THE GRAMMAR OF LITERACY

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The paper lays down the theoretical foundation for treating the grammar of spoken face-to-face communication as a distinct entity from the grammar of well-edited written language. The ontogenetic, evolutionary and communicative primacy of the first over the second is taken for granted. The paper then goes on to suggest that the change from pre-literate (oral) to literate (written) grammar is the most important component in the acquisition of literacy, by far outstripping the more-visible component of converting phonetic into graphemic coding. It further suggests that the acquisition of literate grammar is a weak but reminiscent instance of second language acquisition. It finally suggests that in the teaching of literacy, the vast differences between oral and written grammar ought to be made explicit, along the model of "contrastive analysis".

1. PREAMBLE

Literacy is often taken to be a matter of learning to represent oral sounds by written symbols. That is, adding another superficial code layer to a pre-existing linguistic system. For languages with a sound-based alphabet, this means converting sounds to the written symbols that stand for them. For languages with ideographic writing, it means converting spoken words to symbols that stand for their meanings.

The idea that writing is a relatively trivial appendix to spoken language has its historical antecedent in Aristotle's celebrated passage on semiotics:

> ...Now spoken sounds [= words] are symbols of affections of the soul [= thoughts], and written marks are symbols of spoken sounds. And just as written marks are not the same for all men [= not universal], neither are spoken sounds. But what these are in the first place signs of –affections of the soul– are the same for all [= universal]; and what these affections are likenesses of –actual things– are also the same... (*De Interpretatione*, tr. & ed. by J.L. Ackrill, 1963)

SYNTAXIS 1 (1998) 1-40 http://www.philologia.uhu.es

The traditional discussion of literacy, from Aristotle onward, is almost entirely devoid of reference to grammar, and in particular, to the profound chasm between the grammar of spoken and written language. I propose to set the record straight here, by first establishing the centrality of grammar in literate language, and thus by extension in the teaching of literacy.

Before that can be done, however, we need to first settle two prior issues. First, we need to establish what grammar is, what grammar does, and how pre-literate grammar is first acquired. Second, we need to characterize the profound difference between the grammar of oral and written language.

2. WHAT GRAMMAR DOES

2.1. A FUNCTIONAL-ADAPTIVE VIEW OF GRAMMAR

I shall take it here for granted that grammar, like all evolved, bio-adaptive systems, is not just a set of arbitrary structures and/or rigid rules that must be obeyed in order to produce *grammatical sentences*. Rather, grammar is a set of strategies that one employs in order to produce *coherent communication* (Givón, 1993).

One may as well note that a purely structural approach to grammar-as-arbitrary-rules does indeed exist, and is best captured in Chomsky's well-known characterization of grammar as an algorithm:

> ...By "grammar of the language *L*" I will mean a device of some sort (that is, a set of rules) that provides, at least, a complete specification of an infinite set of grammatical sentences of *L* and their structural description. In addition to making precise the notion "structural description", the theory of grammar should meet requirements of the following kind. It should make available:
>
> (1) (a) a class of possible grammars *G1*, *G2*...
> (b) a class of possible sentences *S1*, *S2*...
> (c) a function *f* such that *f(i,j)* is a set of structural descriptions of the sentence *Si* that are provided by the grammar *Gj*,
> (d) a function *m(i)* which evaluates *Gi*,
> (e) a function *g* such that *g(i,n)* is the description of a finite automaton that takes sentences of (b) as input and gives structural descriptions assigned to these sentences by *Gi*...(Chomsky, 1961: 6)

In suggesting that grammatical structure is there –and is the way it is– for an adaptive reason, I merely follow the long common-sensical tradition of biology, a tradition that is taken for granted in standard text-books, as in:

> ...Anatomy is the science that deals with the structure of the body...physiology is defined as the science of function. Anatomy and physiology have more meaning when studied together... (Crouch, 1978: 9-10)

The antecedence of functionalism in biology once again harkens back all the way to Aristotle's dismantling of structuralism in *De Partibus Animalium*:

> ...if a piece of wood is to be split with an axe, the axe must of necessity be hard; and, if hard, it must of necessity be made of bronze or iron. Now exactly in the same way the body, which like the axe is an *instrument* – for both the body as a whole and its several parts individually have definite operations for which they are made; just in the same way, I say, the body if it is to do its *work* [i.e. function; TG], must of necessity be of such and such character... (*De Partibus Animalium*, McKeon ed. 1941: 650; emphases added)

Grammar, much like an organism, is a complex mixed bag. Parts of it are relatively rigid, rule governed and context-free. So much so that if one confines one's study to those portions alone, one is sorely tempted to subscribe to Chomsky's (1961) notion of grammar-as-algorithm.

Other parts of grammar are more flexible, graded and context-sensitive. They are thus perhaps more aptly described as "communicative strategies". If one confines one's study to those, one is likewise tempted to describe grammar as *entirely* flexible, ephemeral, emergent, as suggested by Paul Hopper:

> ...The notion of *emergence* is a pregnant one. It is not intended to be a standard sense of origins or genealogy, not a historical question of "how" the grammar came to be the way it "is", but instead it takes the adjective emergent seriously as a continual movement toward structure, a postponement or "deferral" of structure, a view of structure as always *provisional*, always *negotiable*, and in fact as *epiphenomenal*...Structure, then, in this view is not an overarching set of abstract principles, but more a question of a spreading of systematicity from individual words, phrases and small sets... (Hopper, 1987: 142; emphases added)

Fortunately, grammar is in fact neither wholly algorithmic nor entirely emergent. Taken as a whole, grammar is a hybrid system in which more rigid ("rule governed") and more flexible ("context scanning") components interact; and their interaction is determined by adaptive –cognitive, communicative– considerations.

3. THE ROLE OF GRAMMAR IN HUMAN COMMUNICATION

Well-coded human communication, what we refer to as human language, combines a number of mutually-interacting functional modules that can be divided first into two major components, each with distinct sub-components:

- The cognitive representation system:
  - The conceptual lexicon
  - Propositional information
  - Multi-propositional discourse

- The coding systems:
  - The peripheral sensory-motor coding system
  - The grammatical coding system

We will discuss them in order.

