SUMERIAN: THE DESCENDANT OF A PROTO-HISTORICAL CREOLE?

An alternative approach to the “Sumerian problem”

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I. INTRODUCTORY REMARKS

The following deals with is the so-called “Sumerian problem”, a classical problem of Near Eastern historical studies, nowadays mostly regarded as insolvable (and therefore bound to become classical). I shall propose an approach which, to my knowledge, has not as yet been discussed by specialists – viz that the Sumerian language may have evolved from a Creole language in Southern Iraq in the mid- to late fourth millennium B.C.¹

It should be told in advance that I am no creolist, not even a linguist. Item, that I am no Sumerologist. Weighing the merits to my proposal conclusively against the difficulties is thus a task which I shall have to leave to specialists. Since, moreover, the situation within the two fields still calls for the statements that “every creolist’s analysis can be directly contradicted by that creolist’s own texts and citations” [Bickerton 1981: 83], and that “die sumerologische Forschung bisher nicht einmal in den grundsätzlichsten Fragen der Grammatik zu einer einheitlichen Auffassung gekommen ist”², any attempt at conclusive evaluation of the thesis may still be premature. I hope it is no too presumptuous to believe that it might prove a fruitful working hypothesis.

¹ A first version of the paper was presented to the Thirteenth Scandinavian Conference of Linguistics, held at the University of Roskilde, January 9-11, 1992. I use the opportunity to thank Thorkild Jacobsen, Dietz Otto Edzard and Bendt Alster for extensive critical commentary to this preliminary version which I circulated just after the Congress. It hardly needs to be stated that they share no responsibility, neither for the general thesis with which only one of them agreed to some extent, nor for the errors which I have not been wise enough to expunge or ignorant enough to insert during my revision.

Without the constant critical support which I received from my late wife Ludovica during our many discussions of the topic, the paper might never have been finished. Even for this reason – as for so many others of greater weight – I shall miss her immensely. I dedicate the publication to her memory.

² Thorkild Jacobsen [1988a: 132], quoting what Adam Falkenstein said in 1939 and claiming it to be “if anything more true today than then”.

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II. THE “SUMERIAN PROBLEM”

The Sumerian language was spoken in Southern Iraq in the third millennium B.C., and was used by later Babylonian and Assyrian scribes as a classical language, surviving thus though in increasingly distorted and rudimentary form as long as the cuneiform tradition itself. Even though certain texts were still copied in the late 1st millennium B.C., the main role of Sumerian was by then to provide logograms for the writing of Akkadian (i.e., Babylonian and Assyrian).

The language was discovered in the second half of the 19th century. It was deciphered through bilingual (Akkadian+Sumerian) texts, and through the lexical lists explaining Sumerian words and grammatical forms in Akkadian and used for scribal training. Both genres were created at a time when Sumerian was already a dead language³, and for that reason they are often coloured by Akkadian grammar and by the grammatical understanding of Akkadian-speaking scribes⁴.

From one point of view, the Sumerian texts from the third millennium are thus a better reflection of the original language. These early texts, on the other hand, present us with difficulties of a different kind:

The oldest cuneiform text date from the so-called Proto-Literate period, subdivided into Uruk IV and Uruk III (so named after archaeological strata in the city of Uruk; the latter period is also labelled Jemdet Nasr, after a contemporary site). Habitually, the period is dated c. 3200 to c. 2800 B.C., mainly on the basis on the thickness of archaeological layers; calibrated C14 datings suggest that 3400 to 3000 may be more correct (cf. [Nissen 1987: 613] for this discussion). During this phase, the script was purely ideographic, and only used for accounting purposes and in word lists presumably employed in teaching. It is best not understood as an attempt to render language but rather as a representation of fixed bureaucratic procedures in equally fixed formats: The fairly strict ordering of signs in the tablets does not correspond to the temporal order of spoken words, even though, evidently, signs stand for operations or items which must have had a spoken name.

³ Or, to be more precise, when the scribal tradition had lost contact with whatever Sumerian-speaking pockets may have survived into the second millennium. This loss of contact is indeed what created the need for grammatical lists and bilingual texts.

⁴ Akkadian was a Semitic language, and thus (in contrast to what we shall see below concerning Sumerian) a declination language, particularly rich in the domain of verbal conjugation, based on a nominative-accusative-genitive case system.
The early tablets present no compelling internal evidence concerning the identity of the language in which scribes would explain their content (since the script does not render spoken language tablets could not be “read” any more than, say, the tables in the Statistical Yearbook). A supposed phonetic use of *an arrow for life* (homophones in Sumerian) in a Jemdet Nasr name seems to build upon a misreading [Vaiman 1974: 15f]. The use of *a reed for the act of returning* (*gi* and *gi₄* in Sumerian, respectively) is more suggestive; since this coincidence is isolated, however, and since bureaucratic procedures were continued throughout the third millennium, the Sumerian homophone might derive from early written legalese⁵.

A number of texts from c. 2700 B.C.⁶ onwards are intended to render some kind of language, more or less formal but indubitably Sumerian: thus royal votive inscriptions, proverb collections, temple hymns. The texts, however, are still written in a largely logographic cuneiform, only from around c. 2600 B.C. with sparing and from c. 2500 (Eannatum of Lagaš) fairly systematic use of phonetic or semi-phonetic grammatical complements; from then on signs are also written in the order they were to be read. Yet as long as the scribes had Sumerian as their mother tongue or knew it perfectly the script remained a mnemonic system; it never tried to render pronunciation precisely.

To this lack of interest on the part of the scribes to inform precisely about the details of their language comes the ambiguity of phonetic cuneiform. Even when grammatical elements are written it is often only possible to get an approximate idea about their pronunciation (which is quite important, since precisely in the writing of grammatical elements there is no one-to-one correspondence between signs and morphemes⁷). As far as grammatical categories are concerned we are often either at the mercy of later Babylonian grammatical lists or, if we do not trust these, exposed to the risk of *petitiones principii*: Categories of tense and aspect (only to name these) must be derived from the texts; but our understanding of the texts, of course, already presupposes ideas of tense and aspect⁸. Even the vocabulary is not well-established: until recently, a

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⁵ According to the hypothesis to be set forth below, homophony in the language used by early scribes may also have given rise to homophony in a proto-Sumerian creole, for which it will have been the lexifier language, and thus in historical Sumerian.

⁶ All dates are still tentative, though less so with decreasing age!

⁷ So, a sign sequence transliterated “ga-an-ši-re-en-dē-en” is interpreted in [SLa, 202, ex. 517] as /ga-i-n.ši-ere-endən/ (accents and subscript numbers in transliterations distinguish homophones; the dot in /n.ši/ indicates that the two constituents form a single semantic unit).

A striking illustration of phonetic ambiguity is offered by the recent renaming of King Urušagina of Lagaš as Uru’išimina.

⁸ The non-specialist can gain a good impression of the degree to which grammatical categories are established beyond reasonable doubt from Marie-Louise Thomsen’s recommendable *The
“collection of ideograms” ([Deimel 1925] – extensive, it is true, but primarily concerned with and based on logograms used in Akkadian texts and grammatical lists) had to serve as Sumerian dictionary; at present the first volume of a new Sumerian dictionary has appeared, but an essay review [Krecher 1988] warned non-Sumerologists emphatically against mistaking it for a dictionary of the kind they know from languages which are better understood (thus the gist, not the words of the warning; and whatever the pitch of these words it must be recognized that no dictionary can be made a present which non-specialists can use without circumspection).

Certain features of the language, none the less, were soon established beyond reasonable doubt. Of importance for the “Sumerian problem” firstly that the language was agglutinative; secondly that it was an ergative language; thirdly that the language could not easily be affiliated to any known language family – in particular that it was neither Semitic nor Indo-European.

The third observation was the origin of the “Sumerian problem”. As pointed out by Géza Komoróczy [1978: 227], Sumerian is only one of many isolated languages to be found in the region. Since, however, the Sumerians had come to be regarded as the Fathers of Civilization, their linguistic isolation was more than a merely scientific puzzle; they had to have come from somewhere (else), from some Urheimat, and the Sumerian language had to belong to a glorious language family with appurtenant race. Which Urheimat, family and race: this is the “Sumerian Problem”.

A wealth of solutions were proposed in the early years, however, as tersely noticed by Komoróczy [1978: 226], without any sufficient proof, even if only measured by the standards of the time. A pernicious interpretation of the strategy might state that the agglutinative character of Sumerian promoted it to membership of the best-known agglutinative group, i.e., declared it a relative of Hungarian; similarly, ergativity was taken to prove its family links with Georgian or with Caucasian languages in general, where ergativity was first investigated. Among the more fanciful proposals counts the claim made by Christian [1932: 122] that Sumerian was a Caucasian language which

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*Sumerian Language* [SLa], which discusses many of the open problems and the range of suggested solutions. As supplements, a number of reviews can be recommended – thus [Edzard 1988], [Gragg 1988], and [Jacobsen 1988a].

9 Since the use of ergativity as a general linguistic type was only established in the 1960es, the original terminology was evidently different. Perhaps the first author not only to notice that the “subject” was dealt with in changing ways but also to use this for general characterization was Victor Christian [1932: 122], who spoke of the “stative” character of the language.

10 Strictly speaking, the second Sumerian problem. Since Sumerian was originally discovered as logograms inside Akkadian texts, in lexical lists explaining the pronunciation and the Akkadian equivalents of Sumerian words, and as bilingual texts, the first Sumerian problem was the question whether it was a genuine language or simply an allography for Akkadian. This question was definitively decided around the turn of the century, and does not concern us here. Tom Jones’ anthology [1969] contains texts dealing with both variants of the problem.
had impressed its grammar on a mixed Semitic and Sudano-Uralo-Altaic-Tibeto-Burmese substrate, the former felt in particular in vocabulary and word formation principles, the latter in phonology.11

Similar solutions to the problem have appeared in recent decades, but only sparingly.12 The dominant feeling (expressed, e.g., in [Haldar 1965]) is that the problem is real, but probably insoluble, and that the formation of the Sumerian culture will have taken place within Southern Mesopotamia. Somewhat more radical is [Komoróczy 1978], who considers Sumerian as just one of many isolated languages, present since time immemorial in the region; according to Komoróczy, Sumerian more or less randomly took over the role as leading language for a while (eventually to yield to Akkadian, which was replaced after another millennium by Aramaic, followed on its turn by Arabic). According to Komoróczy the search for a Sumerian Urheimat, as indeed for any Urheimat in the classical sense, is about as mistaken as is the coupling of “race” and language.

III. SETTLEMENT DEVELOPMENT AND CREOLOIZATION

Since Komoróczy wrote his paper, more detailed archaeological knowledge about the development of settlement patterns and density in the region has become available, which suggests a slightly different interpretation and opens new linguistic perspectives only hinted at by him.13

During the fifth and the earlier half of the fourth millennium, most of the later Sumerian region was covered by salt marshes, or at least regularly inundated, and thus unfit for agriculture.14 Settlement was scattered, and not organized in any hierarchical pattern. During the same period, surrounding areas were much more densely populated; in Susiana in the nearby north-east, settlements became organized in a three-level hierarchical system (“capital”, “provincial centers” and “villages”, so to speak).

11 In [1961], Christian left out the African segment of the substratum and inverted the role of Caucasian (now the language of Uruk IV and III) and Tibeto-Burmese (now arriving with an immigrant ruling group over the sea after Uruk III).

12 Maurice Lambert [1952] and [1963] reviews three specimens: one Hungarian, one Georgian, and Christian’s revised theory.

13 In his note (31): “[…] Beachtung verdient allerdings die Literatur zum Problem der Sprachmischung, s. etwa D. H. Hymes (Hrsg.), Pidginization and Creolization. […]”.

indicating the rise of a statal structure centered around the Temple bureaucracy in Susa. That we are indeed entitled to speak of a bureaucracy follows from the use of a fairly advanced accounting system: “tokens”, small calculi made of burnt clay and of differentiated form and magnitude, enclosed in sealed clay envelopes (“bullae”) used *inter alia* as bills of lading.\(^{15}\)

Around the middle of the fourth millennium B.C., climatic changes involving diminishing rainfall and concomitant lower water-levels made possible the introduction of irrigation agriculture in southern Mesopotamia, and suddenly (i.e., without any archaeologically significant intermediate phase) the population density rose to higher levels than ever before anywhere in the region.\(^{16}\) The settlement structure became four-tiered, centered on the city Uruk,\(^{17}\) and the administrative procedures known from Susa were adopted during the “Uruk V”-phase (immediately preceding Uruk IV).

