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36. Language emergence and creolisation

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Abstract

It has been argued that there are numerous interesting similarities between sign and creole languages. Traditionally, the term 'creolisation' has been used to refer to the development of a pidgin into a creole language. In this chapter, I take creolisation to apply when children create a new language because they do not have access to a conventional language model during acquisition. In this light, creolisation equals nativisation. Sign and creole languages can be compared to each other because of certain structural similarities as well as similarities in acquisition conditions. Crucial to the discussion here is the role of children in language acquisition when there is no conventional language model.

1. Introduction

In the recent past, there has been renewed interest in the phenomenon of creolisation in sign language circles (Kegl 2002; Aronoff/Meir/Sandler 2005). The term 'creolisation' has been traditionally used in the field of creole studies to refer to the development of a pidgin into a creole language (Todd 1990; Bickerton 1977, 1981; Andersen 1983; Hymes 1971), a definition which implies that as soon as a pidgin functions as a first language for its speakers, it has become a creole. This link between pidgin and creole, especially the question whether a creole always develops from a pidgin, has been one of the central issues in the field of creole studies for decades. Several proposals were put forward to account for the emergence of creole languages. Mühlhäusler (1986) and Bickerton (1981), among others, proposed different scenarios for the genesis of creole languages. What these proposals had in common is that they analysed creolisation from a sociolinguistic perspective.

Within the field of sign linguistics, several researchers have pointed out a number of interesting similarities between sign and creole languages. Early comparisons between them were based on studies investigating American Sign Language (ASL) (Fischer 1978; Woodward 1978; Gee/Goodhart 1988). These scholars have argued that sign languages have creole structures and that the structural properties shared by sign and creole languages are not accidental. It is clear that there is no genetic affiliation between these two groups of languages given that they belong to two different modalities. Language contact between these two groups of languages is also excluded as a possible explanation for the observed similarities since most of the sign languages do not coexist with creole languages. Hence, there is a need for an adequate explanation. In this chapter, I discuss the similarities described so far between these two language groups which can be explained by acquisition conditions. Compelling evidence comes from different areas: homesigns, young sign languages (e.g. Nicaraguan Sign Language), and acquisition studies of creole languages (Adone 2001b, 2008a; Adone/Vainikka 1999). A few scholars have argued that creolisation takes place in the formation of sign languages (Kegl/Senghas/Coppola 1999; Adone 2001b; Aronoff/Meir/Sandler 2005) – an issue that will be addressed in this chapter in more detail. Thus, the coupling of studies on creole and sign languages, especially young sign languages, can be expected to provide a unique perspective on the early stages of language genesis and development.

This chapter has two goals. First, it analyses creolisation as a process observed in the genesis of creole languages. Second, it discusses the development of sign languages as a case of creolisation that bears similarities to the development of creole languages. Here, I take a psycholinguistic stand on creolisation thus allowing for cross-modal comparison. Creolisation in the broader sense can be regarded as a process that takes place under certain specific circumstances of acquisition, that is, when children are not exposed to a conventional language model. Studies conducted by Newport (1999) and others have shown that, in the absence of a conventional language model, children use some of the other abilities they are equipped with to learn a language. They are even capable of surpassing the inconsistent language model. They are also able to regularise their input as seen in the case of children acquiring creole languages today (Adone forthcoming). As the case of homesigners reveals, children are also capable of inventing their own linguistic systems (Goldin-Meadow 2003). Taken together, these studies bring to light the significant contribution of children to language acquisition.

This chapter is organised as follows: section 2 examines the term creolisation in depth as it is understood in the field of creole studies. In section 3, we will introduce two types of emerging sign languages, Deaf community sign languages and young village sign languages. In section 4, the most important structural similarities between creole languages and sign languages are presented while in section 5, the acquisition conditions of creole languages and sign languages are compared. The emphasis here is on the role that children play in the acquisition of these languages. Section 6 discusses the implications of the findings with respect to creolisation and recreolisation. This section highlights that humans have ‘language-ready’ brains. In the absence of adequate input, humans, i.e. children, still create a language system. Section 7 summarizes the main ideas presented in this chapter and concludes that creolisation takes place across modalities.

2. Creolisation: state of the art

2.1. Creolisation within the field of creole studies

Without doubt, creolisation has been one of the most controversial issues within the field of creole studies. In this section, we will address two central issues in the discussion on creolisation that have influenced the field of creole studies, namely, the genesis of creole languages *per se*, and the ‘exceptional’ status of creole languages.

2.1.1. The genesis of creole languages

Several accounts of creolisation have been articulated so far. In some of the earliest ones, it is assumed that a pidgin precedes a creole, whereas according to other accounts, a pidgin is not necessary for a creole to emerge.

The classical view that creolisation is a process that takes place when a pidgin becomes the mother tongue of its speakers has been supported by several scholars (Hall 1966; Todd 1990; among others). According to this view, a pidgin is a structurally and lexically simplified system which emerges in a language contact situation, and eventually develops into a fully-fledged language, that is, a creole. As a simplified system, a pidgin typically has the following characteristics: a very restricted lexicon, no inflectional morphology, no functional categories, and a highly variable word order. In contrast, a creole system typically shows an elaborate lexicon, derivational and some inflectional morphology, functional categories, and an underlying word order. The creole system, as compared to the pidgin one, is less variable. The creolisation process is assumed to take place as soon as the first generation of children acquires the pidgin as a first language.

Another view is that creolisation takes place when pidgins expand into creole languages without nativisation. Scholars such as Sankoff (1979), Chaudenson (1992), Singler (1992, 1996), Arends (1993), and McWhorter (1997) have argued against the nativisation-based view of creolisation. Based on a detailed historical reconstruction, scholars have argued that creolisation can be a gradual process taking place over sev-

eral generations of speakers (Arends (1993), Plag (1993), and Roberts (1995) for Hawaiian Creole; Baptista (2002) for Cape Verde Creole; Bollée (2007) for Reunion Creole). Under this view, creolisation equates to language change and the development of grammatical structures in the formation of creoles can be accounted for by universal principles of grammaticalisation (e.g. Plag 1993; Mufwene 1996). This view of creolisation can be assumed to account for the emergence of some creoles. More recently, some scholars have discussed grammaticalisation and creolisation as processes that are not mutually exclusive (Plag 1998; Adone 2009; among others).

