353) is only one of many researchers who presents a detailed list and review of relevant research on iconicity and the 'linguistic status' of sign languages.

First, sign languages are not universal nor mutually intelligible (Markowicz 1977, 1980; Stokoe 1972, 1974, among others). The iconicity of such signs does not result in the universality in the form of signs and is thus considered to be of little importance. The signs of one sign language are, on the whole, inaccessible to non-signers or signers of another sign language. The iconicity of all but a very small set of (culturally) transparent signs seems to have little effect on the interpretability or 'guessability' of signs (Morrissey 1986). Though it was established that the more iconic a sign the more likely its meaning was to be guessable by non- or foreign signers, the import of this observation is dubious since relatively few signs in a sign language corpus have this level of iconic transparency. Estimates vary from as high as 30% of the lexicon (Hoeman 1975), to lower than 10% of the lexicon (Klima, Bellugi et al 1976:22). On the basis of the data in Chapter 7, I estimate that no more than 5% of Auslan signs are transparently iconic.

Second, different sign languages select different salient features of a particular object, action, concept or process to represent. That is to say, signs are conventional though highly motivated. That the signs are conventional is clearly reflected in the fact that the representation process is selective (e.g., part standing for whole) and stable in the community (Deuchar 1984:13) as the now famous and oft quoted examples given of 'tree' in Chinese, Danish and American sign languages has shown (Klima, Bellugi et al 1979:21). One sign language might base itself on tracing the outline of foliage with the tips of the fingers, one on representing the trunk and branches with an upright forearm and spread fingers, one on metaphorically transferring the sign for spray (of water) to foliage, and one to tracing the form of a vertical trunk with two cupped hands. Without context all are mutually unintelligible or at least chronically misinterpretable. Once again we see that the fact that signs are conventional seems to be far more important than that they are 'arbitrary'. Underlying iconicity notwithstanding, it appears that, for all but a small percentage of vocabularies, iconicity is almost irrelevant in the comparison of sign language with sign language.

Third, a large number of so-called iconic signs have rival and even conflicting folk-etymologies which call into question the supposed iconicity of many signs (Kyle & Woll 1985:123). Even when folk-etymologies are in agreement, they do not necessarily correctly reflect etymological tradition. That is, many so-called 'etymologies' may, in fact, be post-factum rationalisations.

Fourth, iconic signs are produced within certain phonological constraints relating to handshape, movement and hand arrangement (Klima, Bellugi et al 1979:11-13). That is, their iconicity and verisimilitude are compromised from the outset.

Fifth, when analysis is made of slips of the hand and of recall strategies and confusion matrices, it is clear that categorical phonology-based perception and production overrides the often overt iconicity of signs and of their component aspects. The signs of a sign language are like the words of a spoken language in that they are processed according to the phonology of the language medium in question despite the obvious iconic 'picture-like' or 'mime-like' quality of much of the sign lexicon. Recall of signs seems not to be a function of iconicity. (Klima, Bellugi et al 1979; Bellugi, Klima, & Siple 1975; Bellugi & Siple 1974; Siple 1982:320; Siple, Caccamise & Brewer 1985:321).

Sixth, signs have been seen to lose iconicity over time in response to regular language-internal formational processes such as progressive and regressive assimilation (Frishberg 1975, Klima, Bellugi et al 1979:27-30, Frishberg 1979:67-83, Rimor et al 1984, and so on). Indeed, on the iconicity scale of transparent to opaque, it would appear that obscure and opaque signs are what once were transparent or translucent analogs that have become increasingly digitalised (abstracted or simplified) over time. After all sign linguists have argued, the prosodic and paralinguistic characteristics of speech are themselves often like-

wise analog (i.e., 'iconic') yet are organized and process phonologically (Halliday 1985:9, Siple 1982:317).

Seventh, some regular processes of sign modification (e.g., intensification) actually appear to contradict or at least submerge the iconicity of the base sign (Klima, Bellugi et al 1979:30-32, 270-271). For example, the sign FAST made with great muscle tension would be produced *very slowly*, yet mean 'very fast, swift or rapid'. (This phenomenon is, however, open to another interpretation, at least in Auslan. The iconicity in such cases is the production of signs with greater muscle tension to intensify the sign's meaning. In the above example, the increased muscular tension and stress would slow down the production of the sign without a corresponding meaning of 'slowness'. This use of stress and muscle tension is not unlike sentence stress in spoken languages which is likewise iconic or indexical. As already argued in Chapter 4, the word 'tiny' said with great stress would be lengthened to *tiiiiiny* (and could even be changed to 'teeny') and mean 'very small, minuscule, minute' even though the word itself has become 'larger'.)

Finally, in native sign acquisition iconicity was found to be of no importance (Newport & Supalla 1980, Meier 1981, Supalla 1982, among others) and, more specifically, in the acquisition of morphological systems found in ASL (and other sign languages) such as person deixis, spatial marking for verb agreement and marking the distinction between nouns and verbs, researchers (e.g., Meier 1981) have found that "iconicity has no facilitating effect" (Bellugi & Klima 1982). Reporting on the findings of Petitto (1982) regarding errors in the acquisition of person deixis in ASL (see Chapter 4), Bellugi & Klima (1982:8) write:

It appears to make little difference, then, whether the pronominal terms are symbolised by arbitrary streams of sound segments as in spoken languages, or by pointing signs which are indistinguishable in form from pointing gestures. Deaf children, just as do hearing children, appear to have problems acquiring systems that mark shifting reference and require adopting shifting perspectives.

Bellugi & Klima find similar errors, which are akin to 'overgeneralizations', in the acquisition of the verb agreement system. Indeed, the assumed facilitating effect of iconicity for adult learners of a sign language, as an aide-de-memoire, seems not to be supported (Brown 1980; Mandel 1977b).

It is fully comprehensible why sign linguists in the past have been 'iconicity shy'. In the intellectual climate twenty-five years ago one had a difficult task in trying to convince anyone that sign languages were languages. Before Stokoe, the furthest the most enlightened were prepared to go was to concede that perhaps sign languages were modified parasitic signed forms of host spoken languages; for the majority, however, sign languages were not even codes — they were highly iconic picture-based concrete modes of communication unable to express abstract or complex ideas. Since iconicity was not perceived to be a feature of bona fide linguistic systems, the sign linguist's task was to play down if not contradict the assumed iconicity of signs. As a new area of linguistic investigation, sign languages needed to be proved to be languages. The ease with which myths of concreteness or universality could be disproved (e.g., Markowicz 1977, 1980) tempted many sign linguists to play down, trivialise or even deny the iconicity of signs once the conventional nature of those signs had been established.

It is hardly surprising, then, that discussion of iconicity in sign languages (e.g., DeMatteo 1977, Mandel 1977a) has been looked upon with suspicion for some time. Certainly the explanatory power and descriptive adequacy of iconicity has been questioned. Wilbur (1979:154) criticises DeMatteo and others for the primacy they give to iconicity in ASL grammar:

DeMatteo (1977) suggests that iconicity must be incorporated into the grammar of ASL, not simply as part of it, but rather as the base of it.[...] To say that iconicity is

part of the structure of ASL is one thing; to say that it is the basis for the linguistic description of ASL is quite another.