3.1. THE COGNITIVE REPRESENTATION SYSTEM

The cognitive representation system of human language is organized in three concentric components:

- The conceptual lexicon
- Propositional information
- Multi-propositional discourse

We will survey them in order.

3.1.1. THE CONCEPTUAL LEXICON

The human lexicon is a repository relatively time-stable socially-shared well-coded knowledge about our external-physical, social-cultural and internal-mental universe. By *relatively time-stable* I mean knowledge that is not in rapid flux.

By *socially shared* I mean that when launching into communication, speakers take it for granted that words have roughly the same meaning for all members of the same speech community.

By *well-coded* I mean that each lexical concept is more-or-less uniquely –or at least strongly– paired with its own perceptual word-form.

The conceptual lexicon is probably organized, neuro-cognitively, as a network of nodes and connections. Each node stands for a concept paired with a word-form (code form). But the uniqueness of the code-meaning pairing is not absolute, but is rather a strong tendency, so that ambiguity –one form paired to more than one meaning– is common (Haiman, 1985).

When an ambiguous word-form is activated, automatically several of its paired meanings can be activated, at least under some experimental conditions. This is called *multiple activation* (Swinney, 1979). The appropriate context often acts then to suppress the activation of all but the contextually relevant meaning; although the extent and manner of such suppression is a matter of some debate.

When a concept node is activated, related meanings are automatically also activated. This is called *spreading activation* (Neeley, 1990). But the degree to which such activation spreads beyond rather close conceptual proximity is also a matter of debate.

Within the lexical-semantic network, nodes stand for individual concepts, each with its own distinct meaning and code-label. By "concepts" we mean *types* of conventionalized experience, rather than the individual tokens subsumed under such types.

The conceptual lexicon is thus a repository of conventional, generalized experience types. 'Generic' and 'conventional' thus go hand in hand – conventionalization always subsumes a measure of abstraction and generalization.

A lexical concept may represent a relatively time-stable entity –physical object, landmark, location, plant, animal, person, cultural institution or abstract concept. These are typically *nouns*. Or it may represent an action, event, or process. These are typically *verbs*. It may represent a quality, property, relation or temporary state. These are often *adjectives*. Or it may convey some *adverb* meaning.

3.1.2. Propositional information and clauses

Clauses ('simple sentences') combine concepts (words) into propositional information about relations, qualities, states or events in which entities partake.

The information in the clause may pertain to the external world, to the internal (mental) world, to the culturally-mediated world, or to various combinations thereof.

Propositional information about unique states and events and unique entities is processed and stored in *episodic memory* (Atkinson and Shiffrin,

1968; Squire, 1987; Squire and Zola-Morgan, 1991; Petri and Mishkin, 1994).

A somewhat reciprocal relation holds between semantic-lexical and episodic-propositional knowledge, so that:

- Developmentally, memory traces of unique but similar individual experiences presumably give rise, after sufficient repetition, to time-stable concepts, habits or skills. And
- In processing unique experiences, one recognizes the entities, states, events or relations involved in them as tokens of well-known lexical types.

3.1.3. MULTI-PROPOSITIONAL DISCOURSE

Individual clauses are combined together into coherent discourse. Human discourse is predominantly multi-propositional. Its coherence thus extends over more than one clause. Multi-propositional information is also processed and stored in episodic memory.

To illustrate the combinatorial relation of conceptual meaning, propositional information and discourse coherence, consider the simple-minded examples in (1), (2) and (3) below:

(1) CONCEPTS=WORDS:
   a. drive
   b. insane
   c. constant
   d. abuse
   e. maid
   f. kill
   g. butler
   h. knife
   i. hide
   j. fridge

(2) CLAUSES=PROPOSITIONS:
   a. The maid was driven insane.
   b. The butler constantly abused the maid.
   c. The maid killed the butler with a knife.
   d. The maid hid the knife in the fridge last night.

(3) MULTI-PROPOSITIONAL DISCOURSE:
Having been driven insane
by constant abuse,
the maid killed the butler with the knife
that she had hidden in the fridge the night before.

Taken by themselves without propositional context, the words in (1a-j) convey only conceptual meaning. That is, you may only ask about them questions such as:

(4) a. What does *drive* mean?
b. Does *drive* mean the same as *abuse?*
c. If someone is a *maid*, can she also be a *butler*? Or a *woman?*
d. Is *kill* related in meaning to *die* or *murder?* If so, how?

Combined into clauses, as in (2a-d), the very same words now partake in clauses that code propositional information. In addition to questions of meaning (4), each clause in (2) may now prompt questions of information, such as:

(5) a. Was the maid driven insane?
b. Who abused the maid?
c. Who killed the butler?
d. Who did the maid kill?
e. What did the maid kill the butler with?
f. Did the maid kill the butler?
g. Where did the maid hide the knife?
h. When did the maid hide the knife in the fridge?

Finally, the multi-propositional discourse in (3), in which the individual propositions in (2) are now combined, has discourse coherence. In addition to questions of meaning such as (4), and of information such as (5), one may now ask questions that pertain to that coherence, such as:

(6) a. Why did she kill him?
b. How come she had a knife?
c. Why had the maid hidden the knife in the fridge?
d. Could she perhaps have talked to him first before taking such a drastic step?
e. Was her action reasonable? Was it defensible in a court of law?

The questions in (6) may appear deceptively like those in (5). However, each question in (5) can be answered on the basis of knowing only one proposition in (2). In contrast, none of the questions in (6) can be answered on the basis of knowing only a single proposition. Rather, the knowledge of several coherently-connected propositions –or even of the entire coherent text– in (3) is required in order to answer questions in (6).