Taking a universalist perspective on creolisation, Bickerton (1981, and subsequent work) rejected this view and proposed that there is a break in the transmission between the lexifier languages and the creoles. This has led him to argue that creolisation must be abrupt if there is a breakdown in transmission of language. In his Language Bioprogram Hypothesis, Bickerton (1984) argues that adult pidgin speakers pass on their pidgin to their children. These children, that is, the first generation of creole speakers, are thus exposed to deficient input. As a result, they have to rely on their 'Language Bioprogram' to invent language. The basic idea here is that creolisation is an instance of first language acquisition in the absence of input. It is nativisation which takes place as soon as a pidgin becomes the first language for its speakers (cf. Bickerton 1974; Thomason/Kaufmann 1988; Adone 1994, 2001b, 2003; Mufwene 1999).

On the basis of a series of well-documented socio-historical facts, Arends (1993), Singler (1993, 1996), and others, questioned the plausibility of Bickerton's claim. Since then the role of children and adults in the process of creolisation has become a subject of considerable debate within the field. In the current debate, most of the scholars adhere to the view that adults rather than children must have been the ones creolising the system (e.g. Lumsden 1999; Lefebvre 1998; Siegel 1999; Veenstra 2003; Singler 1992). For other scholars (e.g. Bickerton 1984, 1990; Adone/Vainikka 1999; Adone 2001b; Bruyn/Muysken/Verrips 1999; Mufwene 1999), children were the ones mainly responsible for creolisation. Following DeGraff (1999), nowadays many scholars within the field assume that both adults and children must have contributed to the process of creolisation (cf. Plag 1998; Baptista 2002; among others). However, little research has been undertaken to provide evidence for either view. One reason for this are insufficient historical records on the development of most creole languages, especially during the early stages of formation within colonial plantation communities in the seventeenth and eighteenth century. Most creole languages emerged in the context of European colonial expansion which was practised from the sixteenth century onwards and was characterised by rigid social stratification of the society, master-slave relationships, and plantation environments – all important socio-historical components typically present in creolisation (Arends/Muysken/Smith 1995). It is this socio-historical dimension that distinguishes creole languages from non-creole languages (see DeGraff 2003).

2.1.2. On the 'exceptional' status of creoles

The second question which has been controversially discussed concerns the exceptional status of creoles. Muysken (1988) already argued that creole languages are not exceptional. However, the debate peaked with McWhorter's (2001) proposal in which he presented arguments for a distinction between creole and non-creole languages.

McWhorter argues that creole grammars can be regarded as “the world’s simplest grammars”, a view that has evoked much controversy among scholars in the field of creole studies. Behind the view of McWhorter is the widely spread assumption that creole languages are unique in the sense that they form a distinct and fairly homogeneous group of languages with special features that set them apart from other languages. This view has been referred to in the literature as “creole exceptionalism”. Numerous scholars within the field of creole studies have argued against creole exceptionalism or uniqueness (DeGraff 2003; Mufwene 2000; Ansaldo/Matthews/Lim 2007). According to them, in terms of structure, creole languages are neither simple nor inferior as compared to other languages. The only relevant difference between creole and non-creole languages can be explained in terms of age. Creole languages, like sign languages, are ‘young’ languages. Many of the creole languages emerged in the eighteenth century, and some are about 200 years of age. The recent emergence of these languages has fortunately enabled us to observe some of the developmental stages languages go through, and thus to gain insights into language emergence and development.

As we will see in the following sections, creole languages are not structurally exceptional. In fact, the similarities between creole and sign languages are so striking that it is unlikely that they are coincidental. One last point needs to be mentioned here. Studies that have focussed on the socio-historical/cultural factors involved in creolisation have clarified what E-creolisation is. This process takes place on the societal level within a specific time frame (i.e. colonisation) and within a specific type of society (master-slave relation). E-creolisation will not be discussed further in this paper because it is not relevant in the present context. However, we note that the deaf communities in Europe, for instance, went through periods of societal suppression due to the widespread belief in oral education following the International Congress on the Education of the Deaf held in Milan in 1880 (see chapter 38 for details).

2.2. Creolisation within the field of sign language research

As briefly mentioned in section 1, a number of scholars within the field of sign language research have drawn attention to similarities between sign and creole languages (Deuchar 1987; Fischer 1978; Woodward 1978; Gee/Goodhart 1988). Both Woodward (1978) and Fischer (1978) have argued that ASL is the outcome of creolisation of indigenous American gestures and sign systems and the French Sign Language brought to the United States by Laurent Clerc in the early nineteenth century. Fischer, for example, compares ASL to creole languages and argues that ASL looked structurally similar to creole languages (see section 4 for details). ASL, like Jamaican Creole, also had a three ‘lect’ distinction (acrolect, mesolect, and basilect). While Fischer focuses on the syntactic similarities between ASL and creole languages as well as on the parallels in the social situation, Woodward discusses the lexical change in ASL and creole languages.

More recently, Fischer (1996) presents interesting evidence for creolisation in the number system of present-day ASL. She argues that the ASL number system is based on “a hybridisation of American and French numbers” (1996, 1). A closer look at ASL number signs for 6–9 shows an innovation which is typically seen in creole languages

in that they go beyond the languages that provide the lexical bases. Further evidence for creolisation is seen in the randomness of the mixing between American and French number forms.