In short Wilbur believes that “describing something as iconic may be true, but it is also linguistically insufficient.” (1979:156). In some quarters, the essential iconicity of sign languages has been challenged. Edwards & Ladd (1983:149) for example write: “This assumption of iconicity [in sign language], however, can be shown to be false.” Other linguists, like Deuchar (1984:18), have reacted to the wider understanding of how a high degree of iconicity in a language may or may not influence linguistic patterning thus:

So while the presence of iconicity in BSL can be recognized, its significance should not be overestimated. This is for the following reasons: arbitrariness is also found in the language; iconicity in BSL does not preclude some degree of conventionality; and psycholinguistic evidence suggests that iconicity does not appear to play a significant role for native signers in their acquisition and use of sign language.

It is possible, however, that effectively ignoring the iconic dimension of sign language organization can result in a failure, by omission, to state the obvious (e.g., that a particular handshape or movement can be described or explained in terms of iconicity) or in an overly formal misrepresentation of phenomena by actually denying any role to iconicity. However, my purpose here is neither to explicate nor resolve the theoretical debate as to the appropriate level at which iconicity is to be introduced in the explanation of sign language organization, both lexical and grammatical. Rather it is simply to recognize its all pervasiveness and consider how it may contribute to morpho-syntactic and syntactic convergence in sign languages.

#### **6.2.3.4 Iconicity and grammatical convergence in sign languages**

The role of iconicity in conditioning grammatical patterning in sign languages cannot be understood unless one realises that the iconicity of a sign can occur along a number of dimensions: one is the extent to which the visual shape of a sign is an icon of its meaning, another is the extent to which the displacement and behaviour of a sign is an analog of its meaning (cf. DeMatteo 1977:116).

Most discussions of iconicity have dwelt on the understanding of iconicity as a shape rather than as an analog. Observations of the suppression and even loss of iconicity in sign languages through increasing stylisation and conventionalisation over time were made in the context of the first kind of iconicity. Unlike ‘analog-iconic’ signs, any movement in the citation form of ‘shape-iconic’ signs does not represent a real or metaphorical displacement (of the referent) through space. Mandel (1977a:81) refers to this phenomenon as ‘shape iconicity’ and ‘locative iconicity’. Even though ‘shape-iconic’ signs which mimic their referent necessarily have some movement, that movement does not in the production of the sign represent a displacement (of the referent): it is simply an abstracted movement associated with the referent and it is highly likely to be influenced by the regular phonological processes of the language that render it, and other aspects of the sign, less iconic over time.

In this sense, sign languages are similar to writing systems to the extent to which the overall ‘Gestalt’ of a sign, which is perceived as a shape or a form, often undergoes ‘simplification’ (Baron 1981, Halliday 1985, Sampson 1985). As Haiman (1985:10) explains with reference to scripts:

In the historical development of any sign system we encounter countless examples of this phenomenon of de-iconisation, or conventionalisation. (The roman numeral

V originated as a palm with thumb opposed; the letter A for 'ox' as the head of an ox; and the Chinese character for 'man' , as a stick figure more like .)

In just the same way that shapes of writing systems become regularised and simplified according to "the materials that are used for writing on and with: incising on bone, casting in bronze, chiselling in clay, painting on silk, and so on" (Halliday 1985:15) signs have been shown to simplify according to the modality of sign languages (Frishberg 1975, 1979; Battison 1974, 1978).

The loss of iconic sign transparency of form over time would thus appear to be almost inevitable in the evolution of sign languages. Loss of iconicity of form over time is thus not remarkable, though its absence would be. Visual simplification, together with the fact that any 'original' signs were themselves highly selective and rarely transparent iconic or mimetic representations (as we have seen, reality is over-rich in this respect), accounts for the great bulk of lexical diversity and mutual unintelligibility between sign languages. Iconicity of form is indeed lexically neutral: it neither causes nor undoes similarity of representation; or rather, it does both.

Ironically, the appeal to various sign languages to establish the irrelevancy of iconicity on the lexical level appears to argue for its importance on the grammatical level. The reason for this is that, in addition to exploiting temporal syntactic iconicity which is also available to spoken languages (see above), grammatical patterning in sign languages also makes use of the type of iconicity in which it is not the visual shape or form of the sign which is salient but its movement through the signing space. Indeed, its movement through the signing space is an analog of the movement of the referent. An example of this is the verb agreement system for person and grammatical role reported for a number of sign languages. This system is based on location and direction of movement of a sign through the signing space. A sign can only exploit the locative and directional system if it has a movement which displaces it through the signing space. Signs which do not have such a displacement through the signing space cannot inflect for direction (they can still assume inflection for aspect though - what Padden (1983, 1988) called 'plain' verbs).

As detailed in Chapters 4 and 5, agreement is achieved with such signs by locating referents in the signing space using a variety of techniques and by moving the verbal sign to or from a location, or between two locations. For example,

(132) MAN>3a HORSE3b 3aHIT3b  
*The man hit the horse.*

(133) MONEY, 1GIVE2 FINISH  
*I've given you the money.*

(134) \_\_\_\_\_ ?  
SHOULD 1GIVE2 MONEY NOW  
*Should I give you the money now?*

(135) \_\_\_\_\_ ?  
WHEN 3aLOOK1, SHOULD PRO1 3b[centre table]PUT3a, CL-C bottle  
*Should I have passed her the sauce when she looked at me?*  
*(When she looked at me, should I have passed the bottle of sauce from the centre of the table to her?)*

As the last example makes clear the movement through space is clearly an analog and agrees with locative source and locative goal which just happens to coincide with relevant grammatical roles of agent and patient in the previous two examples. That is to say, analog-iconic signs exploit this very identity to 'grammaticalize' role in situations in which there is only metaphorical or figurative 'transference', as in the following examples.

(136) WOMAN<3a PREGNANT, MAN>3b FATHER, 3aFORCE3b MARRY.  
*The pregnant woman forced the man to marry her.*

(137) WOMAN<3a PREGNANT, MAN>3b FATHER, 3bFORCE3a ABORTION.

*The father forced the pregnant woman to have an abortion.*

Thus literal locative meanings are at the basis of the locative/directional system in sign languages. These are extended to abstract domains and are ‘grammaticalised’ and ‘formalised’. The literal meaning of direction and location is replaced by a metaphorical one which really encodes role. Signs which can change in location and direction for verb agreement have this feature in common: they all use the signing space as an (analog) space. They have a movement which is to or from a location in neutral signing space and that movement is part of the meaning of the sign (i.e., it is understood as a direct or metaphorical analog of displacement through and/or to a location in space). This is particularly evident in the use of proform classifiers. For example,

(138) CAR PROCL-B horizontal wide straight shape =

PROCL-B vehicle wander upward across

*The car wound its way up the hillside.*

A similar example is to be found in Supalla (1986:205). The only difference in the Auslan and ASL form of this utterance would be the respective form of the lexical specifier sign ‘car’ (where not available from context) and the appropriate proform classifier for ‘vehicle’ in each sign language (the 3 handshape for ASL and the B handshape in Auslan).