A partial dissociation between conceptual meaning and propositional information is easy to demonstrate, by constructing grammatically well-formed sentences that make no sense; that is, sentences whose words are perfectly meaningful when taken each by itself, but still do not combine into a cogent proposition. This may be seen in Chomsky's ubiquitous example (7):

(7) Colorless green ideas sleep furiously

The meaning-clashes that make proposition (7) bizarre –'colorless green', 'green ideas', 'ideas sleep', 'sleep furiously'– are all due to the considerable semantic specificity of individual words.

The relation between lexical meaning and propositional information is thus an inclusion relation, or a one-way conditional association:

- One can understand the meaning of words independent of the proposition in which they may be embedded; but one cannot understand a proposition without understanding the meaning of the words that make it up.

The partial dissociation between propositional information and discourse coherence can also be demonstrated, by stringing together perfectly informative but incoherently combined propositions. Re-scrambling the coherent paragraph in (3) may thus yield:

(8) a. Having killed the butler with the knife
b. by constant abuse,
c. the maid had been driven insane
d. and had hidden it in the fridge the night before.

No propositional-semantic anomaly is discernible in the individual clauses (8a-d). The bizarreness of (8) as connected discourse is only due to lack of cross-clausal coherence.

The relation between propositional information and discourse coherence is thus also an inclusion relation or a one-way conditional association:

- One can understand the meaning of clauses independent of the discourse they are embedded in; but one cannot understand the discourse without understanding the propositions that make it up.

3.2. The coding systems

3.2.1. Peripheral sensory-motor codes

The peripheral sensory-motor codes of human communication involves two components:

(a) The decoder translates perceived incoming code ('input') into meaning and information. The perceptual modality of the incoming code may be auditory, visual (ASL, reading), or tactile (Braille reading). For at least two of these perceptual modalities–auditory and visual–language-specific decoding modules have been identified in the relevant sensory areas in the cortex (Posner et al., 1989; Posner and Pavese, 1997).

(b) The encoder translates outgoing meaning and information ('output') into motor instructions. The motor modality of the output may also vary: it may be oral-vocal, manual (typing, writing), or gestural (ASL). The motor programs associated with these coding modalities are probably language specific and governed by various sub-areas of the primary motor cortex.

3.2.2. What grammar is

3.2.2.1. Grammar as a code

The grammatical code is probably the most recent evolutionary addition to the arsenal of human language (Givón, 1979, 1989, 1995; Lieberman, 1984; Bickerton, 1990). While the evolutionary argument remains conjectural, it is supported by a coherent body of suggestive evidence.

The grammatical structure of human language is a much more abstract and complex device than the sensory-motor peripheral codes. Indeed, the notion of *structure* already hints at a more abstract level of organization.

At its most concrete, the primary grammatical signal involves four major coding devices:

(9) BUILDING BLOCKS OF THE GRAMMATICAL CODE:
a. Morphology (prefixes, suffixes)
b. Intonation (stress, melodic contours)
c. Rhythmics (pace, pauses)
d. Sequential order (syntactic, morphotactic)

Morphology (9a) and intonation (9b) are the most concrete building blocks of the grammatical code elements of the grammatical code. They employ the same physical coding-devices –sounds, letters, gestures– that code lexical meaning. But these concrete devices are integrated in the complex whole of grammar with more abstract code elements –rhythmics (9c) and sequential order (9d). And the latter are probably already second-order constructs inferred from some more concrete signals.

Grammar is the coding instrument for both informational components that feed into episodic memory–propositional semantics and discourse pragmatics. What is extracted from the primary grammatical signal (9) is the complex grammatical, semantic and pragmatic organization of both clauses and multi-clausal discourse. That is, at the very least:

(10) INFORMATION EXTRACTED FROM THE PRIMARY GRAMMATICAL SIGNAL:
a. Hierarchic organization (constituency) of components
b. Their grammatical category
c. Their scope and relevance relations
d. Their government and control relations

3.2.2.2. GRAMMATICAL SUB-SYSTEMS: FUNCTIONAL DOMAINS

The grammar of a mature adult spoken language usually encompasses between 20-30 major grammatical sub-systems. Linguists are in the habit of referring to these sub-systems by structural labels, i.e. construction types or clause types. It is worth noting however, that the overall organization of grammar into various clause types is essentially functional.

One may speak of the whole grammar as an organism, whereby the various clause types are organs. While one may describe the organs that perform, say, human ambulation, tool-use, blood circulation, breathing, digestion, vision or cognition as "structures", it is rather transparent that they represent various *functional domains*. The same is true of grammar.

So that while a grammarian may continue to refer to them by their traditional structural labels, those labels really stand in for the various functional domains coded by grammar. Some of those are:

(11) MAJOR GRAMMAR-CODED FUNCTIONAL DOMAINS:
- simple event/state clauses
  (event types, participant types, transitivity)
- nominal modalities
  (reference, topicality, subjecthood, objecthood, deixis, anaphora and pronouns)
- propositional modalities
  (tense, aspect, modality, negation, evidentiality)
- verbal complements
  (modality, manipulation, perception, cognition, utterance)
- relative clauses
  (reference, restriction, presupposition, backgrounding)
- de-transitivizing structures
  (passive, middle, antipassive, inverse)
- topicalizing and focusing clauses
  (cleft, dislocation, presentative)
- non-declarative speech-acts
  (questions, commands, requests, exhortations)
- adverbial clauses
  (time, condition, cause, concession)
- conjoined or chained clauses
- noun-phrase structure
  (modification, nominalizations)

Much like organs in the living organism, the various grammar-coded functional domains interact with each other in complex, specific ways. Further, many of them may be functionally and diachronically related, so that often the same structure may code more than one function. Their boundaries are thus relative rather than absolute.

4. GRAMMATICAL VS. PRE-GRAMMAR

Under a variety of developmental or neurological conditions, humans can communicate readily without grammar, using a well-coded lexicon with some rudimentary combinatorial rules. Pre-grammatical communication is most often found in three distinct contexts:

- early child language acquisition
- natural second-language acquisition
- agrammatical aphasic communication

Representative examples of those three are given below.