Gee/Goodhart (1988) point out striking grammatical similarities between ASL and creole languages such as (i) the use of topic-comment word order, (ii) lack of tense marking, but a rich aspectual system, (iii) use of postverbal free morphemes for completive aspect, and (iv) absence of pleonastic subjects and passive constructions. Some of these features will be discussed in section 4 (also see Kegl/Senghas/Coppola 1999; Kegl 2002; Meier 1984),

3. Emerging sign languages

Meir et al. (2010a) make a distinction between two types of emerging sign languages: Deaf community sign languages and village sign languages. According to this distinction, Deaf community sign languages arise when signers of different backgrounds are brought together in cities or schools. Nicaraguan Sign Language, Israeli Sign Language, and Mauritian Sign Language are typical examples for this type of sign language. Village sign languages, on the other hand, emerge in small communities or villages in which a number of deaf children are born. Transmission of these sign languages takes place within and between families. Socially speaking, these villages are more or less insular. In section 3.2, we will briefly address one recently described young village sign language, Al-Sayyid Bedouin Sign Language (see chapter 24 for discussion of other village sign languages).

Yet another type of sign languages worth mentioning here are alternate (or secondary) sign languages. These sign languages have been described in the literature as linguistic systems that are used by both deaf and hearing people. For the hearing community, these sign languages function as second languages and are mostly used for cultural reasons (e.g. for ceremonies, when silence is requested in the presence of sacred objects, or in the case of a death), thus serving a secondary purpose (Adone/Maypilama 2012; Cooke/Adone 1994; Kendon 1988; Maypilama/Adone 2012). Because of their apparent restricted use, alternate sign languages are generally not regarded as full-fledged languages (see chapter 23, *Manual Communication Systems: Evolution and Variation*, for further discussion).

3.1. Deaf community sign languages

Recent studies have documented the genesis of a few sign languages. Senghas (1995) and Kegl, Senghas, and Coppola (1999) report one of the first cases of the birth of a natural language, namely Nicaraguan Sign Language (ISN) in Nicaragua. Senghas (1995) tracks the historical development of ISN which started in the late 1970s in Nicaragua when the government established special education programs for deaf children in the capital Managua. Deaf children from scattered villages were sent to this school and brought with them their individual homesign systems. Although teachers insisted on an oral language approach, that is, the development of oral language skills

as well as lip-reading ability in Spanish, children used gestures and signs with each other. In this environment of intense contact, the deaf children developed a common system to communicate with each other, and within only a couple of years, a new sign language emerged. These signs formed the input for new groups of deaf children entering school every year. Current work on ISN reveals the gradual development of grammatical features such as argument structure, use of space, and grammatical markings, among others, across different cohorts of learners (Senghas 2000; Senghas et al. 1997; Coppola/So 2005).

Adone (2007) investigated another interesting case of recent language genesis in the Indian Ocean on the island of Mauritius. In Mauritius, the first school for the deaf opened in September 1969 in Beau Bassin, one of the major cities on the island. According to information disclosed by the Society for the Welfare of the Deaf (Joonas, p.c.), in the early seventies deaf children were recruited across the island and sent to school in Beau Bassin. Children stayed in dormitories at school during the week and were sent back to their villages to spend the weekends with their families. In 2004, Adone and Gébert found several generations of Mauritian Sign Language (MSL) users. Parallel to MSL users, in 2004, I discovered a small group of children in the north of the island, Goodlands, who were using a sign system different from that of the deaf population in Beau Bassin. Given that these children did not have contact with the deaf community (children and adults) in Beau Bassin, it seemed worthwhile to take a closer look at them. There were around 30 children of different ages. The older children between 6 and 7 years of age were taught to lip-read, read, and write by a teacher who had no training in deaf education. The younger ones were allowed to play and interact freely with each other as communication with the teachers was extremely difficult. Based on first-hand observations of the Mauritian situation, I proposed that this system could easily be regarded structurally as a homesign system and that it provided us with insights into the earliest stages in the formation of a sign language (Adone 2007, 2009). Extrapolating results from work done so far, it becomes clear that MSL, in contrast to other established sign languages, has developed little morphology. This is evidenced by the distribution of plain, spatial, and agreement verbs: there are less agreement verbs than plain and directional verbs. Native signers use SVO order quite frequently, but they do show variability.

3.2. Young village sign languages

Another extremely interesting case of an emerging sign language is seen in the development of Al-Sayyid Bedouin Sign Language (ABSL). This sign language emerged in the Al-Sayyid Bedouin community (Negev region, Israel), “a small, insular, endogamous community with a high incidence of nonsyndromic, genetically recessive, profound prelingual neurosensory deafness” (Aronoff et al. 2010, 134). According to researchers, this sign language is approximately 70 years old (Sandler et al. 2005). The sign language is remarkable for a number of reasons. First, while the two examples discussed in the previous section illustrate clearly the case of children deprived of exposure to language, who as a result invent a new system, ABSL exemplifies language emergence within a village community with little influence from sign languages in the environment. Second, ABSL appears to have a regular syntax – SOV and head-modi-

fier order (Sandler et al. 2005) – and regular compounding (Meir et al. 2010b), but has no spatial morphology and has also been claimed to lack duality of patterning (Aronoff et al. 2010).

Thus, these three studies on ISN, MSL, and ABSL, while tracking individual linguistic developments, bring to light the various stages and mechanisms involved in the creation of a new sign language.

4. Structural similarities between creole and sign languages

In this section, I focus on some key structural similarities between sign and creole languages reported in the literature. A complete overview of the attested parallels would go beyond the scope of this study. Therefore, I will address only five aspects: word order, aspectual marking, reduplication, serial verb constructions, and morphological structure. At this point, it is important to establish a distinction that will be relevant throughout the whole discussion, namely the distinction between ‘mature, established’ and ‘young’ sign languages. This distinction is crucial because not only age plays a role in the development and life-cycles of languages but also the degree of conventionalisation.

The term ‘mature, established’ language is used mainly to refer to sign languages which are reported to have a history of more or less 200 years, such as ASL, British Sign Language (BSL), German Sign Language (DGS), and others. There are other sign languages such as Adamorobe Sign Language (AdaSL) in Ghana (Nyst 2007) or Yolngu Sign Language (YSL), an alternate sign language used in the Top End of the Northern Territory of Australia, which, according to this criterion, are also mature, but these languages seem to be linguistically different from the mature established sign languages mentioned above. In contrast, the term ‘young’ sign language refers to sign languages such as ISN, ABSL, Israeli Sign Language, and MSL, which all have a relatively short history and are not yet (fully) established. As shown in section 3.1, in both ISN and MSL, we are dealing with similar conditions playing a role in the genesis of these languages.