We should note in this context that Auslan and other sign languages appear to have two kinds of signs in the lexicon due to processes of simplification and conventionalisation: a) an arbitrary or frozen lexicon in which signs are used in ways which often ignore or even contradict their inherent iconicity and b) a productive lexicon in which the mimetic or iconic aspect of a sign is always significant (cf. Supalla 1982). Although the simplification of ‘shape-iconic’ signs and the loss of a ‘literal’ reading of direction and location in ‘analog-iconic’ signs are probably both part of the development of frozen or ‘lexicalised’ signs, it is rare for an ‘analog-iconic’ sign to become part of the frozen lexicon since its movement through space is always significant. Signs that move through the signing space do, however, have a citation form where the iconicity of the direction and manner of the movement is neutralised. These are not, in this sense, frozen signs.

It would seem that the signing space is an analog or continuous space in which it is difficult, if not impossible, to isolate discrete units. That is to say, unless a sign is articulated with respect to a primary or secondary tabulation, its movement through the signing space is interpreted as an analog of movement to be associated with the referent. Neutral space is not discrete enough to anchor signs, whereas the body proper has a multitude of potential discrete locations (see Chapter 3). The directions and cardinal points of neutral space are universal, relative and limited. They are essentially limited to up and down implying high and low; to and fro implying near and far or the signer and the addressee; side to side implying left and right or ‘between two other entities’; and, possibly, a number of associated ‘diagonals’ (e.g., up left to down right, near right to far left, etc.). Since movement and location must thus always be relative, it is the relative displacement or relative location and movement of a sign which is the essence of its meaning. Thus, apart from these limited oppositions, movement through the signing space is continuous and the richness it gives in representing displacement is balanced by its ‘lexical paucity’. Hobson (1975:232) comments:

The departure from natural languages seems clear in the encoding of spatial information where in some cases ASL is analog rather than categorical in that continuous variation within the code is mapped onto continuous aspects of people’s spatial experiences.

Though signs which have meaningful movement and location in this sense often have citation forms in which this significance is down-played or neutralised (they are produced

in elicited sentences or at the beginning of narratives or conversations), once a context has been established and the signing space assigned with relative meanings, signers find it almost impossible not to give such signs a location or movement which is not an analog of the intended meaning latent in that sign. Though otherwise optional, the direction or location must be made meaningful if arguments of the verb are not expressed overtly.

Not surprisingly one finds that in various sign languages the signs that do exploit movement and location in this sense all share semantic features with each other and with the class of similar signs in another sign language (see the comparison of ASL and Italian Sign Language in Pizzuto 1985). They are verbs of location, motion, displacement and manipulation. For example, a sign which we may gloss as, say, GIVE in several sign languages may have quite different handshapes in each, may be one-handed in some, and two-handed or double-handed in others. The various signs for GIVE may thus be mutually unintelligible or chronically misinterpretable. Yet the iconic value of the movement parameter will be identical in all sign languages (the hand or hands going from the giver to the receiver possibly in a shallow upwards arc). If this movement is in fact an analog of movement through space, as it indeed is, then agreement for locative source and goal or agent and patient will be achieved in the same way in all the sign languages. Aspectual inflections and modulations for manner being likewise iconic will also be identical. This explains the identity across sign languages of morphological features of verb signs which exploit this parameter.

Just as there appears to be no languages in which stories are regularly told chronologically backwards so it is that there are no sign languages (as far as I know) in which movement towards the self regularly encodes a meaning of movement away from the self unless, of course, the self has been assigned another location in the signing space and the location of the signer assigned to some other person, entity or location. Regardless of whether one was operating in a system of relative or absolute directions (as some Australian Aboriginal signing systems have been reported to be), moving from point A to point B can never be interpreted as going from point B to point A irrespective of the attributes of the locations. This appears to have implications beyond simply the null representation of temporal and spatial relations. This is evidenced by the existence of languages (spoken and signed) in which the conditional is *only* expressed by the conditional clause in simple parataxis (or juxtaposition) with its consequent, and evidenced by the existence of sign languages where person and grammatical role are encoded spatially.

The all pervasive iconicity of sign languages can thus be seen to contribute to a convergence of grammatical organization in the locative and directional system, despite the fact that it does not contribute to lexical similarity except in the transparent area of the lexicon. Unlike other signs of a sign language there is a good reason why this system of verb signs would not lose the iconicity of their movement parameter over time. Though the movement parameter of such signs may be dramatically reduced in the citation or 'uninflected' form, the fact that such signs have no discrete 'anchor' point in space that would permit the spatial iconicity to be 'bleached' from them ensures that it is regularly activated in discourse (cf. DeMatteo 1977:117). If this were not so, one would not expect to see such uniformity across sign languages in this area; rather one would expect to see a series of uneven developments and language specific conventionalisation as we do elsewhere in the lexicon.

### 6.3 Orality and literacy

A neglected yet important dimension in the description of sign languages and of communities that use sign languages relates to literacy and writing. Communities that use sign languages can be regarded as essentially 'oral' communities, if that is not a contradiction in terms, in that the languages of these communities have no written form. Signing communities display features common to oral non- or pre-literate societies in the way that language is perceived and used (cf. Maxwell 1985). Sign languages and the languages of

other non-literate communities that use spoken languages need to be analysed with caution since the concepts of traditional grammar, notions of ‘grammaticality’ and even certain grammatical patterns are closely linked, in the first instance, to the existence of writing, as such, and, in the second, to the access to literacy that certain groups of individuals have in a society and the general rate of literacy in any given society (Sampson 1980, Maranda & Maranda 1971). Furthermore, writing itself may be reserved in a community for the exclusive representation of another (foreign, prestigious, sacred or dead) language which has a special position in that community, and never to write the language of the community itself.

No sign language has a script and none has a written literature. Any literacy that a deaf person might have is of the host spoken language. There is no sense, at the moment, in which one can be literate in Auslan, ASL or any sign language. (Though Sutton Sign Writing (Sutton 1981) is one significant attempt to develop a script for ASL and a culture of writing in ASL and, potentially, any sign language; it has yet to have more than just a handful of practitioners.) Furthermore, literacy in the host spoken language is often extremely poor and incomplete with many deaf adults having the reading levels of, say, eight year-olds while others are functionally illiterate. Together these two factors — illiteracy in sign (or, better, the ‘orality’ of the signing community) and poor literacy or illiteracy in the host spoken language — would appear to shelter the language of signing communities from some of the effects of literacy.

The purpose of this section is to draw attention to the degree to which the evolution and functioning of sign languages ‘outside’ literacy may impact on the form of sign languages and, hence, once again, to a degree of convergence in their organization. First, I will examine some of the consequences of orality on the perceptions of language and of grammaticality. Second, I will look at some of the grammatical consequences of orality. Finally, I will briefly look at literacy in the host spoken language and how this may also have a similar impact in disparate signing communities and, consequently, the form of sign languages.