In itself this might look as evidence for an organized Susian colonization. However, a number of cultural forms show local continuity, including the essentials of temple ground-plans and many other religious customs [Oates 1960: 44-46]. The ruling class of the new society – those who are shown in the glyptic of cylinder seals etc. supervising the delivery of temple offerings and the beating of pinioned prisoners – will thus have been autochthonous.\(^{18}\) The large majority of the working population – many of whom may have worked on temple domains or on land allotted to high officials and have received rations in kind, and some of whom may appear pinioned and beaten-up in the favourite motif of seals – will have been immigrants (the population increase seems much too rapid to have resulted from local breeding).\(^{19}\) Perhaps they had been forced to leave surrounding areas by that same draught which changed the southern Mesopotamian swamps into agricultural land.

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\(^{15}\) A review of the evidence for this, including the prehistory of the token system, is given in [Høyrup 1991].

\(^{16}\) Cf. [Nissen 1983: 60] and [Liverani 1988: 114-123].

\(^{17}\) Growing in the early third millennium to the largest city in world history before Imperial Rome.

\(^{18}\) Another argument against Susian control over the Uruk development is the absence of writing from Susa during the Uruk IV period.

Colonization processes cannot be ruled out *a priori*, one should observe. Already during Uruk V, Uruk outposts appear to have been established (soon to be abandoned again) in northern Mesopotamia. The introduction of writing in Susa (contemporary with Uruk III) also follows upon the inclusion of Susa in a network connecting settlements in much of the Iranian highlands, presumably with the center somewhere to the east.

\(^{19}\) Remarkably, the Uruk IV form of the sign for a female slave (*GEMÉ*, *MEA* #558) is a juxtaposition of the sign for a female (*MUNUS*, a pubic triangle; *MEA* #554) and the pictograph representing the eastern mountains (*KUR*, *MEA* #366); the sign for a male slave (*ARAD*, *MEA* #50) has a variant form of *KUR* superimposed on the male sign (*UŠ*, an erect penis; *MEA*, #211).
Creolization

As mentioned above, the linguistic situation in the region was characterized in the third millennium by the presence of numerous different languages 20. We can thus safely presume that the rulers of the Uruk state and the immigrants spoke different languages, and that even the immigrants had no common language. If to this we add the evidence offered by glyptic and by accounting texts for a “plantation economy” we must conclude that Uruk V to IV has been the ideal base for the development, first of a pidgin and next of a creole, all conditions (with a slight proviso for number 1) corresponding apparently to those which were listed by S. W. Mintz [1971: 493f] in his description of the particular historical circumstances which produced the Caribbean creoles 21:

1. the repeopling of empty lands;
2. by more than two different groups;
3. one of which was smaller and socially dominant;
4. and the other of which was larger, socially subordinate, and included native speakers of two or more languages;
5. under conditions in which the dominant groups initiates the speaking of a pidgin that becomes common to both groups – that is, conditions under which the dominant group, at least, is bilingual, and the subordinate group multilingual; and
6. there is no established linguistic continuum including both the pidgin and the native language of the dominant group; and
7. the subordinate group cannot maintain its original languages, either because the numbers of speakers of any one of its languages are insufficient, or because social conditions militate against such perpetuation, or for both reasons.

Even within pre-immigration Southern Mesopotamia, several languages may have

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20 As pointed out by Colin Renfrew [1988: 173f; 1989], the survival of numerous languages depends on the character of the region as a focus for the rise of food production, causing many population groups to expand numerically at a more or less equal pace.

21 When it comes to details, the situation will of course have been different. Even though much social engineering was certainly applied by the masters of the new Uruk society, we have – to mention but one important example – no evidence that anything corresponding to the deliberate mixing of Slaves speaking different African languages as a means to avoid insurrections (cf. [Cassidy 1971: 205]) was undertaken. To the contrary: from the importance of kinship or similar groups in archaic peasant cultures we may argue that most immigrants will have arrived in groups possessing a common language and will have conserved it for a while unless strong measures were taken. But if this is so, condition (7) will only have been fulfilled with a certain delay as compared to what happened in the Caribbean, and the sociolinguistic situation may have reminded more of Papua-New Guinea than of British West India or the instant melting pot of Hawaii (where the creole arose within one generation after the emergence of a pidgin) – and creolized Tok Pisin may thus be a better model than Hawaii Creole.

The creole which can be assumed to have developed in Uruk is hence not necessarily an instance of what Derek Bickerton [1981: 4] regards as a “true creole”.

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been present, and insofar as the different communities have interacted with each other and/or with communities in the highlands we may guess that some kind of jargon may have existed and facilitated the emergence of a pidgin. This possibility notwithstanding, the main lexifier language for a resulting South Iraqi creole can safely be assumed to have been the language of the Uruk rulers, while the most important substrate languages will have been those of the immigrants. Evidently, main lexifier and substrates may have been typologically and/or genetically closer to each other than the lexifier and the substrate languages of modern plantation creoles, and the outcome may thus have made specific features survive to a larger extent than in these.

As parallels, we may think both of Chinook Jargon, an early form of which predated the American and English explorations around the Columbia River [Kauffman 1971: 275f], and of the Portuguese-based pidgin which seems to have existed around the West African trading stations and to have been known by some of the slaves who were brought to the West Indies – constituting only a small minority, certainly, but linguistically influential through their function as formal and informal interpreters [Alleyne 1971: 179f, 184].

In spite of the possible role of such a Portuguese-based pidgin, Caribbean creoles are mainly lexified by the language of the local colonial power (in the cases of Sranan and Negerhollands the language of an ephemeral power, but – all the more significant – not Portuguese). Even Chinook Jargon, moreover, tended in its later years to replace French words by English ones.
as it happened in the case of Chinook jargon ([PCLan, 259]; cf. [Silverstein 1971: 191] on the phonology). Even Chinook jargon, however, has many characteristics setting it apart from its linguistic background but approaching it to other pidgins. While certain shared super- and substrate features may plausibly have survived in the Uruk creole, it will still be useful to take into account its creole identity.

Writing

During Uruk V and IV at least, the creole will hardly have been the language of the ruling class. But the members of this class will have known it and used it as European managers used the pidgins of modern plantation economies; they are also likely to have apprehended it in much the same way as Europeans apprehend pidgins. This is the basis for a first derived conjecture.

As told above, writing was created during Uruk IV. The starting point was the token+bulla-system. Already in Uruk V and contemporary Susa it had become the norm to mark the surfaces of bullae through impression of the tokens they contained (or to make similar marks by means of a stylus). This technique made it possible to “read” the bulla without breaking it. As it was quickly realized, it also made it possible to dispense with the content, and flattened lumps of clay with impressions representing tokens came into use – so-called “numerical tablets”.

The bulla-token system, as well as its representation in the numerical tablets, presupposed integration of quantity and quality. A token for (say) a particular basket of grain would be repeated three times to indicate three baskets; three sheep would be represented by three disks, each representing a sheep. One crucial innovation of the Uruk IV script was its separation of quality from quantity: A sequence for pure numbers (actually two different sequences, but details are immaterial) was seemingly created at this stage, and two sheep could now be represented by the sign for 2 together with a cross-marked circle representing a sheep (or, better, representing the original

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23 For convenience I shall frequently refer to Suzanne Romaine’s *Pidgin and Creole Languages* [PCLan] when comparing Sumerian features to the characteristics of creoles. The book is recent (1988) and contains a fairly encyclopedic coverage of research results and viewpoints, outweighing its occasional slips (e.g., the omission of a crucial “different from” twice on p. 262). Supplementary information will be drawn from John A. Holm’s *Pidgins and Creoles* ([PCs]; also from 1988), which has a conspicuous substrationist axe to grind; from Peter Mühlhäuser’s *Pidgin and Creole Linguistics* ([PCLin], 1986); and from various research publications.

For Sumerian grammar, I shall use Marie-Louise Thomsen’s deservedly praised *The Sumerian Language* [SLa] from 1984 in a similar manner, together with publications with a more specific focus – in particular publications which have appeared in recent years.

24 The whole development from tokens via numerical tablets to the Uruk IV script is conveniently summarized in [Nissen, Damerow & Englund 1990].
Most non-metrological signs (of which circa 1000 may have existed, depending on estimates of the representativeness of extant tablets and on the way composite signs are counted) were genuine pictographs, representing the thing itself and not its symbol in the token system. These are completely new and apparently created *ex nihilo*, with no other precursor than the accounting by means of numerical tablets and tokens in bullae. In many cases composite signs look as if they had been produced not as reflections of corresponding composite words but rather as conceptual composites. Thus, the sign designated GU₇ and meaning something like “apportioning of ration” is composed from SAG, a head, and NINDA, representing the bowl in which rations were given (see Figure 2).

Single “written” signs exist in many non-literate cultures, for instance as seals or owners’ or producers’ marks on ceramics. But the familiarity with such marks never seems to suggest to their users the idea of writing when it is not fecundated by knowledge of existing writing systems: in all probability, the Egyptian hieroglyphics as well as the proto-Elamite script used in Susa during Uruk III were inspired by knowledge of the Uruk invention; the Indus script was created by trading partners of the Sumerians; and even Chinese writing may well have been created by people who were informed about the existence of systems of writing. It may therefore be

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The correspondence between the early form of certain cuneiform signs and tokens was first noticed by Denise Schmandt-Besserat [1977], who also discovered that the token system known from Susa (but not the bullae) can be traced back to the eighth millennium B.C. Later works from her hand as well as contributions from other scholars have modified many of her original claims and interpretations (not least her interpretation of tokens as representing the number sequence known from third millennium Sumerian texts), but most of the backbone remains.
Tok pisin  
grass  
mausgrass  
grass belong fes  
grass bilong hed  
grass bilong pisin  
grass antap long ai  
grass nogut  

English  
grass  
moustache  
beard  
hair  
feather  
eyebrow  
weed  

Head  
(115)  

Tongue  
(32)  
Whistle?  
Puff?  
(30)  

Silence  
(27)  
Beard  
(18)  

Drink  
(35)  
Pray  
(26)  

Thirst  
(28)  
Mirror  
(29)  

Mouth  
(15)  

Grind? Chew?  
(33)  
Above?  
(412)  

Secret  
(19)  

Head-dress, turban?  
(419)  

Fury  
(329)  

Figure 3. A sequence of Tok Pisin compounds, all containing the constituent «grass» (from PCLan, 35), and a sequence of cuneiform signs all derived from the sign for «head» (from MEA). Some of the cuneiform signs are shown in their Uruk IV-III-shape and in their third millennium shape. Others are only displayed in third millennium shape, because they have not been located in the Uruk material. The meanings are derived in part from later logographic applications of the signs, in part from the signs themselves. That the result may be only approximate in certain cases is exemplified by the sign for ration apportioning, which according to its later use might seem to mean simply «eat». The sign for «praying» will be noticed to correspond to a Sumerian circumlocution mentioned on p. 38, «(by the) nose hands to hold».  

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assumed that independent invention of writing calls for particular circumstances suggesting in some way that meaning can be expressed in other, more analytical forms than the flow of grammatical speech. Such conditions have probably been present precisely in Uruk, if indeed a pidgin or a creole was spoken. To superstrate speakers, a sentence like *dei wawk feet go skul* would sound like a distorted pronunciation of “they walk feet go school”. If they know the creole well enough to interpret it as “they went to school on foot” they have a demonstration *ad oculos* that “go” can be used to represent directionality; that “walk” may be used to represent all grammatical forms of itself and a number of semantically related verbs (including “go”); and (unless they have discovered that the creole has its own rules governing word order) that meaning may be expressed without respect for the linear organization of spoken sentences. A circumlocution like *gras bilong fes*, heard as “grass belong face” and interpreted as “beard”, will suggest the use of semantic composition as a way to express concepts with no signifier of their own within the system, perhaps organized in groups with one common element, as in the Tok Pisin sequence “gras bilong ...”, cf. Figure 3. At the same time, the typical multifunctionality of pidgin terms (thus Tok Pisin “sik” used where English speakers would shift between “sick”, “ill”, “illness” and “disease”, cf. [PCLan, 38]) foreshadows the multilogographic use of a single ideogram. Essential features of Uruk IV writing, in particular the features distinguishing it from representations of spoken language, are thus shared by the way the superstrate speaker will hear a pidgin (and even a creole, which a superstrate speaker is likely not to distinguish from the pidgin). Even the use of determinatives (the sign for wood written together with signs for objects made of wood, etc.) may have been inspired by features similar to the recurrent *pela* of Tok Pisin (etymologically derived from “fellow” and hence misunderstood by superstrate English speakers as a noun identifier) or the use of *gauna* (“thing”) in expressions like “smoke-eat-thing” (pipe), “fire burn thing” (match) in Hiri Motu [PCLin, 171].