Another crucial aspect in the below discussion is the non-relatedness of creole and sign languages. Languages from these two groups are not genetically related to each other and they generally do not have any close contact with each other to the extent that they could influence each other directly. As a result, it is safe to assume that the similarities found between these two language groups cannot be explained in terms of genetic affiliation or language contact. Furthermore, creole languages are spoken languages, thus belonging to the auditive-oral modality, whereas sign languages use the visual-manual modality.

4.1. Word order

Many of the earlier studies on word order in both creole and sign languages concentrated on discourse notions such as topic and comment. Researchers in the early seventies proposed that creole languages have no basic word order, and that the order of

sentence elements instead depended on discourse – an issue heavily debated in the eighties. Over the years, an increasing body of studies on individual creoles has shown that creole languages seem to have a basic word order in matrix and embedded sentences, i.e. SVO, as well as hierarchical structure (Adone 1994; Baptista 2002; Veenstra 1996; Syea 1993). Interestingly, a similar debate took place in sign language linguistics circles: while some early studies stressed the importance of discourse notions (e.g. Ingram 1978), later research demonstrated for various sign languages that they do have a basic word order – be it SVO or SOV (see chapter 12, Word Order, for discussion and methodological problems).

Clearly, the issue of word order is closely related to information packaging, that is, the organisation of sentences to convey information structure, such as topic and focus. Topic and focus are relative terms used to refer to old and new information, respectively (see chapter 21, Information Structure, for details). It has been claimed independently that both creole and sign languages, even though they have basic word order, make heavy use of topic-comment structures. Also, it has been observed for various sign languages that elements may be repeated in sentence-final position in order to foreground (i.e. focus) these elements. In ASL, for instance, *wh*-signs (1a), verbs (1b), and quantifiers may be doubled (Petronio 1993; in Sandler/Lillo-Martin 2006, 417f.).

- (1) a. $\frac{\text{wh}}{\text{WHO BUY C-A-R WHO}}$ [ASL]
 ‘Who bought the car?’
 $\frac{\text{hn}}{\text{ANNE LIKE ICE-CREAM LIKE}}$
 ‘Anne *likes* ice cream.’

Similar doubling structures are also attested in various creole languages – however, there is a restriction on the elements that can be doubled as well as on the position of the doubled element. Generally, the doubled element appears sentence-initially. Investigating the phenomenon for Isle de France Creole (a French-based creole), Corne (1999) refers to it as ‘double predication’. A look at the Mauritian Creole examples in (2), shows that in this language, verbs can be doubled (2a) but *wh*-words cannot (2b).

- (2) a. Galupe ki mo fin galupe [Mauritian Creole]
 run that I ASP run
 ‘I ran a lot.’
 b. *kisana in aste loto la kisana?
 who ASP buy car DET who
 ‘Who bought the car?’

These surface similarities between creole and sign languages, I believe, are best explained as resulting from their discourse-oriented character. These languages use prosodic prominence when elements are focused.

4.2. Aspectual marking

The use of aspectual marking is another area of similarity between creole and sign languages. Over the years, it has become clear that the majority of creole languages

have both tense (anteriority) and aspect (completion) markers. Furthermore, in the past few decades, several studies have shown that, across creole languages, tense and aspect markers were attested in the early stages of creolisation (Arends 1994; Bickerton 1981; Bollée 1977, 1982; Baker/Fon Sing 2007; Corne 1999). Both tense and aspect markers can be used with verbs and predicative adjectives in creole languages. The prominence of aspectual marking in the creole TAM-system has led Bickerton (1981) and others to argue that the system is primarily aspect-oriented.



Studies on sign languages also reveal that verbs and predicative adjectives may inflect for aspect. Inflection for tense, however, is not attested. Klima and Bellugi (1979) provide an overview of aspectual inflections in ASL, such as iterative, habitual, and continuative (see also Rathmann 2005). Similar aspectual markings with the same functions have been reported for other ‘mature’ as well as ‘young’ sign languages, for example, BSL (Sutton-Spence/Woll 1999) and MSL (Adone 2007). Another very interesting phenomenon is the use of the sign FINISH in ASL and other sign languages to mark completive aspect (Fischer 1978; Rathmann 2005; see chapter 9, Tense, Aspect, and Modality, for further discussion). Interestingly, we find a parallel development in creole languages. Most creole languages have developed a completion marker for aspect which derives from the superstrate/lexifier languages involved in their genesis. In the case of Mauritian Creole, French is the lexifier language and the aspectual marker *fin* derives from the French verb *finir* (‘finish’; see example (3b) below). This development is interesting for two reasons. First, in one of the emergent sign languages studied, MSL, the sign FINISH is also used to mark completion across generations of signers. Second, Adone (2008a) found that young homesigners overgeneralise the gesture ‘GO/END/FINISH’ to end sentences in narratives. Taken together, this provides empirical support for the view that aspectual marking, i.e. completion, is part of the basic set of features/markings found in the initial stages of language genesis and development. Further evidence comes from studies on first language acquisition of spoken languages which indicate that cross-linguistically children seem to mark aspect first (Slobin 1985).

4.3. Reduplication

The next two structures to be discussed, namely reduplication and serial verb constructions, have been selected because of their relevance in the current theoretical discussion on recursion as a defining property of UG (Roeper 2007; Hauser/Fitch 2003). A closer look at reduplication reveals that both language groups commonly make use of reduplication, as seen in the following examples from spoken creoles (3a–d) and DGS (4a–b) (in the sign language examples, reduplication is marked by ‘++’).