### 6.3.1 Awareness of language and grammar

It has been regularly observed that language is very much outside of awareness and that to become self-reflective and conscious to any significant extent about language entails one very important development — writing. On the impact of writing Halliday (1985:36) cites Boas (*Introduction to the Handbook of American Indian Languages*, pp 56, 59)

It would seem that the essential difference between linguistic phenomena and other ethnological phenomena is, that the linguistic classifications never rise into consciousness ... the categories which are formed always remain unconscious ... Cases are rare in which a people have begun to speculate about linguistic categories.

and himself continues

When language comes to be written down, people become aware of it; they start to speculate about it, and this is the origin of linguistics. [...] The grammar, of course, was a grammar of the written language. People were still unconscious of the nature of spontaneous conversation, and have remained so to this day; but they became aware of the structure of language through a study of what was written down.

The various notions of ‘language’ which can be found among different communities is in part a reflection of the ways of thinking about language which are encouraged by or a result of widespread literacy.

Linguists such as Le Page & Tabouret-Keller (1985:188-191), among others, have pointed out that the word 'language' can be used to mean several slightly different, if related, concepts. Two of these concepts are common to all language users — oral or literate. In one conception 'language' can mean native language or mother tongue. By 'mother tongue' is meant not only the language that chronologically comes first in one's life but also the language which is most closely related to one's sense of identity, one's 'real self'. It is the language of one's peer group. It is important to remember that only a small proportion of sign language users have sign language as their literal 'mother tongue' (since most deaf people are born to hearing parents who cannot sign — see Chapter 2). Of course, many deaf people have sign language as their primary or first 'real' language forming an integral and indispensable part of their self identity.

In the other conception 'language' can mean actual behaviour — what individuals actually say and sign, i.e., the outwardly observable behaviour. It is in this sense that we say things like "His language became more and more confused as he got drunker." This word can be used in a peculiar (and offensive) way by hearing people talking about deaf people when they say "So and so has no language" when they mean that the individual has very little or virtually no verbal behaviour but strongly implying that the individual has no language of any kind at all, thereby confusing verbal behaviour with language behaviour.

Two other conceptions of language are particular to worldviews made possible by literacy. In the literate world 'language' means not only written language but standard written language: English, French, Chinese, Spanish etc. In the first instance this means that the fact of literacy itself demands that certain theoretical and practical solutions be devised for representing the continuous stream of speech by breaking it up into regular units which can be represented. Even the concept 'word' (rather than 'name'), let alone syllable or minimal sound unit like phoneme, may be a slippery one for individuals from oral cultures. As the existence of ideograms, characteries, syllabaries and alphabets (Halliday 1985:12-28) make clear, the solutions are as diverse as are the languages themselves. In the second instance literacy means that there develops a clear notion of 'standard language' and 'correct language'. Ong (1982:7-8) writes:

Writing, commitment of the word to space, enlarges the potentiality of language almost beyond measure, restructures thought, and in the process converts a certain few dialects into 'grapholects' (Haugen 1966; Hirsh 1977, pp 43-8). A grapholect is a transdialectal language formed by deep commitment to writing. Writing gives a grapholect a power far exceeding that of any purely oral dialect. The grapholect known as standard English has accessible for use a recorded vocabulary of at least a million and a half words, of which not only the present meanings but also hundreds of thousands of past meanings are known, A simply oral dialect will commonly have resources of only a few thousand words, and its users will have virtually no knowledge of the real semantic history of any of these words. (1982:7-8)

Where grapholects exist, 'correct' grammar and usage are popularly interpreted as the grammar and usage of the grapholect itself to the exclusion of the grammar and usage of other dialects. (1982:107-108)

The languages in question usually have a long history, have been written down for a long time, have an extensive literature, and have been studied in depth. The study of these languages has been based on an analysis of written literature. This description of a language is found in grammars and dictionaries which often form the basis of the rules of the language which are taught in schools. Many of their users are literate, and whether literate or not, most people in such language communities consider the written form of the language to be correct, have very clear ideas of good and bad grammar, and are often intoler-

ant of 'non-standard' usage, especially in the written form. It is this kind of prescriptive language which is taught in schools in terms of 'rules' of grammar and correct usage. Dictionaries and grammars of such languages are usually more than just descriptions; they are essentially manuals of 'correct' usage comprising of rules that tell people how to use the language 'correctly'. As Halliday (1985:30) explains:

As a rule, however, writing systems tend to engender conformity once they come into general use; partly for convenience, and partly because the development of writing tends to be associated with normative processes anyway — the emergence of a literary, religious, learned or general 'standard' language that is highly valued (and therefore to be kept 'pure') and that may be deliberately planned and even legislated for.

Most languages have (or have had) no descriptions of their grammar simply because most languages have never been written down. Ong (1985:7) estimates that only about 106 languages out of all the thousands of languages spoken in human history, including the three thousand spoken languages that are still in use, have ever been written down or produced a literature, and thus, in a sense, have ever been studied. The opportunity to reflect on the structure of language in detail, to make explicit rules for language use and to develop proscriptive grammars seems to arise only when languages are written down and are often aimed at halting simplification processes (which may themselves have been brought into awareness through writing). That is to say speech communities do not develop a body of conscious shared knowledge about the language which is transmitted and taught to people and which may make them intolerant of certain forms of expression unless there is the institution of writing. The fact that writing is not just simply a mechanical representation of speech is more than clearly shown by the difficulty which many speakers experience in writing 'correctly'. Baron (1981:7) comments:

What teachers of English composition are painfully aware of, though, is that many native speakers—and native writers—are unable to produce grammatical written prose, no matter how much time they are given to ponder their work.

The other conception of language in the literate worldview is that of linguistics itself in which 'a language' is the sum total of the knowledge of the linguistic behaviour of a speech (or sign) community that one is able to glean from scientific investigation. A grammar is, in this sense, a representation of the language system that underlies language behaviour and is always present, if unconscious, irrespective of collective notions of grammaticalness and irrespective of the presence or absence of writing. Speakers' judgements of grammaticalness is thus a variable rather than absolute property of languages.

Whether descriptive in this sense or prescriptive in the former sense, the very existence of a written record, such as a grammar or dictionary, codifies a language and puts the language in particular order. The recognition and status the speech community is likely to attach to the book is, in its turn, likely to standardise and further encourage the process of codification. Since one is able to appeal to the written account of a language for guidance on language use, a dictionary or a grammar is likely to make a word or expression 'wrong', if it is not recorded, simply because over time dictionaries and grammars gain power and are treated as authorities. The rules of the grammar of a language are not all equal since some are obligatory and some are optional depending on whether breaking them makes sentences meaningless or not or whether breaking (or observing) them has social value or significance recognized and sanctioned in that language community. Thus literacy and the study of language will contribute to the standardisation and modification of the written language and the spoken registers closely associated with it.

In this context we can see that since sign languages have no written form it is not surprising that signers in developed societies appear to have two quite distinct criteria of

judging language behaviour — on the one hand they share those of the general community when referring to the respective host spoken language as codified in its written form and are often highly critical of their own language skills, and on the other hand they share those of non-literate communities when referring to sign language (i.e., they have a much wider and tolerant concept of acceptability which takes into account innovation and improvisation with no clear idea of ‘right’ or ‘wrong’ or even of what is ‘grammatical’ in sign language). Of course, sign codes (e.g., Signed English) are judged as spoken languages are judged.