Pidginization and creolization may thus have been the context which suggested to the Temple bureaucrats of Uruk IV how to expand their management technologies.

26 Hawaii Creole English, quoted from [Bickerton 1981: 131].

27 Tok Pisin, quoted from [PCLan, 35].

28 Or with even wider semantic range when metaphorization is used, as in Tok Pisin “as” (<“arse”), “seat, buttocks, origin, cause” [PCLin, 168].

29 If nothing more it is at least amusing that Landsberger [1943: 100] stated a much stronger form of this possible connection to be indubitable truth. That quest for order which he considered a distinctive characteristic of Sumerian thought, manifesting itself among other things in the lexical lists of the proto-literate periods, was something to which “die Sumerer durch die Form ihrer Sprache prädestiniert [waren]” – *viz* because the Sumerian language is rich in sequences similar to the “gras”-sequence of Tok Pisin.
when faced with the needs created by increasing social complexity.

It should be emphasized that nothing suggests the script to be an attempt to render the pidgin, while much speaks against such a hypothesis – not least that the overlap between the communicative functions and thus also the semantic span of the spoken pidgin and the written administrative texts will have been quite modest. Only the idea of representation through separable semantic building blocks will have been borrowed.

**IV. SUMERIAN?**

So far only arguments in favour of the emergence of a creole in Uruk V-IV have been discussed, together with the conjecture that observation of this creole may have contributed to the managers’ invention of writing. A different question is whether the predicted creole (the existence of which I shall from now on take for granted for stylistic reasons, incessant repetition of “hypothetical” or similar terms being rather cumbersome) has anything to do with Sumerian.

*If* it has – more precisely, if Sumerian has developed from a mid- or late fourth millennium Uruk creole – then the “Sumerian problem” disappears. “The Sumerians” have come from nowhere as a group (not to speak of “nation” or “race”); instead, they have emerged from a local melting-pot. The Sumerian language, on its part, will belong no more to any larger language family than Tok Pisin belongs to the Germanic stock. Naturally, the main lexifier language may still have belonged to a language family known from elsewhere; but even if this should be the case (which, if we follow Komoróczy and Renfrew, is not too likely), identification of this family will be no more easy some 5000 years after the event than it would have been to discover in the language of Wulfila’s Gothic Bible a cognate of the lexifier of Tok Pisin if Medieval and Modern Germanic languages had been lost.

Alternatively, one might infer from the similarities that the same cognitive strategies were appealed to in the invention of writing as in the development of a pidgin. However, the conscious construction of an extensive and elaborate system is very different from the accumulation of individual communicative emergency solutions which ends up as a pidgin; it is thus not very likely that even the same fundamental cognitive processes would produce structurally similar results in the two situations. Emulation of the structure of the final outcome of pidginization as this is conceived by outside observers, on the other hand, cannot avoid to produce at least superficially similar patterns, even though the cognitive process is now different.

The point where similarity between cognitive processes certainly plays a role is in reception: The reason that the proto-cuneiform script can function as a communicative system (within a well-defined context, that of bureaucratic procedures) will not be different from the reason that an early pidgin can function (even this within a restricted context).
Whether Sumerian has developed from a creole – this is a question which is best approached through a description of what appears to be the relevant properties of the language and compare with characteristic patterns of creoles. Since, as argued above, an Uruk creole is more likely to have developed from a stabilized than from an embryonic pidgin, cautious comparison with stabilized and expanded pidgins will also be relevant for the argument; investigations of the maturation of Tok Pisin show indeed that the creolization process does not differ in character from the process which makes expansion follow upon stabilization (see [Sankoff & Laberge 1974]; [Sankoff & Brown 1976: 663f]; and [Woolford 1981]).

At first, however, a few general remarks must be made. We know that the language in which rulers made their inscriptions from c. 2700 B.C. onwards was Sumerian. At this moment, maybe centuries before, the creole had ceased to coexist with the superstrate. Either it had disappeared, or it had swallowed the superstrate. Since the superstrate will have had no metropolis where it existed in unpolluted form, and which could provide a “target” for decreolization, absorption of the superstrate is inherently more plausible than disappearance of the creole.

Even in 2700 B.C., however, many centuries had passed since the probable phase of creolization; another three to five hundred years later, when sign order corresponded to word order, and when grammar had come to be fairly well reflected in writing, what had once been a creole will have developed many features which change and mask its original character. It is thus not as much Sumerian itself as the traces of its earlier character which we shall have to confront with characteristic creole patterns – and it is what can be surmised about the development of creoles in the absence of a superstrate target for decreolization that shall be confronted with mature Sumerian. Given the disagreement about how to interpret grammatical structures in this language and about the universal characteristics of creoles, the procedure must by necessity be tentative, and the outcome frail.

**Phonology**

Basing himself on “what is reported to occur in pidgins, creoles and the low varieties in diglossic situations, in short, in simplified registers”, M. Lionel Bender [1987: 52] suggests that the phonological inventory of creoles (by which he means Bickertonian “true creoles”) may be something like the following:

- **Consonants:** / p, t, k, b, d, g, f, s, m, n, l-r, w, y /
- **Vowels:** / i, u, e, o, a /

and for the statement that creoles have “no initial or final consonant clusters or geminates”. They have a simple syllable structure with “no morphophonemics aside from automatic variation such as assimilation of nasal to following stop”.

This list is tentative and meant to represent “a set of possible phonological
universals of creoles” and hence not claimed to represent an exhaustive description of each single creole. Scanning of the quotations in the literature on creole languages shows indeed that overall agreement with the pattern often goes together with specific variations. It is thus obvious that some creoles have diphthongation (but this may be implied by Bender’s consonants /w/ and /y/) or nasalized vowels; other quotations are spelled in ways which must be meant to suggest š. The material presented in [PCLin] (pp. 206-213 for creoles, and pp. 177-181 for expanded pidgins) and [PCs, 105-143] (Atlantic creoles only) makes it even more clear that Bender’s system is only a simplified average31. Still, this average is a surprisingly fair approximation to Sumerian phonology, in particular when supplemented by the most obvious omissions (see [SLa §4-34]). As far as it can be reconstructed from our Akkadian sources, the Sumerian phonological inventory coincides with Bender’s, plus some /h/ (/h/?), some /š/, some /ʒ/ (/ʒ/?), some /z/, some /dr/ (retroflex /d/?), possible (but far from established) occasional nasalization of /i/, absence of /f/ and possible absence of /o/; phonemic tone has been suggested as a way of distinguishing apparent homophones, but there is no other evidence for tone32; /l/ and /r/ may alternate (creole-like), as may /h/ and /k/ or /g/, supporting the identification of /h/ with Akkadian /h/. As in typical creoles, initial and final consonantal clusters are absent, and syllable structures are simple (/dr/ is only manifested through a following syllable beginning with /r/, and even final consonants tend not to be written)33. The verbal prefix chain (see below) is characterized by vowel assimilation and a limited form of vowel harmony, but at least the latter may be a dialectal phenomenon34 and appears to have arisen only toward the mid-third millennium [Jacobsen 1988a: 126]. Appearance of the phenomenon only around 2500 B.C. (and then only in a limited form) may be taken as a hint that

31 One may also take note of R. M. W. Dixon’s observation [1980: 72] that Australian creoles “have phonological systems typical of Australian languages”. As it turns out, however, these creoles may contrast voiced and voiceless sounds even though this is not done in the substrates, and the actual phonological system as described by Dixon comes close to Bender’s average.

32 However, tone exists in certain creoles [PCs, 142f].

33 The question of the so-called “pre-Sumerian substrate”, which certain scholars affirm to discern because it deviates somewhat from this simple pattern (and which according to the present thesis can be no “substrate”), is dealt with in the final section of the present chapter.

34 However, a regionally specific orthographic style seems more plausible to me, since the harmonization characterizes Old Sumerian texts from Lagaš and Ur. These are cities which, because of their rise to political prominence under Gudea of Lagaš and the Third Dynasty of Ur, could be expected to have any particular dialect of theirs accepted as standard language (as London English and Isle de France French were accepted) in the Neo-Sumerian phase. Instead, the vowel harmony disappears even where it had been present, and the scribes return everywhere to a more analytical spelling, suggesting that this norm is rooted in scholastic grammatical analysis and not on actual pronunciation. The particular Lagaš-Ur-orthography, on the other hand, must be supposed to reflect pronounced vowel harmony, being an innovation which violates grammatical analyticity.

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the elements of the prefix chain had only recently been transformed from free into agglutinated morphemes.

The lexicon

Pidgins, it is well known, have a reduced lexicon, and compensate for this through circumlocutions which in time, not least during creolization where a language developed for a restricted range of situations comes to function as an all-purpose language, becomes fixed and eventually reduced or contracted (cf. [PCLan, 33ff]).

In Sumerian, the number of independent, “primary” nouns is surprisingly restricted35 (cf. [Kienast 1975: 3-5], and [SLa, §48-64]). The number of compound nouns is correspondingly large, even within what could be regarded as core vocabulary. Moreover, while the grammatical elements of the verbal pre- and suffix chains have become phonetically fused and thus lost their independence (cf. above on vowel harmony, and the example quoted in note 7), the constituents of compound nouns remain separate in late third-millennium Sumerian, and they are not replaced by homophones. The composite character and the underlying meaning of the expressions will thus have been kept in mind, in contrast to what happened to the agglutinated grammatical elements.

Many of the compounds still look astonishingly like reduced pidgin circumlocutions: di-kud.r, “claim–decide”, i.e., “judge”, níg.ba, “thing–give”, i.e., “gift”36. A favourite composition type, in general, consist of níg+(NOUN)+VERB (níg = “thing” [SLa, §59]) corresponding exactly, reversed order apart, to an oft-quoted type from Hiri Motu (kuku ania gauna, “smoke-eat-thing” for “pipe”, etc., cf. above). Others are somewhat more opaque, combining familiar nouns or verbs with elements with no meaning of their own (similar to the English suffix -hood, which corresponds to the Sumerian element nam, possibly “what it is”, derived from the copula me).

Primary verbs are more abundant. [SLa, 295-323] lists some 200 (including a restricted number of stative verbs which older grammars would count as adjectives), without claiming the list to be exhaustive. None the less, compound verbs are numerous and play an important role even within core vocabulary [SLa, §528-534]. In view of the exorbitant role of the Temple in the social fabric and the importance of prayer37

35 Unless, which is not very likely, a large number of signs or sign-groups possess as yet unidentified and unsuspected readings as non-compound nouns.

36 Since Sumerian does not distinguish participle and infinitive functions of the verb morphologically, we might of course formulate the circumlocutions in ways which disturb our ears less (“the decider of claims”, etc.). But precisely the same holds for pidgins and creoles.

37 Or whatever the precise shade of that awed adoring presence in the temple which is customarily translated as a “prayer”. The crux of the argument is that an essential aspect of religious life in a theocratic society was described by a circumlocution with no relation to the religious essence.
in the cult it is thus striking to find “praying” expressed as k i r₄-š u - g ál, “[by the] nose hands to hold” ([Kienast 1975: 2] – cf. the corresponding composite sign in Figure 3). Expressions like this are kept together in stricter order than metaphorical expressions would be, but the constituents remain as individualized as those of compound nouns, and homophonous substitutions are absent. What is more, the interpretation of the compound as “primary verb plus object” remains so evident to the users of the language that the “real” object of transitive compound verbs appears in a dimensional case, normally the locative-terminative [SLa §531].

All in all, while many compounds might be reductions of original circumlocutions, the tendency toward genuine contraction (leading to the loss of comprehended meaning and to phonetic merger) is so restrained that writing may be suspected of having played a conservative role – unless phonological conditions have hampered reduction.