- (3) a. Olabat bin *wokwok* oldei [Ngukurr Kriol]
 ‘They were walking all day.’
 b. ... *lapli lapli* ki fin tonbe ... [Mauritian Creole]
 ‘... there was a lot of rain ...’
 c. Ai bin luk munanga *olmenolmen* [Ngukurr Kriol]
 ‘I saw many white men.’
- (4) a. NIGHT INDEX₁ DRIVE ++ [DGS]

‘I drove the whole night.’

b. GARDEN CHILD++ PLAY

‘The children are playing in the garden.’

In both creole and sign languages, verb reduplication fulfils (at least) two functions: (i) realization of aspectual meaning ‘to V habitually, repeatedly, or continuously’, as in (3a) and (4a); (ii) expression of intensive or augmentative meaning in the sense of ‘V a lot’, as in (3b). Such patterns are attested in various creoles including French-based, Portuguese-based, and English-based creoles (Bakker/Parkvall 2005) as well as in established and emerging sign languages (Fischer 1973; Senghas 2000).

Adone (2003) drew a first sketch of the similarities between creoles and sign languages with respect to reduplication to mark plurality, collectivity, and distribution in nominals. Interestingly, among these three distinct functions, plurality (3c, 4b) and collectivity are found to be widespread in both creole and sign languages (cf. Bakker/Parkvall 2005; Pfau/Steinbach 2006). Given the extensive use of reduplication in these two language groups, it is plausible to argue that (full) reduplication is a syntactic structure that emerges early in language genesis because it is part of the basic set of principles available for organising human linguistic behaviour, a view that has been previously taken by several scholars (Bickerton 1981; Goldin-Meadow 2003; Myers-Scotton p.c.).

4.4. Serial verb constructions

Serial verb constructions (SVCs) are typically defined as complex predicates containing at least two verbs within a single clause. Classical examples come from Kwa languages of West Africa, and the Austronesian languages of New Guinea and Malagasy. In the field of creole studies, SVCs have long been regarded as evidence ‘par excellence’ for the substrate hypothesis according to which creole grammars reflect the substrate languages that have been involved in the genesis of creole languages (e.g. Lefebvre 1986, 1991). While the role played by substrate languages cannot be denied, I believe that universal principles operating in language acquisition are likely to offer a better explanation on the formation of creole languages.

A look at SVCs shows that some properties can be regarded as core properties; these include: (i) only one subject; (ii) no intervening marker of co-ordination or subordination; (iii) only one negation with scope over all verbs; (iv) TMA-markers on either one verb or all verbs; (v) no pause; and (vi) optional argument sharing (Veenstra 1996; Muysken/Veenstra 1995).

Several types of SVCs have been distinguished in the literature. Here, however, I will discuss only two types, which are found in both creole and sign languages (see Adone 2008a): (i) directional SVCs involving verbs such as ‘run’, ‘go’, and ‘get’, as illustrated by the Seychelles Creole example in (5a); (ii) benefactive SVCs involving the verb ‘give’, as in the Saramaccan example in (5b) (Byrne 1990; in Aikhenvald 2006, 26):

- Supalla (1990) discusses ASL constructions involving serial verbs of motion. In (6a), the first verb expresses manner, the second one path (adapted from Supalla 1990, 134). The NGT example in (6b), from Bos (1996), is similar to (5b). It is interesting to note that the mouthing *betalen* ('to pay') stretches over both verbs as well as an intervening index, which is evidence that the two verbs really form a unit (PU stands for 'palm-up').
- Senghas (1995) reports on the existence of such constructions in her study on ISN. Senghas, Kegl, and Senghas (1997) examine the development of word order in ISN and show that the first generation signers have a rigid word order with the two verbs and the two arguments consistently interleaved in a $N_1V_1N_2V_2$ pattern (e.g. MAN PUSH WOMAN FALL). In contrast, the second generation of signers initiates patterns such as $N_1N_2V_1V_2$ (MAN WOMAN PUSH FALL) or $N_1V_1V_2N_2$ (MAN PUSH FALL WOMAN). These patterns illustrate that signers in the first generation have SVSV (not an SVC) while second generation signers prefer both SOVV and SVVO patterns. These latter structures display the defining core properties of SVC, syntactically and prosodically.

As an example, consider spatial inflection on verbs, that is, the classical distinction between plain, spatial, and agreement verbs, which is pervasive in sign languages around the world (see chapter 7 for details). Padden et al. (2010) perused the agree-

ment and spatial types of verbs in two ‘young’ sign languages (ABSL and Israeli SL) and found compelling evidence for the development from no agreement to a full agreement system. MSL, also a young sign language, confirms this pattern: plain and spatial verbs are common while agreement verbs are less common (Gébert/Adone 2006). The reason given for the scarcity of agreement verbs is that these verbs often entail grammatical marking of person, number, and syntactic roles. If we assume that spatial verbs involve spatial mapping but no morphosyntactic categories, then we expect them to develop earlier than agreement verbs, that is, we expect the grammatical use of space to develop gradually. YSL seems to confirm this hypothesis. Although this sign language is a mature sign language, it still has not developed much morphology. A careful examination of verbs in this sign language shows that both plain and spatial verbs are abundant; the verbs SEE, LOOK, COME, and GO, for instance, may be spatially modified to match the location of locative arguments. In contrast, only two instances of agreement verbs, namely GIVE and TELL, have been observed so far (Adone 2008b).

4.6. Summary

To sum up, we have seen that there are some striking structural similarities between creole and sign languages, and that these are far from superficial. Due to space limitations, only a few aspects have been singled out for comparison. In addition, both creole and sign languages seem to share similar patterns of possessive constructions (simple juxtaposition of possessor and possessee), rare use or lack of passive constructions, and paucity of prepositions, among others. Obviously, all of these structures are not specific to these two types of languages as they are attested in other languages, too. What makes these structures highly interesting is that they are available in these two ‘young’ language groups. Having established the structural similarities between these language groups, we may turn now to their genesis. A closer look at their acquisition conditions makes the comparison even more compelling.