Even if some of its users have good literacy skills in English, and most do not, the concepts of grammaticalness or correctness seem not to be applied to sign language as they would be to English. *Beautiful, ugly, vivid, clear* or *confusing* are words (i.e., signs) deaf people are more likely to use with respect to signing, not *right* or *wrong*, *correct* or *incorrect*. Though in this respect they are just like the speakers of other languages that lack a written form and history of language study, this situation is further aggravated by the general social attitude, which signers learn at school from teachers who associate language and grammar with writing, that sign language is not a language and has no grammar. One result is that though signers are keen to copy signing they consider to be beautiful or good, they are loath to actually correct someone (deaf or hearing) because of a deep seated ambivalence about what is actually correct which stems, in part, from the belief that sign language has no rules. Not only are signers like the vast majority of all naive language users in that they are “unwilling or unable to identify the principles of sign when questioned by hearing researchers” (Kyle & Woll 1985:27), there is no body of ‘received wisdom’ or ‘prescriptivism’, apart from that relating to English, to which some sectors of the signing community can appeal. Of course, in all speech communities, even in those in which a ‘standard language’ exists and in which literacy and a keen sense of ‘grammaticalness’ is part of virtually everyone’s upbringing, awareness of language is not necessarily what it may seem. Often what we think we do is quite different to what we *actually* do.

It is no surprise that people can often not answer simple questions about their own language since one needs to study a language in order to answer some kinds of questions, but, if one is a native speaker, one doesn’t need to study a language to use it. To reiterate, school or prescriptive grammars are based on writing and have never been based on speech. Since sign languages are *all talking* (i.e., *signing*) and have no written form, it is only to be expected that Deaf people cannot answer simple questions about sign language.

No language which is used as the everyday language of a community and which is handed down generation to generation is ungrammatical in the broad sense of the word. However, it can be argued that contact languages, or pidgins, which are improvised at each encounter by people who do not know each other’s language but who must endeavour to communicate, are highly unpredictable in form and do not have a grammar in the above sense. (The situation changes rapidly if such pidgins become stabilised over time and especially if they become the native language of a community of speakers.) Some of the language interactions between hearing and deaf people can also be described as pidgin-like (cf. Pidgin Sign English) (see 6.5).

### 6.3.2 Grammatical consequences of orality and literacy

When writing is either not known to exist or is not a real and possible dimension of the spoken (or signed) language being used then all linguistic communication must take place in the presence or ear-shot of an interlocutor. The critical difference between oral exchanges and written exchanges is the presence or absence of the interlocutor. Furthermore, spoken (or signed) exchanges occur in the context of the real world and of events occurring in it and in the context of extra- and para-linguistic events involving the interlocutors as well as in the context of the linguistic structure of utterances themselves and of the text created by the utterances of the parties to the exchange. That is to say, oral exchanges rely

more on the immediate environment (including the responses of the interlocutor) to aid in interpretation than do written exchanges. Ong (1985) explains:

Oral structures often look to pragmatics [...]. Chirographic structures look more to syntactics (organization of the discourse itself), as Givón has suggested (1979). Written discourse develops more elaborate and fixed grammar than oral discourse does because to provide meaning it is more dependent simply upon linguistic structure, since it lacks the normal full existential context which surround oral discourse and help determine meaning in oral discourse somewhat independently of grammar. (pp 37-8)

[...] written words sharpen analysis, for the individual words are called on to do more. To make yourself clear without gesture, without facial expression, without intonation, without a real hearer, you have to foresee circumspectly all possible meanings a statement may have for any possible reader in any possible situation, and you have to make your language work so as to come clear all by itself, with no existential context. The need for this exquisite circumspection makes writing the agonising work it commonly is. (p 104)

Givón (1976) suggests that the process of syntacticization then erosion via morphologicalization and lexicalisation is not only a cyclic process but it is also a process which maps onto the processes of language birth (pidginization and creolization) and the drift from orality to literacy. With respect to literacy, syntacticization represents the movement from the primarily pragmatically organized face-to-face exchanges of purely oral languages to the primarily syntactically organized language of written texts (1979, 1979a, 1984) and can be characterised as a movement from topics to subjects, topicalization to passivization, topic sentences to relative clauses, conjunction to subordination, and from zero morphology to inflectional morphology. Apart from the absence of a rich morphological system, there are clear echoes in this description of the grammatical patterning found in Auslan and other sign languages. In particular, both parataxis and topicalization seem to be strongly encouraged by the face to face, unplanned nature of communications in sign language which are always rooted in a shared communicative context between signer and addressee (e.g., Ochs 1979). Topic-prominence can thus be seen to stem from both (a) conversational face to face discourse patterning of oral cultures and (b) the need to locate in space the agreement point (see 5.3.4). Thus in considering the grammatical patterning found across sign languages one can see that both discourse and modality considerations would exert similar pressures on any sign language contributing to the likelihood of similarity of outcomes.

Other patterns typically found in signing, such as the preference or predilection for additive rather than subordinative structures, the great degree of discursive repetition and redundancy, and the reliance on the immediate and situational rather than the abstract, have also been characterised as qualities of orality (Goody 1968, Ong 1985, Tannen 1982).

Though not directly addressing the question of orality versus literacy, Halliday (1985) does comment that “Written language represents phenomena as **products**. Spoken language represents phenomena as **processes**. And this corresponds to the difference between written and spoken discourse.” (p 81) “There is a sense in which [writing and speaking] create different realities. Writing creates a world of things; talking creates a world of happening.” (p 93) The preponderance and tendency towards nominalization in written language that this represents is in turn expressed in the use of grammatical metaphor which is also a feature of written language (e.g., Halliday 1985:93-96). Halliday characterises grammatical metaphor as the predominantly written use of language in which processes are first nominalised and then related using a relatively small set of verbs, notably the verb ‘be’ and its synonyms. To borrow examples from Halliday (pp 93-94) a hy-

potactic expression such as *after they had announced it, people applauded* or its paratactic equivalent *they announced it, then people applauded* could be reformulated by the nominalization of the processes of ‘announcing’ and ‘applauding’ as *after the announcement, people applauded* (or even the less likely *they announced the news before the applause*) and then through grammatical metaphor to *applause followed the announcement*.

Though no research has been carried out with respect to the absence or presence of grammatical metaphor in Auslan (nor in any other sign language as far as I am aware) it appears intuitively to the researcher, as a native signer, that expressions in Auslan tend to be congruent (i.e., event-focussed and not given to grammatical metaphor.) In a similar vein Kyle (1983) says that sign languages are more event structured in the way that narratives etc., are told because what a Deaf person focuses on as significant is different. He warmly supports DeMatteo’s ‘visual imagery’ thesis but spends some time trying to defuse the ‘iconic implications’ of such. This is indeed an area where future sign research needs to be directed.

### 6.3.3 Grammatical consequences of literacy in the host spoken language

Since the final observation on literacy is intimately concerned with the relationship of any sign language to its host spoken language and the degree of integrity and autonomy that a sign language may have under circumstances in which literacy can only occur in the host spoken language, there being no written form of sign languages, it will be discussed in the next section.