The sentence

In a first approximation, Sumerian can be characterized as a SOV-language, the usual order of the transitive sentence being

Subject - Object - Verb

while that of the intransitive sentence is

Subject - Verb

Since Sumerian is an ergative language, however, and since there are reasons to believe that the transitive subject has emerged from reanalysis of a dimensional case (cf. below), this can only be a first approximation. The “usual” order, furthermore, is only compulsory in so far as the verb is always in final position; transitive sentences where the patient precedes the agent are highly marked, but it is not uncommon that a dimensional case precedes the subject [SLa, §52].

A better description of the sentence appears to be

n(NP) - V

since the first part of the sentence consists of one or more noun phrases in the form of nominal chains (which may include subordinate clauses as well as simple or nested genitive constructions and further suffixes), while the second part is a verbal chain which refers in pre- and suffixes to the foregoing nominal chains. While the agent, the intransitive subject and the patient receive privileged treatment, it is hardly possible

of the act.

38 Actually the situation is more complex, and we have to distinguish “one-” and “two-participant” primary verbs. These details do not affect the observation that the nominal constituent of the compound is treated as the authentic patient of the verbal constituent.
to single out one nominal chain as “subject” and to include the others in a “predicate” verb phrase\(^{39}\). Sumerian thus exemplifies the need for that analysis of the simple transitive sentence as

\[ \text{NP}_A - \text{NP}_p - V_{tr} \]

which was proposed by Dixon [1977:382]\(^{40}\).

Bickerton, creolists will remember, argues [1981: 53 and passim] that the verb and not the verb phrase may be the original constituent of the sentence in creoles (and thus, according to his view, in phylogenetic language development). He further points out that the concept of the verb phrase fits VSO languages badly because it would be “a discontinuous constituent in deep structure” – an argument which is also of some value in the case of Sumerian, given the ease by which dimensional noun phrases (belonging, if anything, within a verb phrase) can be moved to the left of the subject\(^{41}\).

The absence of the verb phrase structure from Sumerian is an interesting parallel to Bickerton’s observations on Guyanese creole, and fits his suggestion concerning the secondary nature of this structure well. The verb final sentence structure, on the other hand, is somewhat problematic, in particular because it cannot be explained away as a late development\(^{42}\). Most creoles, and most of those pidgins which are sufficiently

\(^{39}\) An analysis of the sentence which points to the special status of agent and patient/intransitive subject was already formulated by Gene Gragg [1973: 91]:

\[ S \rightarrow \text{NP} (\text{Adv}) \text{ NP Verb}, \]

where (Adv) consists of noun phrases in dimensional cases.

\(^{40}\) Originally, Dixon proposed this scheme in order to accommodate the existence of a continuum between syntactically ergative languages like Dyirbal (whose transitive sentences could also be described by the more traditional structure NP\(_p\) — VP, where the VP is V\(_{tr}\) — NP\(_A\)) and syntactically accusative languages (which, irrespective of their degree of morphological ergativity, fit the structure NP\(_A\) — VP, where VP is V\(_{tr}\) — NP\(_p\)). That Dixon’s scheme seems to be required by Sumerian suggests that Sumerian is indeed to be found somewhere between the two poles, i.e., that Sumerian possesses a significant but not pervasive degree of syntactical ergativity. Anticipating the below discussion of Sumerian ergativity we may note already here that this observation can be supported by direct arguments. Thus, on one hand, the Sumerian reflexive pronouns only refer back to subjects, but to agents and intransitive subjects alike [SLa, §129ff], which suggests the existence of a common syntactical subject category (cf. [Anderson 1977: 335]). But on the other, as we shall see below, the character of the perfective as the unmarked aspect suggests that at least the initial status of the agent was more peripheral than reconcilable with a subject function; the way causative constructions are built points in the same direction – in particular the verbal chain in three-participant constructions, where the underlying subject is “reflected” in oblique case elements [SLa, §284].

\(^{41}\) If we take the stance that the noun phrase to be singled out from a transitive sentence should be the unmarked patient as in Dyirbal, while the marked agent noun phrase should belong within the verbal phrase, even the normal Sumerian word order would make the verb phrase discontinuous. The relevance of this observation, however, depends on the precise degree of Sumerian syntactical ergativity, cf. note 40.

\(^{42}\) Akkadian, indeed, is verb final, in contrast to other Semitic languages, which can hardly be but a consequence of early (i.e., early third millennium) interaction with Sumerian (see [von Soden
stabilized to have a rule-based word order, are SVO (cf. [PCLan, 30f]). Some of the latter, however, are not, and since those which are mentioned by Suzanne Romaine (Hiri Motu, apparently OSV; Trader Navajo, VSO; Eskimo Trade Jargon, SOV) all belong to the small group of non-European based pidgins, one may speculate whether the predominance of the SVO ordering could perhaps be nothing but a reflection of the predominance of European superstrates\textsuperscript{43}. If this is so, the Sumerian sentence structure may be less anomalous with regard to a possible creole descent than the statistical data of creolists would make us believe.

**Gender and animacy**

Like creoles, Sumerian has no grammaticalized gender distinction, if this is understood in the restricted masculine/feminine sense. Another distinction is present, however, similar to what appears to be the original Indo-European distinction between neuter and masculine+feminine\textsuperscript{44}. On many levels, Sumerian distinguishes between personal and non-personal. Non-personal nouns may occur as agents, but they seem often to do so when the action involved suggests that they are personified (“The house bowed down its neck ...” – [SLa, ex. 161]; cf. also Jacobsen’s explanation of the origin of Sumerian ergativity as reported below); and only persons may stand in the dative case. Only non-personal nouns, on the other hand, occur in the locative, the ablative-instrumental, and (with some exceptions) the locative-terminative. Only persons can be explicitly pluralized through suffixing (non-person nouns stand indiscriminately for individuals and collectives). Third person personal pronouns only exist for persons (evidently, the first and second person are persons). Possessive suffixes as well as “pronominal” elements in the verbal chain exist for both personal and non-personal, but differ.

Many stabilized pidgins and creoles do not have so sharp a distinction in so many

\textsuperscript{43} It may be of interest that Japanese, also suspected to be a post-creole [PCLan, 65], has the basic word order SOV.

\textsuperscript{44} Or to what became masculine when contrasted by a later developed feminine, if this is what happened. The crux of the parallel – and the justification for treating gender and animacy as related categories – is simply the presence of a distinction between genders with and a gender without a nominative case.

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1952: 2]). We may add that Sumerian is also postpositional, as it is to be expected in SOV-languages (cf. [Comrie 1981: 89]); that “adjectives” (see below) follow nouns is to be expected from their character of stative verbs (cf. Margaret Langdon’s analogous analysis [1977: 258-261] of Yuman). The only noteworthy deviation from standard expectations concerning SOV languages is the genitive construction, where the rectum follows the regens. Even here, as we shall see below, the apparently anomalous word order turns out to be in all probability an regular consequence of the verbal origin of the genitive suffix. Everything hence suggests the SOV word order to be original.
dimensions; many, on the other hand, distinguish along some of the dimensions, not least as regards the grammaticalization of the plural. In Tok Pisin, e.g., which mostly has no pronominal distinction between “he” and “it”, the plural marker ol seems first to have been used for persons only, and even in the creolized varieties plural marking of non-person nouns remains optional [Mühlhäusler 1981: 44f, 55f and passim]; similarly, Naga Pidgins tend to pluralize either persons only or (in certain dialects) animates only [Sreedhar 1977: 159f]. So do most Atlantic creoles [PCs, 193]. The tendency appears to be fairly general.

The noun and the nominal chain

As mentioned, number can only be unambiguously marked for Sumerian nouns of the person category, viz by means of a suffix /-e ne/. This suffix has been tentatively analyzed by some scholars as a reduplicated deictic /-e/ with inserted hiatus filler /n/ [SLa, §69]. More suggestive (and less in need of specious explanations) is its coincidence with the third-person-plural perfective subject suffix /-e ne/, as well as its closeness to the third person plural pronoun /e ne ne/ and the second- and third person personal plural possessive suffixes /zu.((e).ne).ne/ and /a ne ne/ [SLa §65, 91, 101, 290, 294].

The difference between /-e ne/ and /ne ne/ looks like a reduplication, a feature which is also used with nouns as a pseudo-pluralization indicating totality (é, “house”; é-é, “all the houses”). Since at least the second person plural possessive suffix may indeed appear without the usual reduplication is seems reasonable to assume a basic identity between the nominal pluralizing suffix and the various personal pronouns and suffixes.

Enclitic use of the third person plural pronoun as a noun-pluralizing device is widespread in creole languages [PCLan, 60f], and thus a feature which supports the identification of Sumerian as a post-creole45.

45 Holm [PCs, 193] claims that the feature is so rare in non-creole languages that it can be taken as an unambiguous borrowing from West African substrate languages where it does occur. To the extent that Holm has estimated the frequency of the feature correctly, the fact that it also occurs in Sumerian might suggest it rather to represent a universally present option in pidginization and creolization – and, at the same time, to be strong evidence for the creole origin of Sumerian. Since he may have overstated his case to some extent (Jacobsen [personal communication] suggests that Akkadian -u¯ might have the same origin), none of the two conclusions can be regarded as mandatory.

Yet the similarity between Sumerian and the Atlantic creoles goes much further than the mere use of the pronoun as a pluralizer. In Atlantic creoles the use of this pluralizer also indicates definiteness of the noun [PCs, 193], as one should probably expect from the etymology of the construction. Similarly, analysis of the Sumerian examples listed in [SLa] (#16-19, as contrasted with #20 where no pluralizer marks an indefinite plurality of rulers) suggests that pluralization by /-e ne/ involves definiteness (M.-L. Thomsen proposes that unmarked plural personal nouns
Other features of the Sumerian plural function point in the same direction. As in Tok Pisin, even nouns belonging to the person class do not take the plural suffix when the presence of a numeral makes it superfluous (see [SLa, §69] and [Mühlhäuser 1981: 44]). As in Tok Pisin, furthermore, a particular “collective” or “group” plural is formed by reduplication, in particular though not exclusively for non-person nouns ([SLa, §71ff], [Mühlhäuser 1981: 72, 75]). Even the Sumerian pseudo-pluralization by means of ḭ i-a, “the various”, appears to have a parallel in Tok Pisin kainkain, “all kinds of” ([SLa, §75], [Mühlhäuser 1981: 44]).

The Sumerian case system, on the other hand, would seem at first to contradict the creole hypothesis: creoles rarely have grammaticalized case systems, while Sumerian distinguishes the ergative, the absolutive (unmarked), the genitive, the dative, the locative, the comitative, the terminative, the ablative-instrumental, the locative-terminative (“close by”?), and the equative. A number of creoles, however, have developed case suffixes by clitization of either postpositions or serial verbs [PCLan, 40, 55]. At least one of the Sumerian case suffixes can be identified etymologically in this way, viz the comitative / - d a / < d a, “side”. The locative-terminative suffix / - e / cannot be traced etymologically; but since it seems to be used as an imperfective mark on verbs (see [Jacobsen 1988: 216f], cf. below), and also to be used for the ergative, it can be argued to derive from an originally free word. At closer inspection Sumerian thus does not differ from what could be expected in a creole which has developed without interruption by either repidginization or decreolization for some five to eight centuries.

One case should be singled out for separate discussion. In contrast to all other case suffixes, the genitive suffix can be followed by other case markings, and in nested constructions it can be repeated, as in the phrase é-tum-ugal-ak.ak, (“house [to the] child to the king belonging” belonging”, i.e., “the house of the child of the king” – {...} indicates nesting). As pointed out by Jacobsen [1973: 163f], the only sensible explanation of this construction seems to be that the genitive suffix originated as a participle analogous to Tok Pisin bilong. Indeed, if normal Sumerian word order is be understood as collectives [SLa, §67]; the difference between the two positions is not significant).

46 It might prove worthwhile to investigate to which extent Sumerian agrees with the general tendency of Tok Pisin to avoid redundant plural marking.

47 Both functions of localization are of course familiar in many languages – cf. English “a[t]-washing” and “read by me”.