5. Similarities in acquisition conditions

5.1. The pidgin-creole language context

Bickerton drew some very interesting parallels between creole languages and first language acquisition data to support his view of a Language Bioprogram which children can fall back on when they do not have access to sufficient input. This view has been much debated and is still a source of dispute within the field of creole studies. Investigating data from Hawaiian Pidgin, Bickerton (1981, 1984, 1995) assumed that adult pidgin speakers learned the target language of the community, which was English, and passed on fragments of that language to their children. Several studies on various pidgins have reported a restricted vocabulary, absence of morphology, and high variability, among other features. Based on the structural similarities between creoles and the initial stages in first language acquisition, Bickerton proposed that a similar system, protolanguage, must have been the evolutionary precursor to language. In broad terms,

protolanguage is regarded as “the beginnings of an open system of symbolic communication that provided the bridge to the use of fully expressive languages, rich in both lexicon and grammar” (Arbib/Bickerton 2010, vii). As such, a pidgin can be understood as the precursor of a creole. Due to space limitations, I cannot discuss this matter any further; however, I would like to add that the evidence for such a comparison is compelling (Bickerton 1995; Arbib/Bickerton 2010).

I have discussed elsewhere that the acquisition of Mauritian Creole syntax confirms Bickerton’s nativist view to some extent. Additional support comes from Ngukurr Kriol (Adone 1997). It is important to note that there are two situations to be distinguished: the first generation of creole speakers, and the subsequent generations of creole children. The major difference between the first and subsequent generations lies in their access to input. The situation is less extreme for subsequent generations of creole-acquiring children than for the first generation because the former do indeed have access to input, which, however, can be highly variable and unsystematic in nature (Adone 1994, 2001b).

An example is the use of lexical and null subjects. The overall development of null subjects in Mauritian Creole showed a U-shape development which can be partly explained by the highly unsystematic nature of the input (Adone 1994), in particular, the unsystematic use of null/lexical subjects by adults. This in turn can be partly explained by the fact Mauritian Creole is mostly an oral language. It is safe to say that the language is in a state of flux. There is no conventional language model to reinforce the knowledge of the adult native speaker. Children spend the first years of their lives acquiring a creole spoken in their environment. When they go to school, they become literate in English or French, languages which are not always spoken in their environment (Florigny 2010). Given that they do not get a conventional language model as input, they develop an ‘approximate’ open system.

5.2. The homesign – sign language context

There are various circumstances in which deaf children acquire language. First, there are those deaf children who grow up with deaf parents and therefore have access to their parents’ sign language from birth. This type of first language acquisition is known to proceed just like normal language acquisition (see chapter 28 for details). In a second group, we find deaf children who are surrounded by hearing people with no or very little knowledge of a sign language. The statistics indicate that in roughly 90 % of cases, deaf children are born to hearing parents. For the United States, for instance, it has been reported that only about 8.5 % of deaf children grow up in an environment in which at least one of the parents or siblings uses a sign language. As such, in most homes, the adult signers are non-native users of a sign language. In these cases, deaf children are in a position similar to that of the first generation of creole-speaking children whose parents are pidgin speakers. While we still do not know the exact nature of the input to the first generation of creole-speaking children, we have a better picture in the case of the deaf children.

Hearing parents often use gestures to communicate with their deaf children. The gestural system generated by adults is structurally similar to pidgins in that it is irregular, arbitrary, and unsystematic in nature (Goldin-Meadow 2003; Senghas et al. 1997).

This spontaneous and unsystematic repertoire of gestures does not provide the deaf children with sufficient input to acquire their L1, but may allow them to develop a homesign system. Homesign is generally regarded as an amorphous conglomeration of gestures or signs invented by deaf children in a predominately hearing environment without access to sign language input. Homesign can be regarded as a possible precursor of a sign language in the same way as a pidgin is a precursor for a creole. In both the pidgin and the homesign contexts, children have no access to a conventional language model (see chapter 26, Homesign, for further discussion).

It is crucial to note that creole and sign languages are prevalently languages without standardised written forms. More importantly, deaf children and creole-speaking children do not become literate in their first language for various reasons. Many deaf children are sent to mainstream schools, thus forced to integrate into the hearing community and learn a spoken language at the expense of their sign language. Studies on children homesigners around the world show that they develop a successful communicative system (Goldin-Meadow 2003; Adone 2005). Taken together, these studies strongly suggest that children play an important role in acquisition.

5.3. The role of children in creolisation

Now, if we take creolisation to be nativisation, we need to take a closer look at the role played by children during this process. Before we move on to the discussion, let us establish some conceptually necessary assumptions. There is little doubt that the ability to acquire and use language is a species-specific property of humans. Although animals can also demonstrate coordination of their behaviour, their communication skills are limited (cf. Hultsch/Mundry/Todt 1999). It is also uncontroversial that language, as one of the human activities, is highly rule-governed. Within the field of generative linguistics, it is generally assumed that humans have a 'language faculty' that is partially genetically determined. Evidence for this genetic predisposition for language comes from studies supporting the view of 'a critical period', or, most recently, 'sensitive periods' for language acquisition. Evidence for this sort of constraint on human language development comes from children who have undergone hemispherectomy and from feral or seriously deprived children like Genie, who did not have exposure to language until the age of 13 (Curtiss 1977). Taken together, these findings indicate clearly that complete and successful acquisition depends very much on early exposure to a language model.

A closer look at cross-linguistic studies emphasises the ability of children to overgeneralise and regularise. Several cases of overgeneralisations in various languages have been documented by Pinker (1999). He argues that although children are capable of generalising and overgeneralising, such overgeneralisations are actually rare in the acquisition data from English and German (among other languages). We might thus ask ourselves why these children apparently rarely overgeneralise. Some scholars might argue that the parents' corrections could be a reason. However, if this was the case, then we would not expect any overgeneralisations at all. Alternatively, a more interesting explanation might be that these languages are all established languages, that is, children have access to a conventional language model that they have to follow. As a result, there is no 'space' for overgeneralisations. Cases of overgeneralisations in the

child's grammar illustrate the creativity of children and thus confirm the children's ability to generate rules and to apply them elsewhere. This explains why English-speaking children regularise the past tense *-ed* and produce forms such as *goed* for a period of time and only later acquire the irregular target form *went*. By the time children acquire *went*, they have encountered *went* in the input many times. Indeed Pinker (1999) argues that the frequency of the form contributes to reinforcing the memory for the correct form *went* (also cf. *breaked*, *eated*, and the 'double inflected' forms *broked*, *ated*).