## 6.4 Autonomy and integrity

Signing communities are always and everywhere embedded within spoken communities. Though whole families can be deaf and signing and though there have been cases where a significant proportion of some communities have been deaf and signing, albeit usually isolated communities such as Martha’s Vineyard (Groce 1986) and Providence Island (Washabaugh 1986), the majority of Deaf people have daily interactions with people who know no sign language. Clearly, primary sign languages are substitutes for speech in that individuals and communities only have recourse to them if speech is not possible. However, they are quite unlike secondary sign languages in the sense that they are not substitutes for speech in the way that the symbols of a writing script are substitutes for speech and, consequently, neither are they dependent on speech for their existence or their form as are secondary sign languages. Thus the following observation made by Ong (1982:7) is quite erroneous:

Despite the richness of gesture, elaborated sign languages are substitutes for speech and dependent on oral speech systems, even when used by the congenitally deaf [...].

Nevertheless, the autonomy and integrity of sign languages may indeed be compromised by host spoken languages.

First of all, as noted in the previous section, literacy in any signing community is, strictly speaking, always literacy of another language (usually the host spoken language) rather than knowledge of a written form of sign. It is possible for this knowledge of the host spoken language to interfere with and influence the sign language of the community lexically or grammatically.

Lexically, a great many graphic forms of the written language are thought of as representations of signs as equally as representations of words. Indeed, in the mental lexicon of many native deaf signers there may be no phonological component whatsoever associated with graphic forms. Even a modest degree of literacy in the host language is likely to es-

establish a large number of one to one associations between signs and graphic forms and also create an expectation that the common high frequency content words of a spoken language — or at least their graphic forms — should also have sign equivalents. For example, signing communities that have French as a host spoken language are likely to have just one sign which is associated with the word ‘aimer’ while signing communities that have English as a host spoken language are likely to have two signs in the same semantic area — one associated with ‘love’ and one associated with ‘like’. Despite the fact that in this way areas of the lexicons of sign languages can be seen to be influenced, to a greater or lesser extent, by the lexicons of host spoken languages, one should not ignore the fact that on an everyday level the cultural and social life of both deaf and hearing individuals is virtually identical and the degree of mapping from one lexicon onto the other is more a reflection of this fact than the fact that one lexicon is determined by the other. For instance, the kinship terms of Auslan are the ‘same’ as those of English (e.g., ‘sister’) while the kinship terms of Taiwanese Sign Language are the ‘same’ as those of Mandarin (e.g., ‘big sister’ ‘little sister’); i.e., they make the same distinctions (cf. Peng 1974).

Grammatically, the autonomy of a sign language from its host spoken language is, paradoxically, both total and negligible at one and the same time. The paradox can be resolved by realising that writing (in this case the graphic or manual representation of the host spoken language) and speaking (or in this case signing) are different kinds of activities fulfilling different kinds of social and communicative functions — writing, for example, is associated with power and prestige and is involved in learning, religion, government and business. They do not represent two alternative or different ways of doing the same things (cf. Halliday 1985:vii). Thus the circumstances in which one might wish to use the written language are precisely those circumstances in which the spoken language — signing — would be inappropriate. However, the curious thing about this relationship is that the written form of the host spoken language is treated as if it was, in fact, an appropriate written representation of sign language. Indeed, a large majority of native signers could not even imagine a written form of their sign language that was not the script of the host spoken language. In this sense, the sociolinguistic profile of sign languages and their host spoken languages resemble diglossia (Hymes 1971, Ferguson 1964, Fishman 1967) (see also Chapter 2 above). As Halliday (1985:41-42) writes:

At various times, in the history of various cultures, spoken and written language have moved very far apart, sometimes to the extent of being entirely different languages. Thus in medieval Europe people spoke English, French, Italian, Dutch, and so on; but almost everything they wrote was in Latin. In China until 1919 most writing was in classical Chinese — which although it was called by the same name (by the Chinese themselves) was by that time about as far from spoken Chinese as Latin is from French; and there is similar distance in most of the Arabic-speaking communities between classical and spoken Arabic. This situation, referred to in linguistics as DIGLOSSIA, is characteristic of certain social conditions, where a ‘high’ variety of language is maintained for certain prestigious functions, alongside the ‘low’ varieties or vernaculars. (1985:41-42)

The ease with which the written form of those host spoken languages that use alphabetic scripts can be represented through fingerspelling reinforces the impression of a natural and smooth continuum from the ‘low’ form of native signing to the ‘high’ form of the written language. However, it is only an impression as they effectively represent two quite different languages. It is significant that even in speaking communities, for example the China of 1919, the high and written form of the language can also be thought of as the same language as the everyday spoken language even though to all intents and purposes both represent quite distinct languages. Thus, though the influence of the host spoken language is almost total in some registers, it is negligible in others.

In one sense it is this very diglossia, this very ability to represent the host spoken language through an adaptation of the normal signing of the community and through a script, that leaves the signing of the community to all intents and purposes untouched by the host language. Where Deaf individuals have a knowledge of the host language, it is used in situations where only the high form would be appropriate (writing as such or formal signing to an audience that included hearing signers). Where deaf signing individuals do not have access to or knowledge of the host language (fractured literacy in which a number of graphic forms of the script are identified with certain signs is not meaningful literacy in the host language) the influence of the host is, not surprisingly, negligible. It is only in the high form of signing that the influence of the syntax and lexicon of the host spoken language become inescapable and this is precisely where, to all intents and purposes, it ceases to be 'sign language' and becomes a manual representation of the written form of the host spoken language. The ability to manually represent the host spoken language (e.g., as in Signed English) is a secondary phenomenon made possible by the modality of sign. It, in its turn, makes possible the face-to-face interactive use of manual English in certain formal situations (see Chapter 2).

Since diglossia has been observed in all embedded signing communities, it is not yet clear to what extent the unwitting inclusion of data which may represent interference from host spoken languages may contribute to an impression for some researchers of syntactic diversity *between* sign languages where once again no significant diversity in fact exists. The observed diversity is really *between* host languages and/or *within* the signing community under investigation (i.e., between high and low forms) rather than between sign languages. The existence of diglossia in all embedded signing communities is yet again one more factor likely to contribute to convergence in grammatical patterning across sign languages. Since it is the host spoken language that will assume the functions associated with literacy and the high form, then those very processes of syntacticization which are likely to lead to diversity in grammatical patterning are not encouraged to take root in the sign language, or the 'low' form.

## 6.5 Creolization and nativization

The shared low status of sign languages in various communities together with particular patterns of language acquisition have, in the past, created the social preconditions for pidginization and creolization. Though it is certainly true that in a minority of communities the status of sign language is rapidly improving and, as a consequence, the environment in which sign language is acquired is also rapidly changing and becoming more typical of language acquisition patterns found in the wider community (e.g., in Sweden), the situation of most signing communities remains basically unchanged. Indeed, the dictionary which is the centre of this dissertation has itself already contributed to changing social attitudes towards Auslan in Australia. Nevertheless, changed practices and attitudes can only contribute to *future* changes and developments in sign language; the current profile of sign languages is the result of *past* practices. The similarities between creoles and sign languages has often been remarked upon (Fischer 1978). The suggestion is that in terms of syntax, language variation and patterns of acquisition sign languages look like creoles in some ways but not in others.