48 In general, the predominantly localist interpretation of the Sumerian cases for which Jacobsen [1965: 87 n.13] (albeit with abstract uses for some of them as “grammatical” or “logical” cases) argues can be seen as evidence for a relatively recent grammaticalization of case. As a rule, when grammaticalized case arises through clitization of adpositions or serial verbs, its starting point is precisely a set of frozen localist metaphors (four instances can be found within this footnote: “of”, “for”, “with”, “through”; “within” is the only preposition which is not used metaphorically).
imposed upon Tok Pisin *papa bilong {papa bilong me}* ("[my father]'s father"), we get *papa {papa me bilong} bilong*, a perfect parallel to the Sumerian nested construction.

One aspect of the treatment of nouns distinguishes Sumerian at least from the way Bickerton [1981: 222ff, 56f, 247f] speaks about creoles: Sumerian has no articles and, apart from what was suggested above concerning pluralization by means of / -e n e /, no other grammaticalized ways to distinguish determined from indetermined nouns. However, it does possess a number of demonstratives, some free and some cliticized [SLa, §133-138]; one possibly demonstrative suffix is / -e /, apparently derived from the locative-terminative suffix. Bickerton ascribes definite articles to the creoles he discusses, pointing out at the same time that the organization of the semantic space for articles differs from that of the European superstrate languages. In many creoles, however, what can be understood as definite articles derives from demonstratives (as in so many other languages), often from localizing demonstratives like French là [PCs, 191]. A closer analysis of Bickerton’s examples shows that the semantic range of his definite articles is precisely that of demonstratives, and that this is just what distinguishes it from the (~definite+generic) articles of English, French and Portuguese. Moreover, according to current interpretations Tok Pisin possesses no definite article although the numeral “one” (*wanpela*) is weakened enough to warrant translation as an indefinite article (cf. [Mühlhäusler 1981: 48 and passim], quotation from Laycock and examples).

**“Adjectives”**

The use of quotes indicates that this category is foreign to Sumerian as a distinct word class (if such are defined by syntax and/or morphology), as it is to most creoles ([SLa, §81, 88]; [Jacobsen 1988: 216 n.62]; [Bickerton 1981: 68]; [PCLan, 51]). What we translate for semantic reasons as adjectives behaves syntactically and morphologically no differently from intransitive stative verbs; this holds for Sumerian and creoles alike, for creoles even in cases where adjectives descend from lexifier adjectives. Concomitantly, neither Sumerian nor creoles make use of a copula to connect a subject with a predicate “adjective”.

As a natural consequence of the subordinate character of the category, the

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49 The possible use of certain “adjectival verbs” (cf. below) with the suffix / -a / as a determining device (suggested by J. Krecher) must be understood as the attribution of determining relative clauses (*u r. s a g kalag - g a*, “the hero that is mighty”) – cf. [SLa, §80]. It can thus not be regarded as a grammaticalization of the determining function.

50 Similarly, the semantic distinction in creoles between different copula functions pointed out by Bickerton [1981: 68] can also be observed in Sumerian (cf. [SLa §214ff, 535ff]).
complex than most ergative splits\textsuperscript{51}.

However, the “system as here described” is characterized as “ideal” by Piotr Michalowski [1980: 91-94], from whom the presentation is borrowed (cf. also [SLa §287ff]. Thus, the two systems become mixed in the imperfective, third person plural, which may reflect historical development. More revealing is perhaps a tendency not to use the person category prefix for patients with imperfective verbs and not to use the non-person prefix for agents with perfective verbs. Since most of the evidence for the use of pronominal elements comes from “Old Babylonian” (i.e., earlier second millennium) literary texts, i.e., from a period where scribes did not respect and thus apparently did not really perceive the distinction personal/non-personal, one might suspect that the split according to aspect was originally rather a split according to animacy. Since literary texts from the 22nd century contain a few pronominal elements, the system as a whole can not be an Old Babylonian scribal invention\textsuperscript{52}.

Analyzing the system and in particular the exceptions to the “ideal” system, Jacobsen [1988: 204-209, 213-216] offers a tentative explanation of how the ergative system may have developed\textsuperscript{53}. As an example he analyses the sentence lú . e é . Ø m u . n . d ú . Ø . He characterizes it as “passive” and translates it as “by the man [lú] the house [é] was built [dú]”, taking the suffix /-e/ on lú as an originally locative-terminative mark (as the etymology of the English translation “by the man” – most languages, as we know, subscribe through their metaphors of agency to a variant of the principle post hoc, ergo propter hoc). The formulation should not make us believe that there is any morphological mark on the verb to distinguish a passive from an active voice, and the crucial point of Jacobsen’s explanation is indeed that the Sumerian verb is used without such distinctions in both one-participant and two-participant constructions\textsuperscript{54}. Because of greater speaker empathy with persons than with animals and things (as demonstrated by the general division personal/non-personal),

\textsuperscript{51} Yet not uniquely complex: Hindi, e.g., in which case marking follows the aspect-governed split of verbal agreement, contains another split governed by animacy: an object suffix used in both aspects but only on animate objects [Anderson 1977: 330f, 333].

\textsuperscript{52} Mamoru Yoshikawa [1977: 84-88] suggests that with a small group of verbs the prefix represents the agent in perfective as well as imperfective, which would imply split along yet a third ( viz semantic) dimension. Even though objections to his stance can be formulated and rival (locativic) interpretations be given (cf. [Jacobsen 1988: 210f n.53]), this particularity is of course another piece of evidence that even though the Old Babylonian scribes may have tinkered with the split between ergative and nominative-accusative in ways dictated by their own grammatical understanding (and by their bent for systematization), they can not have invented it.

\textsuperscript{53} In this connection it is important to notice that several of the languages with aspect-split ergativity mentioned by Michalowski have developed the ergative structure relatively recently – thus Hindi-Urdu and other Indo-Iranian languages, cf. [Anderson 1977].

constructions originally concentrating on the state into which the logical patient (the house) has been brought will have been refocused, with the consequence that an originally locative-terminative “by” has been reinterpreted as an ergative mark on persons.\footnote{A strictly similar process has been traced by Sandra Chung [1977: 5-15] behind the development of ergativity in a number of Polynesian languages, with the only noteworthy difference that the original presence of a marked passive is still reflected in specific verb forms.}

Going beyond Jacobsen one may notice that this explanation probably works differently for perfective and imperfective verbal forms, which implies that ergative splits according to aspect and according to animacy are not fully separate possibilities. In order to see that we shall have to look somewhat closer at the relation between aspect and voice. Genuine passives, indeed, are intimately connected with the perfective in many languages (as illustrated by English “is built”, Latin “constructus est” and Danish “bliver bygget”; cf. also [Kuryłowicz 1964: 56ff]) – so much so indeed that many Indo-European languages have had recourse to reflexive forms in order to develop an imperfective functional passive (Danish “bygges”, Russian “stróit’sja”)\footnote{Reversely, when the originally perfective mediopassive was sliding toward an imperfective middle voice, Sanskrit developed a genuine passive from the perfective participle [Anderson 1977: 332].}. On the semantic or phenomenological level and independently of language family we may observe that a transitive imperfective describes the (acting) state of the agent, while the perfective tells the resulting state of the patient (\textit{viz,} the state into which it has been brought)\footnote{That this state into which the patient is brought is the core of the perfective aspect, and not the fact that the agent has finished acting, is illustrated by the use of constructions “Agent possesses Patient [or, ‘with respect to Agent, Patient is’] in [a participial] State” (“I have read the book” etc.) as perfectives in languages from all over the world (cf. [Anderson 1977: 337f], reporting Benveniste and Vendryes). Cf. also [DeLancey 1981: 647], “perfective aspect requires that viewpoint be with the NP associated with the temporal terminal point, i.e. the patient”}, in agreement with the distribution of the role as grammatical subject in active versus passive.

Anderson [1977: 336], in his explanation of aspect-governed split ergativity, argues from this connection that “when a language loses (as a consequence of other changes, either phonological or of usage) an inflected perfect, it is plausible to suggest that the scope of the original passive may expand to fill the gap”. Reversely, when a language (as Sumerian) possesses no morphological distinction between an active and a passive voice, an equivalent distinction between focus on the state into which the patient is brought and on the action performed by the agent may be obtained by means of an adequate choice of aspect.

It will thus be no accident that the verb of the “passive” sentence serving in Jacobsen’s argument is perfective – we may borrow Bernard Comrie’s formulation [1981: 55]...
113] that “languages will tend to show a bias towards ergative-absolute syntax in resultative constructions”. But the perfective aspect is also the unmarked aspect, which implies that the underlying unmarked voice will have been passive. The occasion for the syntactical reanalysis proposed by Jacobsen may then have been a conflict between empathy and a focus which was too automatically inherent in the unmarked quasi-voice – in parallel to the suggestion made by Chung [1977: 13f] that it may have been preferential use of the passive voice in Proto-Polynesian that called forth reanalysis of the passive in certain Polynesian languages. Once the suffix /-e/ had been reanalyzed in perfective sentences as an agent mark, generalization to all sentences would be an easy and almost natural process.

Creole languages are not morphologically ergative stricto sensu, at least in their beginnings: they cannot be, indeed, as long as they have developed neither grammaticalized case nor verbal agreement. It is not clear (at least not to me) how precisely it is possible to speak about syntactical ergativity. It appears, however, that many features of characteristic creole grammar point to an underlying semantic structure or phenomenology corresponding to that which – according to Jacobsen’s analysis – appears to have existed in Proto-Sumerian:

Like Sumerian, and almost certainly Proto-Sumerian, creole languages in general have no formal differentiation between transitive, intransitive, passive and causative uses of the verb (cf. [Bickerton 1981: 71f], [Markey & Fodale 1983], and [PCLan, 26]

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58 This may appear as a revival of the classical understanding of Sumerian as a “passive” language, a notion which has otherwise been replaced by the concept of ergativity. Revival of the outmoded idea may indeed be called for by the differentiation of syntactical and morphological ergativity and by the observation of the various kinds of splitting; but it shall be observed that Proto-Sumerian and not Sumerian is the language where we could speak of an unmarked passive voice: the very development of morphological ergativity makes this description obsolete.

59 Cf. [Silverstein 1971], according to whom the surface structure of Chinook Jargon can equally well correspond to an English speaker's nominative/accusative deep structure as to a Chinook speaker's ergative deep structure (we may leave aside the question to which extent Chinook is really syntactically ergative).

60 Since creoles possess neither grammaticalized passive nor grammaticalized antipassive, we cannot fall back on the convenient test applied by Dixon (1977) to demonstrate the syntactical ergativity of the Dyirbal language. One point does suggest a strain of syntactical ergativity: The first tense marking developed by (at least typical) creoles appears to be the “anterior” – “very roughly, past-before-past for action verbs and past for stative verbs” in Bickerton’s words [1981: 58]). Evidently, this only makes conceptually coherent sense as one tense if we reinterpret “past-before-past for action verbs” as “past resulting state of the patient”, i.e., if it is the transitive patient and not the agent that is categorized with the intransitive subject.

61 As stated by Bickerton, “Passive constructions in creoles are extremely rare, and those that exist (the wordu and ser passives in P[apiamentu], [...] the gay passive in M[auritian] C[reole], [...] and the get passive in G[uyanese] C[reole]) are either marginal to the language or relatively recent superstrate borrowings, or both”.

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But in cases where only one noun phrase occurs in a sentence with a transitive verb, typical creoles will interpret it as the patient, not the agent [Bickerton 1981: 72]; this is all the more striking since all the examples mentioned by Bickerton have the patient in the position where the corresponding two-participant-constructions have the agent. The “focus by default”, the participant that has to be told, is thus the patient: in other words, the minimal sentence describing an action is a “truncated passive”.

Further evidence for the focal role of the patient is offered by an observation made by Bickerton concerning the incipient use of relative clauses in Hawaii English Creole (see [PCLan, 241]): These are much more likely to be patient- than agent-focused (“A, whom B hit” and “A, who hit B”, respectively); the same distribution was found by Suzanne Romaine in children’s speech until the age of six to eight.

At the same time, and as in Sumerian, the unmarked aspect of typical creoles is the perfective. In agreement with what was said above, even this points to the patient as the “focus by default”. On the other hand, grammaticalized aspect is developed at a very early stage as it will have been in Proto-Sumerian (cf. below). The original structure from which Sumerian split ergativity appears to have evolved and which seems to have conditioned it, including the need to indicate focus on agent or patient by other means than voice, is thus identical with the one found generally in creoles. We might say that creole languages, before developing grammaticalized case and agreement, are neither nominative/accusative nor ergative but located at an indefinite point of Dixon’s continuum, if anything then proto-split-ergative if they use aspect as substitute voice – and also split according to animacy inasmuch as animacy co-determines the probability of focus. Precisely the same will have been the case in Proto-Sumerian, if we accept Jacobsen’s analysis.