(12) EARLY CHILD PIDGIN
(English; 20-22 months; Givón, 1990)

a. way maus bayk (VSO)
ride mouse bike
'The mouse is riding a bike'

b. way dada gaga (VSO)
ride daddy tractor
'Daddy rides the tractor'

c. maws way bayk (SVO)
mouse ride bike
'The mouse is riding a bike'

d. bay dawn, nana dawn (SV) (pushing bike down stairs)
bike down Nathaniel down
'The bike goes down, Nathaniel goes down'

e. mama ki n ka? (OV?)
mama key in car
'Can I put mama's key in the ignition?'

f. bu n da papi?
boot on the puppy
'Can I put the boot on the puppy?'
[MOTHER: No, puppy can't wear boots.]
nana bu an?
Nathaniel boot on
'Can I put the boot on?'

g. papi i da bey-do?
puppy eat the play-dough
'Can/did the puppy eat the play-dough?'

h. wi ba nana mama? (V-PAT-BEN-AGT)

read book Nathaniel mama
'Will you (mama) read me (Nathaniel) a book?'

i. ap da do? Dada apn da do?
open the door Daddy open the door
'Can you open the door? Daddy will you open the door?'

j. nana papi hai? (SOV) (looking at puppy through window)
Nathaniel puppy hi
'Can I say 'hi' to the puppy?'

k. Dada po? dada nana go? Wim? Wim. (nods)
daddy pool daddy Nathaniel go Swim Swim
'Go with Daddy to the pool? Will Daddy take me to the pool?
Swimming? Yeah, swimming'.

l. [anticipating a trip]
In atnga. Sit dawn. tan ki.
in airplane sit down turn key
'(We'll go) in the airplane, sit down, turn the key,
Vruum vruum! Tan tu da rayt. Atnga!
vr. vr. turn to the right airplane
And vroom vroom! (We'll) turn to the right. Airplane
(flies)!'

(13) SECOND LANGUAGE PIDGIN
(Japanese-English; male ca. 80 yrs; Bickerton and Givón 1976)
"...oh me?...oh me over there...
nineteen-twenty over there say come...
store me stop begin open... me sixty year...
little more sixty year... now me ninety...
nah ehm... little more... this man ninety-two...
yeah, this month over... me Hawaii come-*desu*...
nineteen seven come... me number first here...
me-*wa* tell... you sabe gurumeru?...
you no sabe gurumeru?...
yeah this place come...
this place been two-four-five year...
stop, ey... then me go home... Japan...
by-n-by... little boy... come...

by-n-by he been come here... ey...
by-n-by come...
by-n-by me before Hui-Hui stop...
Hui-Hui this... eh... he... this a...
Manuel... you sabe-*ka*..."

(14) AGRAMMATIC APHASIA 'PIDGIN'
(Menn 1990: 165)
"...I had stroke... blood pressure... low pressure...
period... Ah... pass out... Uh... Rosa and I, and...
friends... of mine... uh... uh... shore... uh drink,
talk, pass out..."
"...Hahnemann Hospital... uh, uh I... uh uh wife, Rosa...
uh... take... uh... love... ladies... uh Ocean uh Hospital
and transfer Hahnemann Hospital ambulance... uh...
half'n hour... uh... uh it's... uh... motion, motion...
uh... bad... patient... I uh... flat on the back...
um... it's... uh... shaved, shaved... nurse, shaved me...
uh... shaved me, nurse... [sigh]... wheel chair... uh...
Hahnemann Hospital... a week, a week... uh... then uh...
strength... uh... mood... uh... up... uh... legs and
arms, left side uh... weak... and... Moss Hospital...
two week... no, two months..."

In the absence of morpho-syntax, the bulk of the well-coded clues for establishing discourse coherence in pre-grammatical communication are furnished by the vocabulary (lexicon). But a small component of *proto-grammar* is already evident in pre-grammatical communication (see further below). And situational and generic-cultural contextual clues remain ever-present.

Neither lexical information nor the situational and cultural contexts disappear in the grammaticalized communication. Rather, they remain as parallel processing channels alongside grammar (Kintsch, 1992; Givón, 1992, 1995 ch. 8). In the transition from pidgin to grammaticalized communication, the relative functional load on vocabulary and context is diminished, with the slack picked up by grammar.

The differences –structural, functional and cognitive– between pre-grammatical and grammaticalized communication are summarized below:

(15) PRE-GRAMMATICAL VS. GRAMMATICAL DISCOURSE PROCESSING
(Givón, 1979, ch. 5; 1989, ch.7; 1995, ch. 8)

properties	grammatical mode	pre-grammatical mode
STRUCTURAL:		
a. Grammatical morphology	abundant	absent
b. Syntactic constructions	complex/embedded	simple/conjoined
c. Use of word-order:	grammatical (subj/obj)	pragmatic(topic/comment)
d. Pauses:	fluent	halting
FUNCTIONAL:		
e. processing speed:	fast	slow
f. Mental effort:	effortless	laborious
g. Error rate:	lower	higher
h. Context dependence:	lower	higher
COGNITIVE:		
i. Processing mode:	automated	attended
j. acquisition:	late	early
k. evolution:	late	early

Slow and analytic, pre-grammatical communication is heavily dependent on inferences derived from the lexical-generic, situational and textual context (Kintsch, 1992). This goes well with the observation that vocabulary is acquired before grammar in both first and second language acquisition. Pre-grammatical children, adult pidgin speaker and agrammatical aphasics all comprehend and produce coherent, connected discourse. But their communication is marked by slower speed and high error rates –as compared to grammaticalized communication.

The identification of grammar as a partially automated, streamlined, conventionalized, speeded-up language processing device has long been recognized (Givón, 1979 ch. 5; 1989 ch. 7; 1991; 1995 ch. 8; Blumstein and Milberg, 1983; Lieberman, 1984; Schnitzer, 1989). In its functional and cognitive aspects, the contrast between pre-grammar and grammar closely parallels the contrast between attended and automated processing, respectively (Posner and Boies, 1971; Posner and Warren, 1972; Posner and Snyder, 1974; Schneider and Shiffrin, 1977; Schneider, 1985).