In terms of sign language acquisition it has been well documented that 90% to 95% of deaf children are born to hearing parents (Woodward 1973). As was explained in Chapter 2, the parents and hearing siblings of these deaf children rarely, if ever, learn to sign beyond a simple repertoire of 'home signs'. Even if family members are aware of the existence of natural deaf sign languages and are open to the suggestion of learning the appropriate sign language, lack of research and documentation and suitable teachers often makes it almost impossible for them to learn it. Deaf children of hearing parents consequently learn sign language from peers at school (and usually it is the deaf children of deaf parents

who are the conduits of community signing to their peers) in classrooms, dormitories and playgrounds; and/or they learn it from teachers who may sign (where manual communication is permitted) in a form of Signed English, Pidgin Sign English or sign language.

That is to say, several vital developmental years often pass in which the only language input is the little, often simplified, spoken language that can be heard together with improvised gestures and home signs. Indeed, many deaf children of hearing parents may not be exposed to systematic adult sign language until relatively late in their school years. Some do not even learn it (or meet signers) until after finishing school.

On the other hand, there are the 5% to 10% of deaf children who are born to deaf parents. Even though they grow up in a relatively normal language acquisition environment, where signing is the native language of the family unit, the fact that the deaf parents rarely have deaf parents themselves means that the sign language that occurs in deaf families may itself display some of the variability associated with deaf children of hearing parents. That is, the deaf parents of deaf children may themselves sign poorly since it is highly unlikely that they, too, had deaf parents. Moreover deaf children of deaf parents are also exposed to the same highly variable language environment at school as are the deaf children of hearing parents. Overall, the quality of language input seems to be restricted and all deaf children are confronted with a variety of language forms. This variability is similar to the language input of children in a pidgin situation.

Hearing signers and non-signers often address deaf children and adults in a form of simplified language similar to the simplified registers of 'foreigner talk' or baby talk' that often lies at the basis of a pidgin (cf. Ferguson and de Bose 1977): lexis is simplified, generic rather than specific terms are used, preference is given to 'simple' monomorphemic words and paraphrases; morphology is simplified and inflections dropped; syntax is reduced with loss of subordination, function words are omitted, and the copula is dropped (cf. Givón 1979, Foley 1988, Mülhausler 1987). These may be accompanied by gestures or, when the person knows some signs, by signing (Pidgin Sign English) in basically a one-to-one correspondence of sign with word. Many teachers, parents and friends regularly talk to the deaf child in this simplified register. However, unlike parents, siblings or teachers, for the deaf child this reasonably chaotic input is acquired as a native language in which they must conduct all their business not only the fleeting encounters with hearing others but also the protracted and elaborated exchanges with their deaf peers. In other words, the highly variable, if not pidgin-like, input needs to be elaborated (creolized) to fulfil a wider range of functions (Foley, 1988).

The shallow generational depth of the signing community which virtually all deaf children experience coupled with a problematic language acquisition environment in the school has lead some researchers to comment that "most children are thus forced to recreolize [sign language] in every generation' (Edwards & Ladd 1983:156; cf. Fischer 1978).

Whether it be the influence of a supposed language bioprogram (Bickerton 1988), pragmatic discourse imperatives (Givón 1984) or even the imputed iconicity of natural syntax (Haiman 1985) that can account for the similarity of form between widely dispersed pidgins and creoles, there can be little doubt that where individuals, especially children, need to synthesise incomplete, conflicting or corrupt language data (i.e., acquire a first language with restricted input) or when individuals, especially adults, attempt to 'simplify' their native language when addressing foreigners or supposed 'imbeciles' and/or learn a second language based on such data (acquire a second language with restricted input) a particular kind of language is produced which usually has a number of features. There can be little serious doubt that the majority of deaf children find themselves in a similar a language acquisition environment. Furthermore, since sign languages everywhere appear to be responding to the same imperatives, it should come as no surprise that similar, though not identical forms should result.

A summary of some of the features shared by sign languages and creoles should make this apparent (similar comparisons have been made for ASL and BSL by Fisher (1978)

and Edwards & Ladd (1983:152-53) respectively). As Deuchar (1984:145) notes: “ASL has all nine characteristics listed by Craig (1971) as found in English-based creole syntax. Fisher goes to point out similarity in social conditions under which ASL and creoles developed.”

In a number of description of pidgins and creoles (Bickerton 1981, Mülhausler 1985) it is noted that in the tense-mood-aspect systems tense is commonly furthest from the verb, followed by modality, and then aspect, which is the closest. A number of sign languages are witness to the same patterning. Second, in both sign languages and a wide range of creoles the same lexical item (‘have’) is used to express existentials and possession. Third, there is an absence of copula in sign languages and creoles. Fourth, verbs and adjectives appear to fall into the same class in sign languages and creoles. In a number of sign languages it is clear that adjectives act more like verbs and are able to inflect like verbs. Fifth, polar question formation is achieved by the use of intonation alone and a number of interrogatives for information questions appear to be a composition of a question word and a specifier. In Auslan, for example, a number of interrogatives can be analysed as deriving from the basic sign HOW-MANY (‘?’) placed at various significant locations: WHEN = ‘?-time’, WHERE = ‘?-place’. HOW-OLD = ‘?-old’, HOW-MUCH = ‘?-say’). And finally, there is a lack of a passive construction in both creoles and sign languages.

This is not to say that sign languages can simply be equated with creoles for clearly there are dimensions of modality, orality and autonomy that make sign languages unique and quite separate phenomena. It is to say, however, that a dimension of language use and acquisition in signing communities parallels very strongly that of situations in which pidgins and creoles are engendered and, just as pidginization and creolization in spoken languages tend to produce certain grammatical patternings, so it is with sign languages. In making comparisons between sign languages and creoles, caution must be exercised in basing judgements on poor glossing practices. Edwards & Ladd (1983:152-53), for example, conclude after a comparison of BSL and West Indian Creole that “Both West Indian Creole and BSL are almost entirely inflection free.” From their transcribed data there did in fact appear to be no inflection of verbs for person because information on direction and location of signs was not included. As explained in Chapter 4, derivational and inflectional modification of a sign is usually sign-internal (fusional, like ablaut) rather than additive or segmental. They do, however, recognize aspectual inflections probably because they are usually recorded in the transcription as the simple repetition of a sign, as in the creole text, and are thus noticed.

One difference between creoles and sign languages, therefore, is that despite the observation made by many linguists that “creoles tend to develop not only more complex embeddings and word order patterns than pidgins, but also considerably more complex morphological structures” (Foley 1988), sign languages have a significantly richer inflectional morphology than found in any creoles, apart from aspectual inflections. If the sociolinguistic situation of sign languages should be so similar to that which engenders creolization, then we must ask why this disparity between ‘spoken’ creoles and ‘signed’ creoles?