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62 “In contrast to a general lack of ‘full’ passives, creoles frequently attest rampant lexical diathesis, or notional passivization; e.g. Engl. dial. this steak eats good. […] Lack of full passives is also diagnostic of pidgins, even those that are developmentally refined, e.g. Tok Pisin, which, while it lacks full passives, attests both truncated passives and lexical diathesis” (p. 69).

By “lexical diathesis”, Markey and Fodale thus refer to the construction discussed in note 54, for the distinct class of words where this construction is permissible. As long as no formal marking on the verb distinguishes active from passive use, “truncated passives” (passive constructions where no agent is mentioned) appear not to be meaningfully separable from lexical diathesis, only to constitute a widening of the class of verbs for which the construction is permissible.

63 While only a twisted reading of her source enables Romaine to claim that deaf children appear to “spontaneously create ergative case systems in sign language, which do not reflect the case structure of English”, it is still suggestive that deaf children brought up by parents without knowledge of existing sign languages had a production-probability pattern for sentences mentioning only patient versus those mentioning agent and transitive verb and those indicating intransitive subject and verb corresponding to “the structural case-marking pattern of ergative languages (the first and third being high and approximately equal, the second low) and quite different from that of their mothers [Goldin-Meadow & Mylander 1983: 372 and n. 6].
The verb

In [1975], Burkhart Kienast observed that the study of Sumerian grammar was dominated by investigations of the verb to such a degree that other domains were ignored; a look into the literature which has been published since then demonstrates that the supremacy of verb studies has not been seriously challenged in the meantime.

This situation has its sound reasons – sounder indeed than intimated by Kienast’s complaint. Word composition, the topic which he investigated, cannot be properly understood unless the verb character of supposed “adjectives” is recognized and the participial function in general is understood; ergativity and its emergence, as it will be obvious from the preceding section, is mostly to be investigated through its reflections in the verbal chain; etc. The categories revealed through certain elements of the verbal chain are, on the other hand, so different from both Akkadian and modern European grammatical categories and often so sparsely written in third millennium texts that their meaning stays opaque.

In creole studies, on the other hand, one of the hot disputes concerns Bickerton’s claim that all “true” creoles share a common tense-mode-aspect system carried by preverbal morphemes. Seen from the Sumerological as well as the creolist perspective, the verb is thus both pivotal and intricate.

Sumerian verbs are found (if we disregard phenomena like the participle mentioned above) within verbal chains, at the core of which a verbal stem is found. Of these the verb has four, most important of which are those characterized as hamtu and marû in Babylonian grammatical lists, “quick” and “fat”/“leisurely”, corresponding to the punctual and progressive Akkadian aspects into which the two stems were translated ([SLa, §231ff]; cf. [Jacobsen 1988: 173ff]). For convenience, the Sumerian stems can be described as “perfective” and “imperfective” (see, e.g., [SLa §238]): the precise shade of each aspect has not been determined, probably for the reason that it varies as much as such aspects in other languages.

A few verbs appear to have different roots for the two stems; we may assume that this has happened by merger of two different verbs (corresponding to the process that made “went” the past tense of “go” in English), which makes it irrelevant to the present discussion. A number of verbs have an imperfective stem which is formed by partial reduplication (or, rarely, some other expansion) of the root, which on its part is identical with the perfective stem. Most verbs, however, form the imperfective stem by adding /-e/ to the root, which even in this case coincides with the perfective stem.

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64 This thesis, which is important in his [1981], looms even larger in his inciting popularization from [1983].

65 Often, this suffix is invisible in writing because of phonetic contractions, cf. [SLa §233]. Jacobsen [1988: 182-184] lists a number of textual examples which suggest that also the partially reduplicated imperfective stems may have carried a suffix /-e/, even though this is mostly
suffix is probably identical with the locative-terminative morpheme, cf. the parallel “a[t]-washing” cited in note 47.

A third stem can be formed by complete reduplication of the root (even for this, a few verbs use a different root). While the imperfective partial reduplication is a frozen form, this “free” reduplication is productive [Edzard 1971: I, 231f]. It is mainly used to indicate the plural of the intransitive subject or the patient66, but possibly also with iterative or intensive aspectual implications (ibid.; [SLa §248]). All functions are evidently somehow iconic.

The fourth stem is formed by addition of / -e d / to one of the other stems67. It is mostly read as a future with modal (prospective or similar) implications [SLa, §255], while Jacobsen speaks about a “pre-actional aspect” with similar modal implications.

In finite verbal forms (the “verbal chain”), these stems are preceded by prefixes and followed by suffixes in a fixed order. The total system is (see [SLa, § 274]; P stands for prefix, S for suffix)

\[ \text{Modal P—Conjugation P—Case P—Pronominal P—STEM—Pronominal S} \]

This can be followed by a subordination suffix / -a / (cf. below on relativization) and by further case postpositions, which do not concern us here.

The pronominal prefixes and suffixes were discussed above in relation with the question of ergativity; the case prefixes may point back to preceding nominal chains in the dative, comitative, terminative, ablative, and locative cases (serving to specify focus), but they may also serve to specify verbal semantics [SLa §426b; Gragg 1973: 94]. “In principle the case elements have the same shape as the corresponding postpositions” [SLa, § 423], even though this agreement is blurred in some of the cases by amalgamation with a pronominal reference. The function of the case prefixes is fairly well understood.

This is unfortunately more than can be said about the “conjugation” prefixes. The occurrence of at least one of the latter is compulsory, and indeed what characterizes the finite verb68. The prefix / al- / (which excludes the presence of further prefixes) appears to indicate a stative [SLa, §356]; it is the most common conjugation prefix in the oldest texts [Jacobsen 1988a: 126]. The contrast between the conjugation prefixes

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66 Similarly, Peter Mühlhäusler [1981: 57] mentions that in “Malabang creole Tok Pisin [...] a kind of agreement between plural noun subjects and reduplicated verbs is developing”.

67 Yoshikawa has suggested an alternative analysis of the form, imperfective / -e / followed by / -d /; cf. however [SLa, § 254], and [Jacobsen 1988: 187f].

68 The opaque term “conjugation prefix” thus simply indicates that conjugation through modal, case and pronominal elements is impossible if no prefix of this class is present.
and may be that between backgrounding and foregrounding. Other conjugation prefixes may be used when the agent of an action verb is not mentioned [SLa §318f], or have the meaning “also” [SLa, § 326]; the prefixes /ba-/ and /bi-/ may be composed from the non-personal pronominal element /b-/ followed by case elements /-a/ and /-i/ (</-e/ ) (locative and locative-terminative, respectively), and seem to be chosen in agreement with the semantic of the verb [SLa, §349-351].

Most modal prefixes are somewhat better understood. They are characterized in [SLa, §359-421] as “negative”, “vetitive and negative affirmative”, “prohibitive and affirmative” (possibly two etymologically different prefixes), “cohortative”, “precative and affirmative”, “prospective”, and “at least in some cases, [...] a hypothetical wish” (a few are uninterpreted).

Yoshikawa [1989] has shown that a number of these modal prefixes occur as free adverbs (etc.) in early texts. We may thus assume that their integration into the verbal chain is a relatively recent phenomenon, taking place perhaps in the earlier third millennium. Other evidence pointing in the same direction can be listed.

Firstly there is the appearance of vowel harmony in the prefix chain around the mid-third millennium (cf. above, the section “Phonology”). Phonological change is often a consequence of other linguistic changes, for which a recent transformation of prepositive into prefixed elements might be a plausible candidate. Secondly there is the tendency in the oldest texts to use only the simple conjugation prefix /a l-/ (to the exclusion of modal, case and pronominal prefixes). Thirdly, the recognizable use of the case postpositions as case elements in the prefix chain points to an existence of these as free morphemes in a not too distant past.

Fourthly, and most strikingly, a curious structure of the aspect-modality system can be perceived. The stem itself, as we remember, might indicate aspect, and (with suffixed /-e d/) modality. But the “modal” prefixes are certainly also modal, and at least the conjugation prefix /a l-/ appears to be aspectual. Aspect and modality

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69 This was suggested by H. L. J. Vanstiphout [1985], and in a less explicit variant involving also the prefix /ba-/ by Gragg [1973: 93f]. Yoshikawa [1979] has proposed that the difference be one of “topicality”, viz the status difference between agent, patient and beneficiary of the action, of the localities involved, or of the the event as a whole; similarly, Jacobsen ([1988: 214 n.57] refers to greater and smaller speaker empathy with the goal or the occurrence of the verb, cf. already [Jacobsen 1965: 76, 79f]). In so far as high empathy or status tends to produce foregrounding rather than backgrounding, the three explanations point in the same direction (empathy with the “occurrence of the verb” I understand as close to “foregrounding of the clause”); instances of parallel sentences with the same subject and patient and changing conjugation prefix listed by Vanstiphout makes (his somewhat narrowing reading of) the “topicality theory run into fairly heavy weather”, as he ironically comments (p. 3).

70 Jacobsen [1965: 75-84] goes much further, interpreting the whole group as indicating generalized aspect and ascribing to several of the members beyond /a l- / an aspectual function stricto sensu.
are thus indicated twice, once within the stem and once in the preface chain\textsuperscript{71}. It is not credible that the two systems should have developed simultaneously, nor that the prefix system should be earlier.

To this may be added evidence for temporal structure in the development of the stem system itself. The co-occurrence of a frozen partial reduplication and a productive full reduplication with a different meaning indicates that the former must have developed (and have become frozen) before the second came into use. But in writing the partial reduplications often appear as if they were full, in contrast to the phonetic assimilation of prefix chain elements to each other. “Semantically heavy” objects like verb roots are of course more resistant to phonetic amalgamation than semantically weak entities, in particular in a massively logographic script. Writing is only relevant, however, if phonetic amalgamation had not taken place when the written tradition stabilized. All in all, the cliticized mode-aspect-scheme of the prefix chain (and hence the structured prefix chain itself) is thus not likely to antedate the third millennium; perhaps it does not antedate the incipient writing of grammatical elements significantly.

How can this be correlated with creole language structures? Firstly some differences must be taken note of.

Bickerton and a number of other creolists speak of a tense-mode-aspect system. Tense, it seems, is not grammaticalized at all in Sumerian (earlier grammars, it is true, interpret \textit{hamtu} and \textit{marû} as past and present tense, respectively, but the aspect character of the two should now be established beyond doubt). Papiamentu and several other creoles, however, do not possess the category “anterior” (cf. above) claimed by Bickerton [1981: 58] to be a universal creole marked tense. Whatever the reason (ibid., p. 85, cf. [PCLan, 285]), heavy superstrate influence in the pidginization phase or decreolization, it is clear that Bickerton’s tense marking may be common and may be the ideal type, but that it is no universal in (post-)creoles – at best perhaps a universal in Bickertonian “true” creoles (a class which, however, may be too restricted to allow discrimination between tendencies and absolute universals). As argued above, note 21, the Uruk creole has probably not belonged to the class, and what may be universals in the “true” category may only have been present as more or less strong tendencies which could be neutralized by counteracting influences.

The values of the unmarked Sumerian aspect and mode correspond precisely to the creole standard as set forth by Bickerton and others. Yet Bickerton also speaks of only one dichotomy along the aspecual and one along the modal dimension. The former appears to coincide with the Sumerian distinction between the perfective (unmarked)

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\textsuperscript{71} Since the two systems are organized along different dimensions, the prefix markings cannot be understood as agreement reflections of the stem in the way the prefix case elements reflect or point back to dimensional cases in the nominal part of the sentence (which would anyhow be most unusual).
and the imperfective (marked), while marking of mode indicates “[+irrealis] (which includes futures and conditionals)” [1981: 58], corresponding nicely to the Sumerian / -e d / -stem. He finally claims that tense, mode, and aspect are marked in true creoles by preverbal free morphemes (in this order).

In Sumerian, what looks like originally free aspect- and mode-indicating morphemes occurring after the verb and in reverse order have been cliticized. Moreover, if it is true that the free reduplication of the root may be used to indicate aspect, then the Sumerian aspect system is more complex than what is found in ideal type creole, even if we disregard aspect-related conjugation prefixes.