5. PRE-GRAMMAR AS PROTO-GRAMMAR

Earlier discussion of pre-grammatical communication has tended to view pidgin communication as totally lacking in morpho-syntax, a variable, opportunistic system of communicating on the fly (Bickerton 1975, 1977; Bickerton and Odo, 1976; Bickerton and Givón, 1976). On closer examination, pidgin communication turns out to abide by a number of distinct "rules" –*conventions* if one will– that may be called proto-grammar.

The reason the regularities of proto-grammar may be better viewed as conventions rather than rules is two-fold. First, on the scale of degree of rigidity and automaticity (see section 2.1. above), the regularities of proto-grammar occupy the more flexible, context-sensitive end.

Second, the regularities of proto-grammar are highly *iconic* and non-arbitrary. That is, they are cognitively and communicatively transparent – as compared with more arbitrary, symbolic grammatical morphology and syntactic constructions.

The main "rules" of proto-grammar are summarized below (Givón 1984, 1985; Haiman 1985, ed. 1985):

(16) MELODY AND RHYTHM (INTONATION):

a. Stress and predictability:
"Less-predictable information chunks are stressed"

b. Melody and relevance:
"Information chunks that belong together conceptually are packed together under a unified melodic contour".

c. Pause and rhythm:
"The size of the temporal break between information chunks corresponds to the size of the cognitive or thematic distance between them".

(17) SPACING:

a. Proximity and relevance:
"Information chunks that belong together conceptually are kept in close spatio-temporal proximity".

b. Proximity and scope:
"Functional operators are kept closest to the operand to which they are relevant".

(18) SEQUENTIAL ORDER:

a. Order and importance:
"A more important information chunk is fronted".

b. Occurrence order and reported order:
"The temporal order in which events occurred will be mirrored in the linguistic report of the events".

(19) CODE QUANTITY:
a. Zero expression and predictability:
"Predictable –or already activated– information will be left unexpressed".
b. Zero expression and relevance:
"Unimportant or irrelevant information will be left unexpressed".

The most interesting fact about the rules of proto-grammar is that, without exception, they are incorporated as an integral component of grammaticalized language (Givón 1984, 1985, 1989 ch. 2; Haiman 1985, ed. 1985). In the transition from proto-grammar to grammar, nothing is thus lost, but rather a considerable amount of machinery is added. In grammaticalized communication, the "rules" of proto-grammar are closely integrated, in the makeup of grammatical constructions, with the more arbitrary (symbolic) coding devices of grammar –morphology, hierarchic construction, and grammatical word-order.

6. LITERACY AS SECOND LANGUAGE ACQUISITION

6.1. PREAMBLE

By the time a child enters formal schooling, in our culture somewhere around the age of 6, s/he is a fluent –albeit far from fully competent– speaker of a grammaticalized first language. That is, school-age children are fluent speaker of some informal spoken variety of their native language. While not identical to adult oral version, pre-school grammar is just as coherent and rule-governed as adult oral grammar.

As I will argue below, the grammar of pre-literate oral language differs substantially from the grammar of written language. Therefore, to some extent the acquisition of literacy parallels the acquisition of a second language.

6.2. FIRST LANGUAGE(S)

The grammaticalized oral language of a six-year-old child is in fact at least the *fourth* distinct, coherent communicative system the child has acquired.

(A) SENSORY-MOTOR STAGE

By the age of 6-9 months, children have acquired a communicative system sometime referred to as *the sensory-motor period* (Carter, 1974; Dore, 1976; Lamendella, 1976). Largely devoid of well-coded vocabulary, 9-month-old children nonetheless possess a rich cognitive system of coding experience. They recognize and respond systematically to objects, persons, and locations; motion and stasis in time and space; events, actions, states and qualities; internal states of knowledge, intention and affect. And they recognize and perform distinctly-coded speech-acts.

The 9-months-old child's cognitive system is coupled to communicative signals that include eye-contact, facial expressions, bodily gestures and vocal interjections. In evolutionary terms, this communicative system is broadly similar to natural primate communication (de Waal, 1982; Cheyney and Seyfarth, 1990; Savage-Rumbaugh, 1994; Tomasello and Call, 1997).

(B) THE ONE-WORD STAGE

The next distinct child communication system is the so-called *one-word stage* (Bloom, 1973, Scollon, 1976) which kicks in around the age of 12 months. To begin this, communication now involves well-coded oral vocabulary, heavily weighted at the beginning toward nouns. Second, single words are now systematically used to code whole clauses. And although most of those one-word clauses are manipulative, some are already declarative.

The single word that codes the whole clause is most often either the clause's subject, object, location, predicate-adjective, modifying adjective, adverb or verb.

As Scollon (1976) has noted, conversation with a one-year-old child require intensive collaborative interpretation. Scollon argues that the diadic interaction represents a *vertical construction*, by which he probably means that each one-word utterance is an independent communicative turn. Thus consider (Scollon, 1976):

(20) [Context: B. pointing toward bathroom]

BRENDA	FATHER
fa, fa	
	Hm?
fa	
	Bathroom?
fan, fan	
	Fan! yeah.
coo	
	Cool, yeah, fan makes you cool.

(21) [Context: B. emptying juice from cup]

BRENDA	FATHER
na	
	what?
nau	
	Now? No?
aweu	
	Allgone?
awan	

Bloom's (1973) transcripts are rather similar, as in:

(21) [Context: Gia picking up mother's slipper]

GIA	MOTHER
mommy. mommy.	
	What's that?
slipper.	
	Slipper.
mommy.	

(c) The two-word stage

The so-called *two-word stage* of child communication kicks in around the age of 18 months. This communicative system is probably one and the same as child pidgin, described above. Verbal clauses are now coded by, on the average, two words. The two words are most commonly

either two nouns (subject-object), a noun and a verb (subject-verb, object-verb, location-verb), or a noun and an adjective (noun-modifier; subject-predicate).