Looking at the case of children acquiring creole languages offers us a unique perspective on the system these children generate when confronted with a variable, non-conventional input. Adone (2001b, forthcoming) claims that creole-acquiring children seem to have more 'freedom' to generalise and that they do so extensively. She presents evidence for children's creative abilities deployed while forming innovative complex constructions such as passive, double-object, and serial verb constructions. Obviously, these children regularise the input and reorganise inconsistent input, thus turning it into a consistent system (see Adone (2001a) for further empirical evidence involving the generalisation of verbal endings to novel verbs by Seychelles Creole-speaking children). In an artificial language study, Hudson Kam and Newport (2005) investigated what adults and children learners acquire when their input is inconsistent and variable. Their results clearly indicate that adults and children learn in different ways. While adults did not regularise the input, children did. Adult learners reproduced variability detected in the input whereas children did not learn the variability but instead systematised the input.

In this context, studies examining the sign language acquisition of Simon, a deaf child of deaf parents, are also interesting (Singleton 1989; Singleton/Newport 2004; Ross/Newport 1996; Newport 1999). Crucially, Simon's deaf parents were late L2 learners of ASL. Their use of morphology and complex syntax was inconsistent when compared to the structures produced by native speakers. However, the difference between Simon's morphology and syntax and that of his parents was striking. Overall, Simon clearly surpassed the language model of his parents by regularising each morpheme he was exposed to and using them in over 90 % of the contexts required. With this study, we have strong evidence for children's capacity of going beyond the input they have access to.

There is a substantial body of psycholinguistic studies that stress the ability of children to 'create' language in the absence of a conventional model. But it is also a well-established observation that humans in general are capable of dealing with a so-called 'unstructured environment' in a highly systematic way. Interestingly, a wide array of empirical studies reveals the human ability to learn and to modify knowledge even in the absence of 'environmental systematicity', that is, to create a system out of inconsistency (Frensch/Lindenberger/Ulman 1999). Taken together, empirical studies on the acquisition of creole and sign languages shed light on the human ability to acquire language in the absence of systematic, structured input for two reasons. First, children acquiring a creole today illustrate the case of children who are confronted with a highly variable input. Second, the study of homesigners illustrates the case of children without language input. In both cases, the children behave similarly to their peers who receive a conventional language model, that is, they generalise, regularise, and reorganise what they get as input.

More recently, several studies have focussed on the statistical learning abilities that children display (Safran/Aslin/Newport 1996; Tenenbaum/Xu 2005). Several observations indicate that we cannot exclude the possibility of children analysing the input for regularities and making use of strong inference capacities during the acquisition process. Various experiments conducted with a child population seem to support the hypothesis that children are equipped with the ability to compute statistics. If children can overgeneralise, regularise, and create new structures in language, it is also plausible that they can learn statistically. However, future work is crucial to determine the extent to which this statistical ability is compatible with a language acquisition scenario firmly grounded in a UG framework.

To sum up, we have seen that children are equipped with language-creating skills such as regularising and systematising a (possibly impoverished) linguistic system. Now that we have been able to establish the role of children in creolisation, we will turn to the role adults play in the creolisation process.

5.4. The role of adults in creolisation

Several studies concerned with the creolisation of creole languages assume that adults are the major agents (Lumsden 1999; Mufwene 1999). More recently, interdisciplinary studies have helped to clarify the role of adults in language acquisition. Findings on L2 acquisition (Birdsong 2005; Gullberg/Indefrey 2006) reinforce the view that the ability for language learning decreases with age.

Based on results from experimental second language acquisition data, it can be argued that in the initial stages, pidgin speakers must have relied on both UG and transfer. This constitutes evidence for the main role played by adults in pidginisation. However, they played a less important role in the creolisation process. Their role here consists mainly of providing input to children.

Findings in various sub-disciplines of cognitive science show clearly that adults approach the language acquisition task differently. First of all, adult learners, in contrast to children, have more elaborate cognitive capacities, but no longer have a child-like memory and perceptual filter (Newport 1988, 1990; Goldowsky/Newport 1993). In particular, differences between adults and children in terms of memory have consequences on language abilities (Caplan/Waters 1999; Salthouse 1991; Gullberg/Indefrey 2006). In addition, Hudson Kam and Newport (2005) demonstrated very clearly that the learning mechanisms in adults and children are different: adults, in contrast to children, do not regularise unpredictable variation in the input.

Interestingly, differences between adults and children are not only observed in language acquisition but also in gesture generation. In a series of experiments, Goldin-Meadow, McNeill, and Singleton (1996) demonstrated that when hearing adults generated gestures, their goal was to produce a handshape that represented the object appropriately. These adults instantly invented a gesture system with segmentation and combination but compared to children, their gestures were not systematically organised into a system of internal contrasts, that is, they did not have morphological structure. They also did not have combinatorial form. The unreliable and unsystematic nature of these gestures can be explained by the fact that these gestures accompany speech and do

not carry the full burden of communication as is the case with people using gestures primarily to communicate.

From various studies gathered so far, we thus have good reasons to stick to the assumption that adults can learn from other adults and transmit variable input to children. However, the role of regularising the input can be ascribed to children only.

6. Creolisation and recreolisation revisited

Following Chomsky's (1986) discussion of I(nternalised)-language versus E(xternalised)-language, I propose 'I-creolisation' to refer to the process of nativisation that takes place in the absence of a conventional language model in contrast to 'E-creolisation', which refers to the process at the societal level.