It has been suggested (Gee & Kegl 1982, Gee & Goodhardt 1985, 1988) that an explanation is to be found in the human biological capacity for language and how this is expressed in the acquisition of language in the modalities of speech and sign. As Gee & Goodhardt (1988:51) explain:

Recently, Roger Andersen [...] has proposed “the nativization hypothesis” to account for the *process* involved in language acquisition, whatever the resultant forms (pidgins, early child language, creoles, standard languages, etc.). This hypothesis unifies the [...] approaches to the human biological capacity along with several others and is perfectly natural from a biological perspective [...]. It enables us to delineate two underlying processes in language acquisition, regardless of the conditions in which it occurs: *nativization* and *denativization*.

In a sense, nativization represents the core grammar and denativization represents the process of setting the language specific parameters on this core. The nativization hypothesis can help explain the evident similarity between the grammar of sign languages and creoles *and* the apparent paradox that sign languages do make use of inflectional morphology (e.g., in the verb agreement system). The novel observation that these theorists make is that the core grammar is, to an extent, modality specific. That is to say, when the individual “falls back on the biological capacity for language and constructs language according to the internal norms for language design specified by this capacity” (Gee & Goodhardt 1988:51) the results will be different in speech and sign. Briefly the resolution is that both are the result of nativization, but in two different language modalities.

Sign languages are articulated in space — they have a locative and directional system which is basic to the visual perceptual and gestural articulatory systems with which they must work (see 6.2.3.2 above for a related discussion). If we take Slobin’s four linguistic imperatives “that are based on human cognitive prerequisites for language: (1) be clear, (2) be humanly processible in on-going time, (3) be quick and easy, (4) be expressive” (Gee & Goodhardt 1988:64) and assume that they direct the nativization process, it will be clear that because the manual modality is large and cumbersome it needs to pack more information per unit if it is to meet these criteria. The inherent slowness of sign utterances when compared to speech utterances, referred to several times earlier (Bellugi & Fischer (1972), Klima, Bellugi et al (1979) compare rate of utterance with rate of propositions in speech and sign), would incline signers to encode more information in each unit, whenever possible, to produce a rate of communication that was ‘quick and easy’. The layered organization of the sign in which five significant parameters participate in conveying meaning and the locative/directional system of sign space provide resources which facilitate codings that can meet Slobin’s criteria. That these processes are real, spontaneous (even ‘natural’) is underlined by the fact that deaf children who are exposed to only manual forms of English in which the sequential and locative/directional codings of Auslan (or BSL or ASL) are ignored in preference to the sequential, linear and lexical codings of English, continue to innovate sign-like forms, often in the face of strong opposition from those in control of the language input.

Exploitation of the locative/directional system and of the simultaneous aspects of a sign to encode meanings will ‘naturally’ lead toward a non-isolating morphology (see Chapter 4). Thus a non-isolating morphology is the ‘natural’ response of the nativization process with visual-gestural languages. There is no such motivation for spoken creoles to do so.

Gee and Goodhardt (1988) suggest that a child forced to innovate in the visual-gestural modality using the nativization process would thus hardly abandon the use of location and direction inherent in the non-systematic gesturing it was exposed to, nor ignore its implicit potential in contrived sign systems used to represent spoken languages that it may also be exposed to. Furthermore, not only is our perception of reality very much visual and spatial (see discussion above 6.2.3.1), but it would seem that much of our cognition is likewise fundamentally locative. It has been suggested (Gee & Goodhardt 1988 cite Andersen 1972 and Jakendoff 1978, 1983) that a good deal of cognition is spatial in nature as witnessed by ways in which individuals and languages have a tendency to express abstract meaning spatially (e.g., temporal relations expressed spatially *I’ll be there in a sec*, *The plane leaves at noon*, and possessives expressed as locations, *C’est à moi*.). If in the pidginization and creolization process one falls back onto and elaborates from a shared biological capacity for language, it would seem that signers are doubly motivated to retain and develop the locative/directional representation of meanings (cf. Gee & Kegl 1982).

One might then suggest that nativization encourages non-isolating morphology in sign creoles (sign languages), and an isolating morphology in spoken creoles, as well as producing a range of characteristics that are associated with all pidgins and creoles (see above). Overall, then, creolization and nativization would thus be one factor in explaining the convergence on the morpho-syntactic and syntactic level of various unrelated sign languages.

## 6.6 Summary

The primary aim of this dissertation has been to provide a description of Auslan — in the first instance recording a previously unrecorded lexicon and, as a necessary prerequisite for organizing the data in the dictionary, in the second instance profiling the sociolinguistic situation of Auslan, describing its phonology and morpho-syntax and examining some of the issues related to syntactic organization.

A secondary aim has been to establish that Auslan is not only like other sign languages, such as ASL, but that it has an enormous amount in common with many sign languages. In describing the nature and extent of this commonality, I have also suggested some factors, some specific to sign languages and some not, which may explain the high degree of commonality of features.

The reason why sign languages everywhere appear to share a common ‘core grammar’, or even have for all intents and purposes the ‘same grammar’, is not the result of any one single factor. Ignoring obvious historical links (where applicable) and the lexicalisation of cultural gestures, the phenomenon appears to be overdetermined — several linguistic and social factors operate simultaneously to produce a similar linguistic phenomena in disparate communities.

These factors may be grouped under four major headings: language medium, literacy, language autonomy, and language acquisition. Language medium refers to the fact that sign languages of the deaf are all visual-gestural languages as distinct from spoken languages which are, of course, oral-aural languages. Literacy refers to the fact the sign languages have no written form and that signing communities are essentially ‘oral’ communities in the way that sign language is used and perceived. Language autonomy refers to the status of sign languages in various communities and the relationship of those sign languages to their host spoken languages. Language acquisition refers to the patterns of acquisition of sign languages that deaf signers everywhere seem to share. Since all but three of these factors are essentially socio-linguistic in nature, it must be remembered that their relative impact on sign languages, significant as that may be, is contingent on social forces and thus prone to change with changing social circumstances. Their importance at this particular juncture lies precisely in the observation that all signing communities exist under similar sociolinguistic conditions.

Though sign languages are certainly not universal in the sense of being mutually intelligible, the sign languages which have so far been studied to any significant extent do appear to differ very little in morpho-syntax or in syntax. Knowing that the grammatical organization of all sign languages is extremely similar is of little use in cross sign communication if one does not know the appropriate lexicon since only a small core of culturally transparent iconic signs are also shared between signing communities with similar socio-cultural backgrounds. The exact status of any grammatical differences which may exist is still open to question and further research must determine whether such differences are a function of the analyses, the informants or the sign languages themselves. This suggestion of grammatical convergence or ‘syntactic universality’ in sign languages is not uncontroversial and data from as yet undescribed sign languages and signing communities will need to be brought to bear on the question before it can be stated with any degree of certainty, or even refuted.

What is certain is that the Auslan research which is presented in this dissertation represents only a partial, if necessary, beginning to the analysis of the sign language used in Australia. Without basic and accessible documentation of the language, as represented in the dictionary compiled for this dissertation, the very people who are best able to contribute to further research on the language — native deaf signers — are effectively excluded from that process of reflection on language which is the essence of linguistics. It is also certain that now that the task of basic description has been completed, the way is now open for more detailed studies of aspects of Auslan grammar, and sign language grammar generally, that were outside the scope of this work.

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