Further, multi-clausal discourse –coherence across two or more clauses– is now found. As Ervin-Tripp (1970) points out, however, multi-clausal coherence is first achieved collaboratively, across child-adult turns. As examples of such collaboration, consider the following exchanges between a 20-months old boy and his mother (Givón, 1990):

(23) [Context: N. pointing at pictures]

NATHANIEL	MOTHER
A kitty.	
	Yes, a kitty.
And a puppy.	
	Yes, and a puppy.
Two.	
	Yeah, two, together!
Ride puppy?	
	No, we just ride horses.
Ride horse?	
	Yeah, horses.
Ride cow?	

(24) [Context: At the dinner table]

NATHANIEL	MOTHER
happy.	
	You're happy? Mama's happy.
Dada happy?	
	Yes, Daddy's happy.
Puppy happy?	
	Yes...
Apple happy?	
	Apple (juice)? Oh, yes...
Rice happy?	
	Rice? Oh, yes...

6.3. EARLY GRAMMATICALIZATION

Since grammar is used primarily to code cross-clausal coherence, it is not an accident that grammaticalization kicks in in earnest around the

age of 24 months, when children have already established some multi-clausal coherence in pre-grammatical (pidgin) discourse.

Children do not acquire grammar instantaneously and uniformly, but rather gradually, piece-meal, construction by construction and verb by verb (Slobin, ed. 1985; Tomasello, 1992). By age 6, their oral grammatical competence by no means covers the entire adult oral range.

While child grammar eventually moves closer to the adult input, it does not follow it slavishly. The following examples illustrate creative grammatical innovations in English, by children 2.4 to 6 years old. The innovations were, most likely, not attested in the adult input.

(25) CREATIVE GRAMMATICALIZATION BY CHILDREN:

a. Clause-initial negation: (McNeill, 1970)
no the sun shining
no Fraser read it

b. Order of pronouns: (widespread)
Give *me it*
He showed *me it*

c. The indefinite article 'this': (widespread; Shroyer, 1985)
...and he saw *this* great big bear...

d. Nominal relative clauses: (Hamburger & Crain, 1982)
This is *my did it* ('This is *what I did*')
Look-a *my made* ('Look at *what I made*')

e. Simplified WH-questions: (Gruber, 1967)
What do wheel? ('What *does* the wheel do?')
Where went the wheel? ('Where *did* the wheel go?')
Where it is? ('Where is it?')

f. Deictic articles: (Gruber, 1967)
in *there* wheels ('In *the* wheels *there*')
go in *there* train ('Go in *the* train *there*')

g. Regularized grammatical morphology: (Berko, 1961)
foot*s* > feet*s* > feet
I see > I see*d* > I saw*d* > I saw
I'*ve* got > I got/you got > he got*s*

h. Unmarked causatives: (Bowerman, 1983)
We *learned* them a lesson (widespread; = 'teach')
I'm gonna *sharp* this pencil (2.11; = 'sharpen')
Don't *tight* this (2.4; = 'tighten')
Go me to the bathroom (3.10; = 'take')
I *come* it closer (2.9; = 'bring')
Can you *stay* this open (2.6; = 'keep')
Don't *dead* him (4.10; = 'kill')

i. Causative-resultative constructions: (Bowerman, 1980)
You're *combing* me *baldheaded* (5.10)
I'm *patting* her *wet* (4.0)
Are you *washing* me *blind*? (5.6)
They *robbed* us *blind* (widespread)

Children's creative grammatical innovations of the type shown above were thought at one time to play a pivotal role in diachronic grammatical change (Slobin, 1977).

Further examination suggests that much of childhood innovations do not filter into larger social circles, and are eventually discarded, presumably due to social pressure from the top.

7. THE GRAMMAR OF ORAL LANGUAGE

7.1. BACKGROUND

It is the bane of much of modern linguistics that much of its theorizing derives itself from the study of written, formal, well edited text. Theories that spring from the exclusive preoccupation with this relatively well-ordered data-base have tended to over-estimate the degree of rigidity – generativity– of human grammar.

In describing grammar as a rigid algorithm, formal theories of language have chosen to ignore the grammar of spoken language altogether. They ignore the considerable variability and flexibility of oral grammar, as well as the profoundly opportunistic, unplanned speech processing mode employed during oral face-to-face communication. Consequently, they also ignore the systematic regularities that characterize oral grammar, as well as the systematic differences between oral and written grammar.

The formal theorist's inattention to oral grammar is made possible by a distinct apriori assumption –that the human linguistic capacity involves an *underlying knowledge-of-grammar* component that is the same for oral and written grammar language. Whatever differences are observed

between oral and written communication, in either production manner or actual output, can then be ascribed to properties of the *processor*.

This assumption has been enshrined in Chomsky's fatal distinction between linguistic *competence* and *performance*. A profound indifference to –and abstraction from– speech production and natural communication is already discernible in Chomsky's early writings:[1]

> ...A grammar, in the sense described above, is essentially a theory of the sentences of a language...It is not, however, a model of the speaker or hearer... (Chomsky, 1961: 7)

The later introduction of *competence* vs. *performance* merely enshrines this profound indifference to natural speech:

> ...Linguistic theory is concerned primarily with an ideal speaker-listener, in a completely homogeneous speech community, who knows its language perfectly and is unaffected by such grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance.
> This seems to me to have been the position of the founders of modern linguistics, and no cogent reason for modifying it has been offered. To study actual linguistic performance, we must consider the interaction of a variety of factors, of which the underlying competence of the speaker-hearer is only one...
> ...We thus make a fundamental distinction between *competence* (the speaker-hearer's knowledge of his language) and *performance* (the actual use of language in correct situations... (Chomsky, 1965: 3-4)

7.2. Oral language

The following is the transcriptions of oral English narrative, collected from a male rancher about 56 years old, recorded in Bloomfield, NM ca. 1980 (Givón, 1983).