The converging evidence on the genesis of languages from the two groups is consistent with the view that creolisation is also at work in the development of sign languages. In this case, we refer to I-creolisation, given that this process takes place in the brain of the speakers concerned. As already mentioned, there are no reasons to focus on E-creolisation in the case of sign languages. The latter type of creolisation refers to the sociolinguistic process that is intrinsic to the formation of creole languages. I have argued that the homesign context is comparable to the creole context in two ways, namely in terms of acquisition conditions and in terms of the role played by children in acquisition. Creolisation here is understood in a broader sense as a process of nativisation that takes place when input in language acquisition is incomplete. Both data on creole languages and sign languages illustrate the process of first language acquisition with either incomplete input (i.e. creole languages) or without input (i.e. homesigners). Under these circumstances, children either reorganise the variable input or invent a new system. This scenario differs from the acquisition of established languages in that variable input leads children to be creative. Several factors such as memory, age, and the lack or small amount of experience (e.g. in the form of exposure to literacy in their L1) play an important role in the linguistic behaviour of adults (cf. Kuhl (2000) and Petersson et al. (2000) for effects of literacy, especially the development of a formatted system, for phonological processing in literate and illiterate subjects).

Parallel to creolisation, the process of recreolisation is worth mentioning. In the field of creole studies, the term was used in the seventies to refer to a phenomenon observed in the second generation of Jamaican speakers in Great Britain. According to Sebba (1997), these speakers – in contrast to the first generation of creole-speaking immigrants – apparently altered their creole to make it sound more like the one spoken in Jamaica. In this sense, the second generation of creole speakers recreolise their linguistic system through phonological and syntactic alterations. This view of recreolisation fits well with the concept of E-creolisation because of its societal implications. Using a computer model that analysed language change and its trajectory, Niyogi and Berwick (1995) convincingly showed that in a population of child learners, a small portion of this population fails to converge on pre-existing grammars. After exposure to a finite amount of data, some children converge on the pre-existing grammar, while others do not and consequently reach a different grammar. As a result, the second generation then becomes linguistically heterogeneous. The third generation of children

hears sentences produced by the second, and they, in turn, will attain a different set of grammars. Consequently, over successive generations, the linguistic composition becomes a dynamic system. A systematic look at Mauritian Creole in the seventies, nineties, and today shows a pattern of change that looks very much like the one predicted by Niyogi and Berwick (1995), namely a very dynamic but highly variable creole system (cf. also Syea 1993).

Based on the evidence provided by Niyogi (2006), I propose that the changes seen in both creoles and sign languages can be adequately explained by I-recreolisation. However, this takes place in every generation of speakers, if and only if each generation of children does not have a conventional language model. The fact that generations of speakers do not become literate in their L1 (be it a creole or a sign language) contributes to the non-availability of conventional patterns in these two language groups.

The acquisition of creole languages today is comparable to the acquisition of ASL by Simon (see section 5.3.) because both the child population and Simon are exposed to a highly variable, non-conventional language model. Taken together, these studies highlight the role of children in acquisition in the absence a conventional language model. It is exactly this condition that leads children to surpass their language models. In comparison, the first generation of creole speakers and children homesigners do invent language because of the non-availability of a language model.

7. Conclusion

At the beginning of this chapter, I attempted to provide a definition of creolisation and related issues. Parallels between creole and sign languages have been established in terms of acquisition and input. My main goal has been to show that sign languages do share certain structural similarities with creole languages, some of which had already been observed in early studies on sign languages. Recent studies have shown that some of the similarities cannot be explained by the ‘age’ of these languages, but should rather be related to the acquisition conditions in the genesis of these languages. Based on a close examination and comparison of sign languages and creole languages, I have argued that there is solid evidence for the view that creolisation is also at work in the formation of sign languages, in spite of modality-specific characteristics of languages that may influence the process. The acquisition studies on creole and sign languages do shed light on the role of children in shaping language. Both cases of acquisition can be taken as cogent empirical evidence for the human ability, especially children’s ability, to invent language (homesigners and most probably the first generation of creole speakers), or surpass their language model (Simon and creole-acquiring children today). Several studies have shown that under particular circumstances, i.e. variable, unconventional input, children regularise and systematise their input. These findings converge with the view that children play a crucial role in language formation (Bickerton 1984, and subsequent work; Traugott 1977). Creolisation is then taken to refer to nativisation across modality.

While it is plausible to argue that creolisation can also take place in the formation of sign languages, the recreolisation issue remains unclear at this stage. Interestingly,

continuing studies on sign languages might give us deeper insights into the process of recreolisation itself. At this stage, there are still many open questions. An agenda for future research should definitely address the following issues. In the light of what has been discussed in creole studies, the question arises whether recreolisation can also take place in sign languages. If yes, then we need to clarify whether it takes place in every single generation of speakers/signers. Other related issues are the links between creolisation, grammaticalisation, and language change. Furthermore, if there is creolisation and possibly recreolisation, can we expect decreolisation in the life cycle of a language? Both the theoretical analysis and the empirical findings substantiating the analysis in this paper should be regarded as a first step towards disentangling the complexities of creolisation across modality.

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37. Language planning

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Abstract

In this chapter, three aspects of language planning will be described for sign languages: status planning, corpus planning, and acquisition planning. As for status planning, in most countries the focus of attention is usually on the legal recognition of the national sign language. Corpus planning shall be discussed in relation to standardisation and lexical modernisation, followed by a short discussion of acquisition planning. Standardisation of languages in general is a controversial issue. There are only few examples of efforts to standardise a sign language. The process of standardisation of the lexicon of Sign Language of the Netherlands will be discussed as an example of a specific form of standardisation, informed by thorough knowledge of the lexical variation existing in the language.

1. Introduction

In this chapter, selected aspects of sign language politics will be discussed. In describing issues related to the use and status of a language, various terms have been used in the literature: language politics, language policy, and language planning. These terms require some clarification. The term “language planning”, introduced by the American-Norwegian linguist Einar Haugen in his 1968 article about modern Norwegian, describes “an activity of preparing a normative orthography, grammar, and dictionary for