Once again, if the ideal type were fully representative, Sumerian post-root case- and mode-indication and aspectual complexity would represent problems. Clitization would not, nor the reverse ordering of the indicators, since precisely this reversal preserves their relative proximity to the verbal root72.

However, the representativeness of the ideal type is limited; certain pertinent questions, furthermore, have been asked only rarely – thus, e.g., questions concerning grammaticalized back-/foregrounding and the extent to which this dichotomy might call for partial reinterpretation of presumed tense-, mode- and aspect markings73. Thus Kriol (an English-based creole from Western Australia) splits the markings of tense, modality and aspect between pre- and suffixes ([PCLan, 287], reporting J. Hudson). So does Sénégal Kriôl within a system which is also deviant in other respects [Muysken 1981a: 196]. In Guyanese and Jamaican Creole, on the other hand, K. Gibson & C. Levy (manuscript reported in [PCLan, 271]) have revealed a double aspectual opposition, perfective/imperfective and punctual/non-punctual (progressive, habitual, durative); according to Pieter Muysken [1981a: 194], the same situation prevails in Sao Tomense74. This double opposition seems close to the Sumerian system; as in Sumerian, moreover, the perfective/imperfective opposition is marked more centrally than the punctual/non-

72 This order of proximity, it should be observed, is no specific creole feature but apparently of very general validity – cf. [PCLan, 267] reporting work done by J. Bybee.

73 Cf. Givón as reported in [PCLan, 265]. In general, of course, studies of creole as well as Sumerian grammar tend to look for categories which are grammaticalized in familiar languages, and to try to account for apparently anomalous phenomena through such categories. Thus, Sumerian ergativity was understood until a few decades ago as a “stative” or “passive” character of the language, and the aspectual interpretation of the hamtu/marû-dichotomy only replaced the tense interpretation recently; and thus, on the creolist side, Suzanne Romaine [PCLan, 242], in an otherwise thoughtful treatment of the topic, only recognizes full syntactization of relative clauses when zero marker has come to be used exclusively in object position and the subject copy pronoun has been deleted, i.e., when they follow the particulars of the English pattern. English speakers may agree, but French and in particular Germans (“Du, der du ein Führer bist ...” – Brecht, “Lob des Zweifels”) will probably wonder.

74 However, he gives no source for his data, and since these are strongly objected to by Bickerton [1981:75-77], this might better be disregarded.
punctual, and thus probably first grammaticalized. Also Isle de France Creole seems
to exhibit this double aspeuctual opposition, and perfectivity seems to be an older
distinction than punctuality ([PCLan, 284], reporting Corne). In general, many “not-
quite-true” creoles exhibit systems which are significantly more complex than surmised
by Bickerton for the “true” variety, even though only reduction and clitization of
presently free adverbs (of which many make use, some within the sequence of TMA-
prefixes) would make them approach the intricacy of the Sumerian verbal chain.

While the Sumerian post-root indications of aspect and mode might represent
anomalies for the identification of Sumerian as a post-creole\textsuperscript{75}, it should be observed
that the preverb position of the “modal” negation prefix is the common creole pattern
and possibly a pidgin universal [PCLan, 58, 228]. Though it is rare in high-style
Sumerian there are also indications (in proverbs and dialogues) that “negative spread”,
i.e., negation of both noun phrase and verb, has been present in colloquial Sumerian
(see examples in [Yoshikawa 1989: 297]) as commonly in creoles.

Case agreement systems like that of the Sumerian verbal chain are not to be found
in young pidgins and creoles. In stabilized pidgins and mature creoles, on the other
hand, they may turn up on a par with clitization and prefixing (cf. [PCLan, 39, 133]),
as part of a general grammaticalization process; the redundancy which they bring about
is analogous to negative spread, and probably a consequence of the needs arising when
“a language acquires native speakers” [Sankoff & Laberge 1974]. The existence of a
thing like the prefix chain should thus be fully compatible with the identification of
Sumerian as a post-creole. Assimilation of former free morphemes is of course not a
process restricted to creoles and post-creoles but known from all languages; the rapidity
with which the formation of this complex structure appears to have occurred according
to the above considerations, on the other hand, may be best compatible with the
tendency toward increased development pace that seems to characterize pidgins and
creoles (cf. [PCLan, 95], and for striking examples from Tok Pisin, [Woolford 1981: 129]
and [Sankoff & Laberge 1974, passim]) – a tendency which actually characterizes them
for good reasons, since “new” languages, \textit{qua} emergent dynamic structures, are likely
to be born less stable than average.

\textsuperscript{75} Yet it might be worth investigating whether the above-mentioned verb-final stabilized pidgins
use markers of aspect and modality in fixed positions, and if so, whether they are found before
or after the verbal root. The position of the Sumerian markers might indeed be a consequence
of the verb-final sentence structure.
Minor features

Remains a number of minor issues, where Sumerian grammatical characteristics may be compared to characteristics of creoles in general or to specific creoles.

One such issue is the formation of relative clauses. These are formed by means of a “subordination” suffix / -a /, which may be identical with the locative suffix, in which case it would correspond to similar uses in a number of creoles (and other languages, as a matter of fact): postpositive *ia* in Tok Pisin [PCLan, 246f, ex. 41 and 42] and *la* in a number of French-based creoles [PCLan, 249].

Indefinite nominal relativizers (of the type “relative pronouns”) are optional in Sumerian and probably a late development: they are recognizable as *lú*, “man”, and *nig*, “thing” [SLa, §486]; they must thus have been identifiable in the moment they began being written (if not, homophones might have been used). Even this secondary development of relativizers caused by a pull toward functional flexibility appears to fit what goes on in the emergence and maturation of creoles (see [PCLan, 241-251], cf. [Bickerton 1981: 62f]).

No creole, according to Bickerton ([1981: 70]; cf. [PCLan, 51f]), “shows any difference in syntactic structure between questions and statements”. Nor does Sumerian, as far as I have been able to trace. Creole interrogatives tend to be bimorphic, corresponding to superstrate compositions like “which side” [“where”], “what thing” [“what”], “what makes” [“why”] ([Bickerton 1981: 70f], borrowed and expanded in [PCLan, 52f]). The corresponding terms in Sumerian are formed by means of an interrogative stem / me / followed by case postpositions or by the enclitic copula (*-ám, “... is it”). This may look somewhat different from the creole system, but in view of the probable origin of the case postpositions as independent words (following more or less closely the pattern of the comitative / -da / < da, “side”) the two systems are probably identical.

A quite recent suggestion, as far as I am able to tell, and not yet fully accepted, is that Sumerian may distinguish inclusive and exclusive first person plural [Jacobsen 1988: 195]. Even in creole studies, this distinction tends to be overlooked or forgotten when it is present. Thus we are told that “all creoles have just three persons and two numbers” [PCLan, 61] – but in other places the same book refers (p. 97, 131) to the distinction between inclusive and exclusive first person singular in Tok Pisin (“yumi” and “mipela”, respectively) and in other Melanesian pidgins and Australian creoles.

This feature in Melanesian and Australian languages may well reflect substrate influence – it is present in many Oceanic and Australian languages ([PCLan, 131]; [Dixon 1980: 331-355]), and it is demonstrably difficult to acquire for those learners of Tok Pisin who do not have it in their first language [Mühlhäusler 1981: 42]. But the tendency

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76 In particular situations the interrogative *a.na* “what” may be used in the sense of “whatever” [SLa, § 117].
to overlook the unfamiliar structure should make us suspect that it may have gone unmentioned and perhaps unnoticed in other cases where it was present. Its plausible presence in Sumerian, at least, is no argument against a creole origin – nor, to be sure, in favour of it.

The “pre-Sumerian substrate”

An established theme in discussions of the “Sumerian problem” is the question of the “pre-Sumerian substrate”, the remnants of a language supposedly spoken by those who lived in Southern Mesopotamia before the Sumerian immigration or conquest\(^\text{77}\). Even though “substrate” has a somewhat different meaning in creole linguistics, Domenico Silvestri [personal communication] is probably right that the question should not be eschewed in the present context.

The fundamental observation is that no Sumerian etymology for the names of the oldest cities can be constructed, and that a large number of words of cultural importance (tools, products and professions) seem not to fit the normal phonology of Sumerian ([Landsberger 1944: 433]; [Salonen 1968]). They are bisyllabic, which is rare for Sumerian roots, and often contain a consonantal cluster.

Given the late date of our sources for the pronunciations of the signs and terms in question it is difficult to assess the significance of the seeming phonological anomalies\(^\text{78}\). The clustering of these in two specific areas, however, remains puzzling. On the other hand, every experience from the formation of pidgin and creole languages tells that both superstrate and substrate contributions to the lexicon are worn down to phonological normality. This would not provide inherited place names with a transparent etymology, it is true, but it would have deprived the “culture words” of their recognizable oddity (cf. Tok Pisin \textit{gavamen} < “government”). The idea that the seemingly anomalous terms are inherited from a pre-Sumerian substrate is thus as unsatisfactory as the idea that they represent phonologically intact sub- or superstrate remnants in a post-Creole.

\(^{77}\) The first systematic approach to the theme was undertaken by Ephraim A. Speiser [1930: 38-58], who believed by then to be able to identify not only the pre-Sumerian language (Elamite) but also the dialect which the former Elamite speakers developed when they took over the Sumerian tongue. In [Speiser 1951], when he delineates the history of the topic, these presumed results go unmentioned, perhaps because he counts them under those “details” which should be submitted to “very extensive modifications” (p. 96) if the original argument were to be republished.

\(^{78}\) To some extent we may also be betrayed by the ease by which most composite expressions are accessible to analysis, and thus believe that every bisyllabic for which \textit{we} are unable to construct a convincing etymology (or where we judge a composite writing to be an erroneous folk-etymology) is by necessity anomalous. This might eliminate part of Salonen’s extensive material.
A possible explanation of their presence (assumed that there is anything to explain) is suggested by the semantic involved. Names of geographical places are certainly bound to the area. Names of tools, products and professions which (according to the archaeological evidence or to anthropological reconstruction) must have existed already during the late Neolithic or the Chalcolithic, and insofar they may have come from anywhere in the region. But the tools and professions in question will have been dealt with in the proto-literate administrative texts – and many of puzzling terms are indeed possible values of single, non-composite cuneiform signs, quite a few of which can be followed back to their proto-literate form.

If Sumerian is descended from a mid-fourth-millennium South Mesopotamian Creole, as here supposed, names bound to the area are likely to have been superstrate, not substrate words. Tools etc. in general use cannot be ascribed as automatically to the superstrate or to the substrates, but the representation of at least the concepts corresponding to a significant part of the terms discussed by Salonen as simple signs strongly suggests that these terms will have been used by the superstrate speakers during the proto-literate period79. They may then have been adopted into the creole during the linguistic change of guard in the administration (about whose duration or political circumstances we are happily ignorant, but which was at least smooth enough to allow survival not only of the script but also of the lexical lists used for teaching it).

That precisely terms used in the administration should be borrowed at this moment is to be expected: we may think of the need for Tok Pisin either to adopt English loanwords or to invent new standardized circumlocutions when it was to be used in Parliament as the main tool for political discourse80. Even though they will probably have belonged to the lexifier language they may, qua loanwords in an already structured language, have conserved phonological features which had disappeared from those

79 In itself this does not preclude that some or all of them can have been loanwords in the superstrate; the relative phonological homogeneity of Salonen’s material, however, suggests that they will have been present in a single language long enough to have been worn down phonologically: according to Salonen, the words corresponding to what we know about late Neolithic technology have the form (C)VC(C)+-ar; those which point toward the technological innovations of the chalcolithic are formed (C)VC(C)+-ab/-ib/-ub/-ag/-ig/-ug/-al/-il/-ul/-an/-in/-im/-un.

80 “The simultaneous translation into Neo-Melanesian of as complex a document as the annual budget is such a difficult matter as almost to defy the best attempts at intelligibility of the most conscientious interpreters” [Wolfers 1971: 418]. Translating “majority rule” into a circumlocution meaning “supporting the opinion of many people” is rightly characterized as “inadequate for the task” [ibid., 416] – viz as long as the circumlocution has not yet been standardized and the literal meaning forgotten as in the case of the English expression. Resort to borrowing will easily seem more satisfactory.
lexical items which entered from the superstrate and the substrates during pidginization. While, as already stated, no general decreolization can be expected to have taken place in Sumerian, precisely this constituent of the process is likely to have occurred when the creole rose to social prominence.