(26) Recorded oral narrative:

> "...Well we, you could drill wells, we finally... got a good well, lots o' water and wonderful, good water...How deep? I think it was eighty-some feet deep, I believe...'course, that was ol' slow cable-tube drillin' then...But anyway, we'll get into that part later...But we moved there...and my, my politician brother over here and ah, and another

one and my cousin, ol' Buster...and some neighbors that moved out there too, some other people... It was 'bout four-five families moved out there from this...together, yeah, Brownfield area...Well, we didn't move together but they did bring the stock. [long pause] My dad, he had 'bout fifty head o' cows, and 'bout forty head o' horses and mules, and they spent all summer drivin' 'em out...Let's see, it must'a been at least seven hundred miles from Brownfield to that ol' homestead..."

Consider next a conversation recorded from two college seniors in their early twenties, directly followed by narratives in which the two recall the conversation they have just had (Dickinson and Givón, 1997; Givón, 1997):

(27) RECORDED CONVERSATION BETWEEN VICKY AND LORI:
VICKY: [...] first what was the guy wearing?
LORI: He was wearing, uh, red shorts and a white T-shirt. No shoes..
V: No shoes?
L: No shoes.
V: My guy was wearing [foot...] or something...
L: OK... Now, first [...] the guy came in carrying three long tools and a.. uh, atchet... and, uh, he walked over to a tree, set them down, they fell down once and he brought... and then... he picked them up..
V: OK, mine... I'd, you know I didn't really count... I think mine had two...
L: Yeah.
V: And, they dropped and he picked them back up.
L: OK. And then what did he do?
V: And he had, uh... a hatchet.
L: Yeah
V: And he went over to the wood pile, ove' to where the wood was... and he started chopping, it was rather ineffective, but he was chopping, and...
L: Pieces of wood? [OL]
V: Yeah they were about... boy, maybe, two inches in diameter...
L: Yeah...[OL]
V: three... pieces about... foot-and-a-half long...
L: OK
V: And...uh he would... chop them and throw them over the side... uh there're maybe seven or eight...of them...
L: There may have been more, I think [...] more [...]

[TG: YOU GOTTA SPEAK LOUDER.]
V: [...] my guess is there were four or five... Umm... and then the woman came in, she's wearing uh a pink skirt and, a white... blouse, a light shirt with color... she was wearing... red shoes... That the same?
L: Umm, all th't I really remember 'bout the dress there was a dress... I think it was a skirt and a blouse...
V: OK.
L: And the blouse was white, or was a light color... it was half color...
V: OK... uh... what did she do?
L: Well, they talked, they conversed... and... ummm... it sounded to me like she was telling him... you know "Right [...] enough with the wood..." you know, "go... go hoe..." you know, the... the field or whatever...
V: "I'll take care of the fire..."
L: Yes... and so she collects the wood, and she goes over to like, one of those little umm... lean-to, or shed... and... she, collects some... uh... some kindling, or some little twigs... OK, what's up?
V: My lady she went over and kinda yelled at him for... sounded like she yelled at him for doing whatever... and then she took, his, pile of wood and went over to a big... uh... kind of a little mountain of brush... she was hauling to around... and she... too out about a dozen a... took them and broke them... and collected them all in a... bundle...
L: You're right, I'm wrong...
V: [laughing; OL]
L: it was a mountain of brush...
V: OK...
L: and then she went to [....] a whole pile...
V: yes [....] [OL]

The following two narratives record the two conversation participants' recollection of the conversation they have just had (27).

(27') LORI'S SUBSEQUENT RECOLLECTION (NARRATIVE):
"...The conversation I had with Vicky. First of all she started out by saying what the man was wearing, and that he was carrying three farming utensils plus a hatchet, and, actually, no, she started out asking me what he was wearing. And I said that he was wearing red shorts and a white T-shirt and no thongs or anything. And she said that he was wearing a red shorts and a white T-shirt, but that he had flop flops on. She said that and then she said that he had three...

[INTERVIEWER: YOU CAN JUST TALK REGULAR]
He had three, uh, um, farming utensils and, um... I said, well I think I saw two, and that was one difference that we, that we had in the film. And then she said, then she said that he went over to... uh, no then I said that he went over to some wood and he started chopping the wood. And I said that the wood was probably about two inches in diameter. And maybe it was about a foot and a half long the pieces, and that he was chopping, but rather ineffectively, and that he was throwing the pieces of wood over to the side. And I said he chopped seven or eight pieces, and then she said that he chopped four, three to five, something like that. And then, what happened next... and then I think that she said that the woman came in and then she described the woman's outfit, that it was a white blouse with a collar that was buttoned up. And it was a pink skirt?... Then I said, well, I couldn't remember what she was wearing exactly, that maybe it was a white blouse and a skirt, and it was like a pastel color. And... and that, um, they went over and they had some sort of an argument, and I said that to me it sounded like she was telling him you know "why are you cutting this wood? I can take care of the fire wood. You go and, and you know, hoe the field". And so he went and hoed the field. He picked up his utensils. I, we didn't talk about that.
So he went and and went to the field. And she picked up the wood that he had thrown to the side...
[INTERVIEWER: IS THIS WHAT YOUR TELLING? IS THIS THE CONVERSATION OR THE MOVIE?]
This is the movie.
[INTERVIEWER: OKAY. LET'S STICK TO THE CONVERSATION]
Yeah, right. Okay, so what did she say next? or what did I say next? ... We talked about that he chopped the wood, rather ineffectively, threw it to the side. Talked about the different amounts different amounts of wood that he chopped up, and that she came over and we both agreed, that, um, they argued about something. And I'm the one that said, well, I think that she talked about, that she was saying, you know, "why bother with the wood. I can take care of that. You go hoe the field".
And Vicky agreed with me that it was something like that...
And then... Vicky described the next scene, and she said, that the woman.. or did I describe the next scene? I said that she went and picked up some brush... for the fire, she took some fire wood and went and got some brush. And I said that she went to the shed and

got her brush, and Vicky said that she didn't go to a shed in HER film, but that she went to, like, this mound or something, it wasn't the shed, it was a different place. And I said "oh yeah, that's right, I was wrong". Cuz that's what happened..."