These reflections – provided, again, that the presumed anomalies are indeed anomalous – may be of some consequence, if not for the “reading” of the protoliterate texts – as already stated, these are structured so as to render administrative procedures and not spoken language – then at least for the words the inventors of writing would put on the single signs. Indeed, if our presumed superstrate words have conserved a non-Sumerian phonology because they were sheltered by their use in writing, these values must have been used (not necessarily to the exclusion of other values) as “translations of” (i.e., words put on) the signs – which may explain that a number of them are used as sign names in later times. Even though other considerations may have been present in the selection of such names (phonological distinctiveness, avoidance of homophones), it is at least a possibility which should be pondered that many of the sign-names are in fact connected to the early interpretations of the signs.

81 Evidently, the process might lead to the emergence of pairs of related forms, one in “pidgin” and the other in “superstrate” pronunciation. Since pidgins may use words in a sense which differs from that of the etymological origin, the two members of such a doublet need not have carried the same meaning – cf. Tok Pisin wanpela (<“one fellow” but meaning one) and long (a preposition of wide use, not specifically along, and no adjective). Whether this has anything to do with certain ambiguities of the reading of some signs (and whether the phenomenon can at all be expected to be certifiable in view of the phonetic imprecision of the script) I am unable to decide.

82 Ignace J. Gelb (in a paper whose several problematic features are not adequately discussed in the present context) points to a parallel phenomenon [1960: 262f]: the existence of “entries in the Mesopotamian lexical texts […] with known syllabic values […] but with no corresponding logographic values”. He concludes that “such writings with purely phonetic values reproduce originally non-Sumerian words, which were perpetuated in the Sumerian writing, but not in the Sumerian language”.

83 This is certainly a naive hypothesis – but a hypothesis is not necessarily wrong because it corresponds to the simplest possibility. As Jacobsen [1988a: 123] quotes Ogden Nash: “O, Things are frequently what they seem/ And this is Wisdom’s crown:/ Only the game fish swim upstream./ But the sensible fish swim down.”
V. CONCLUSIONS?

It remains as true as in chapter I that “every creolist’s analysis can be directly contradicted by that creolist’s own texts and citations”, and that “die sumerologische Forschung bisher nicht einmal in den grundsätzlichen Fragen der Grammatik zu einer einheitlichen Auffassung gekommen ist”. Even though I have tried to base my discussion on features which were acceptably transparent, much of what has been said in the meantime has depended on the choice of one of several existing positions on the creolist, the Sumerologist, or both sides; in such cases, whatever parallels between Sumerian and creole languages that may seem to have materialized can never be more than plausible, perhaps only possible parallels.

To this banal difficulty comes another, hardly less trivial: No creole feature is solely a creole or pidgin-creole feature. That “adjectives” behave syntactically and morphologically as stative verbs in classical Semitic no less than in creole languages [von Soden 1952: 53] is but one example beyond those already pointed at. Even irrefutable proof that Sumerian share essential features with typical creole grammar would only count as circumstantial evidence in favour of, and thus only imply increasing probability of the conjecture that Sumerian is a post-creole – this in a much more radical sense than the equally cliché observation that no scientific proof can be absolute. On the other hand, even blatant disagreements concerning one or the other feature would only count as circumstantial counter-evidence.

On the whole, however, the conjecture seems to me to have received so much corroboration and to have encountered so few definite anomalies that it is too early to reject it. An original Uruk creole may well have swallowed up its original superstrate and have developed into the Sumerian of the third millennium. On the other hand, many details of the comparison have supported the assumption (originally formulated on anthropological grounds) that an Uruk creole must have developed from a stabilized pidgin. Appurtenance to the rare species of Bickertonian “true creoles” can be fairly safely dismissed.

Any step beyond non-rejection requires that the objections raised by Thorkild Jacobsen and Dietz Otto Edzard be discussed.

As formulated by Jacobsen [personal communication],

Pidgin and Creole are languages with simple structure. Sumerian has an unusually complex structure. It has very little “syntax” proper, operates with nounphrases that begin with free elements and end with bound ones, i.e. with morphology. Such
syntax as we have shows a highly differentiated case system. The verb is weighted down with innumerable conditioning elements (see [reference to [Jacobsen 1965] – JH]) so far from being a simple practical language we have a most cumbersome one in which the speaker must have the full surface structure clearly realized before he opens his mouth.

That “the speaker must have the full surface structure clearly realized before he opens his mouth” reminds at least the present author strikingly of academic German, which raises the question whether we are allowed to regard even the written literary Sumerian of the later third millennium (where the “innumerable conditioning elements” begin to turn up in writing) as a particular high style. That (e.g.) the case elements of the prefix chain are optional and may serve to specify semantics and focus suggests that this is so; Yoshikawa’s observation of negative spread in genres reflecting spoken language – a phenomenon which is otherwise absent from our sources for the language – points in the same direction.

The parallel to German has two implications. The high academic German style does not invent features which are totally absent from less high styles; but while a feature like the clause-final position of infinite verbal forms (to take one example) is certainly present as a general tendency in the language it is no less obvious that this general tendency was no absolute rule before the schoolmasters of the late Renaissance had enforced it – in 1520, Albrecht Dürer [ed. Ullmann 1978: 62] would still write that “Auch bin ich gewesen in der reichen Abtei zu St. Michael”. Similarly, even if literary Sumerian is a particular and somehow artificial style using more of the elements that weight down the verb and using them more systematically than lower styles it is not likely that these are a pure scribal invention: even in later Old Babylonian Sumerian, certainly more at the mercy of the scribes, only the grammatical lists and – with one single noteworthy exception meant to serve internal school purposes – not the literary creations are suspected to invent non-existing forms for the sake of completeness [Reiner 1990: 98f]. The assumption of stylistic artificiality thus does not fully eliminate the problem raised by Jacobsen, but it does reduce it. The verbal particle system described by Muysken [1981a: 195] in Seychellois Creole (certainly younger than a post-creole Sumerian when grammatical elements started to be written) is not significantly simpler than (though different from) what could be a Sumerian low style: In total six consecutive places (number four of which is reserved for adverbs), in which it is, admittedly, “rare” to find four or more to be used at a time. Given the pace of grammaticalization and reanalysis in stabilizing pidgins and creoles, and in view of the evidence produced by Jacobsen and Yoshikawa for a process where free particles were changed into bound morphemes not very long before the incipient writing of grammatical elements, the morphological and syntactical structure of Sumerian seems not to present any serious difficulty to the post-creole hypothesis.

A different problem is raised by Edzard [personal communication] in an alternative
interpretation of the plurilingual situation in the area, *viz* as a *Sprachbund*, “mit dem Sumerischen *zunächst* als dem stärkeren und daher gebenden Teilnehmer”. Some of the features which characterize creoles at large (e.g., phonological levelling and reduction of morphological complexity) may indeed also result from the less radical process of linguistic interaction within the same geographical area. Whatever the origin of Sumerian it is also plausible that its interaction with Akkadian is best described under the *Sprachbund* heading: As it has happened in the Amharic-Kushitic *Sprachbund* to Amharic [Comrie 1981: 201], Akkadian adopted the verb final clause structure of the partner; that it did not also shift to prepositive adjectives as expected in verb-final languages is probably to be connected with the location of the (verbal and thus postpositive) adjective in Sumerian. Many of the phonological modifications of Akkadian may also be ascribed to a *Sprachbund*.

However, the changes affecting *Akkadian* are not as radical as some of those which can be observed in the Hindi-Tamil language area, e.g. the convergence of Urdu, Marathi and Kannada in a village on the Indo-Aryan/Dravidian border as described by J. J. Gumperz and R. Wilson [1971], where the three languages have developed identical phonologies and isomorphic grammars while preserving largely distinct vocabularies, thus making morpheme-for-morpheme translation easy. This example is extreme, but other phenomena from the area are also striking – thus the development of the numerals, where interaction has produced in most languages individual forms of all numerals below one hundred which are opaque to everyday etymological comprehension (Hermann Berger, *in* [Gvozdanović 1992: 243-287]). Even though it was phonologically brought nearer to Sumerian, Akkadian did not adopt Sumerian phonology completely; it certainly did not converge in grammatical structure in general (*vide* the difficulties of Akkadian scribes to render certain Sumerian categories), and its single lexemes were not changed independently of each other in a way which (e.g.) would mask the common derivation of *mehrum, šutamhurum, mithārīš* and *mahārum* from the common verbal root *MHR*, as it has happened in many dialects of modern spoken Arabic.

The many features shared by *Sumerian* and creoles at large, on the other hand, suggest that the former as we know it had recently gone through an even stronger phase of destabilization than anything which has hit the participants in the Indo-Aryan/Dravidian *Bund* during the latest millennium.\(^4\) What can be said about the late prehistory of Sumerian also points to a stage of (rather rapidly changing and thus

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\(^4\) Further back, it can be argued, a language like Marathi may be based on a pidgin with a Dravidian substrate and a Prakrit superstrate (see [Southworth 1971]); but the language as it actually presents itself will then be the outcome of a prolonged process of decreolization.

According to Bender [1987: 38-40], even the interaction of Amharic with Kushitic languages may have been mediated (in part?) by a Pidgin-Amharic carried by military slaves recruited from subject populations.
fairly unstable) analyticity, and thus to a more radical wiping-out of morphology than what characterizes the Balkan Bund (merger of the genitive and dative cases, postpositive article, and loss of the infinitive being the essential shared features according to [Comrie 1981: 198f]). All in all I would therefore tend to say that the presence of a Sprachbund, while obvious through its impact on Akkadian, is not the explanation of the particular character of early Sumerian.

This may be as far as we can penetrate for the moment. Direct proof or rejection of the post-creole thesis is not to be expected on the basis of the current dissenting understanding of Sumerian grammar, and thus not to be looked for too intensely at present. More appropriate, so it seems to me, would be to use existing knowledge of typical creole grammatical structures as a guide providing possible models or cues for the interpretation of Sumerian, in particular as concerns its development patterns and its early structure.

In so far as the conjecture is corroborated by internal linguistic analysis it may also support that interpretation of Uruk IV society which was advanced in chapter III, as well as the suggestion that superstrate speakers’ observation of the pidgin may have provided them with crucial inspiration for the invention of writing not as a rendition of “real language” but as a mapping of semantic essentials. Even this might be worth pursuing, I believe – maybe also the use of sign names belonging to the assumed “pre-Sumerian substrate”

For creole studies, reversely, the possible identification of Sumerian as a post-creole might suggest that creole languages be scrutinized for features which are conspicuous in Sumerian and which have tended to be neglected. Sumerian might be important as a creole which does not have a European superstrate, and as an instance of a post-creole which has developed (and developed for around a thousand years) without more than ephemeral decreolizing pressure from the original superstrate.

Finally, because of the rising claims of “X-land for x-es in the interest of Western civilization, and boots for the others”, and quite apart from scholarly preoccupations, I find that it might deserve some attention that the very first beginning of “Western

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85 To mention but two examples, both connected to the conjectural development of the agglutinative language which we know from a more analytic stage and thus to my discussion of Jacobsen’s and Edzard’s objections: Firstly, a creole origin (and thus a relatively recent stage where morphemes have been free and hence syllabic) would affect the ongoing debate whether Sumerian morphemes have to be syllables (cf. [Wilcke 1988], against J. Krecher, and [SLa §233], against Yoshikawa).

Secondly, one might ask a number of heretical questions inherent in my discussion of Jacobsen’s objection: For instance, might not one of the reasons that early texts tend to write fewer grammatical elements be that the need for them was felt less strongly because their role in spoken language was less conspicuous, i.e., because fewer were used?

86 Empathy, as manifested in the distinction personal/non-personal in its relations with aspect, foregrounding/backgrounding and proto-ergativity, can be mentioned as an example.
civilization” (History Begins at Sumer, as Samuel Noah Kramer tells) might be a situation similar to the one within which the expansion of Western “civilization” has forced so many of “the others” to live since Columbus made the mistake of discovering America 500 years ago.

BIBLIOGRAPHY AND ABBREVIATIONS