(27") VICKY'S SUBSEQUENT RECOLLECTION (NARRATIVE):

"...Do you want to know everything that we said?
[INTERVIEWER: EVERYTHING]
Oh boy. I wasn't thinking about that. I forgot. Um, okay. We were trying to decide whether we had the same video or not. Um, first I asked Lori what the guy was wearing. Um she said he was wearing a white T-shirt or white shirt and red shorts and no shoes. And I said that my guy was wearing flip flops, I thought it sounded like flip flops. Um, Then I said that, um, the video started with the guy coming in, he walked across the field carrying three tools and a hatchet. He went over to a tree, he put/leaned them up against the tree and they fell down and he put them back up...
and I asked Lori if that was the same thing that happened in hers, and she said "yes", and she then said that he took the hatchet and went over to the wood pile and started chopping up wood kind of very ineffectively. Um, we discussed the size of the wood, about 2 inches in diameter, about a foot and a half long. And, um, she said that he'd made about seven or eight cuts, or seven or eight pieces of wood, and I said that I thought, mine was, my video had a few less, four, five or six, um, and then I said that the woman came in. She was wearing a white shirt with a collar and a pink skirt and red shoes. Um, she said she wasn't paying a whole lot of attention, but she knew that she thought the lady was wearing a white shirt and some, oh, she said the lady was wearing a dress. And then she thought about it longer and said probably a white shirt and some sort of pastel light colored... um, then I think that Lori said that she went over, yeah, Lori said that she went over to the guy and kind of talked with him, and then she said she was kind of yelling at him in a way for, um, messing with the wood when he should be out hoeing his field. So, she, Lori told me that she, she then went over to a lean-to and started chopping up wood. Um, or not chopping up wood but gathering brush, something like that. And I interrupted and said that my lady didn't go over to a lean-to, that she took his pile of wood then went over to kind of a small mountain of brush and started collecting, collecting stuff. And then Lori said that

remembered that that was what had happened in hers, she said that she was wrong, there was no lean-to and that she went over to a mountain of brush also. And then I think we talked about that scene in a little bit more detail.
I talked about her gathering the brush, and then she, I said that she picked up the brush and then walked..."

Oral grammar is of course not strictly confined to face-to-face communication anymore. It warms its way into fiction, most often in the quoted dialog but also in the narrative voice itself. Consider, for example, the following passage from a short story in *The New Yorker*:[2]

(28) WRITTEN ORAL GRAMMAR:

"...There's *this* policeman and his name is Bradley and every night there's *this* thief going around swiping one wheel from everybody's bicycle. Bradley's partner's name is Fred that this thief swipes one wheel from *his* bicycle. His daughter is Tracey. Fred has a police dog that he makes *him* sniff all the bicycles..."

The use of both 'this' as a referring-indefinite article (Shroyer 1985; Wright and Givón 1987) and resumptive pronouns in object REL-clauses is normally confined to the grammar of oral English.

In the same vein, the italicized subject REL-clauses in (29) below, from quoted dialog in a novel by Elmore Leonard, faithfully mimic uneducated spoken American English. In actual speech, intonation contours help clue the hearer to the grammatical status of these as subordinate clauses:[3]

(29) FICTION-WRITTEN ORAL DIALOG:

a. "...I been trying to get you, two days I been calling you. I figure you're shacked up with some broad *filed for divorce*. Needs a little sympathy, huh?..." 12)
b. "...I can't imagine the stockholder being too happy, splitting something he owns with a guy *walks in off the street*..." (31)
c. "...Virgil asked him whatever happened to Wendell Haines and Bobby said Wendell had died. Virgil said he heard something like that, but who was it *shot him*?..." (95)

Many adult speakers of American English, even when technically literate, continue to write the way they speak. The following is an excerpt from a personal letter written by a 35-year-old woman:

(30) WRITING LIKE SPEAKING: [PERSONAL LETTER; ADULT F, APPROX 35 YRS OLD]
"...Me i look for work i could do at home nothing yet. Babysitting I'll do once in a while as C. got sick for a month when i babysat boys that got sick after I started J. works all the time to make up for my pay loves staying at home when he's off. I walk 4 miles a week for exercising...Last weekend in July C. actually started to walk with out holding on to something. Talks a few words baby talks i under stand her. She'll say hi there to people she knows she's shy around strangers. Daddy's girl can't go (J.) anywhere with out C. when he's home. Her rooms cute since we J. painted it yellow the color she picked and bears paper thats a trim..."

In addition to specific grammatical constructions, morphemes and "discourse markers", the grammar of oral language is replete with features that are unique to face-to-face communication, such as:[4]

(31) UNIVERSAL GRAMMATICAL FEATURES OF ORAL LANGUAGE:
- short clausal "bursts"
- packaged under distinct tonal contours
- separated by clear pauses
- unembedded dependent clauses
- hedges
- repetitions
- overlaps
- truncations
- zero-anaphoric reference
- run-on clauses
- left and right dislocations

The following example, from Chafe (1992), further illustrates the rhythmic qualities of short clausal "bursts" in oral narrative, as well as the non-embedding of dependent clauses:

(32) clausal "bursts"	notes
a. ...And Chris said,	separate main clause
b. you know, ~	modal operator
c. we need to run back,	unembedded dependent clause
d. and so they ran,	
e. and this lady,	dislocated subject/topic
f. nobody knows yet why,	elliptic complement clause
g. and most of us think,	separate main clause
h. she probably fainted,	unembedded dependent clause
i. but she fell...	

All the features of oral grammar (31) are also characteristic of pre-grammatical *pidgin* communication. So much so that it has been suggested that well-edited written text represents the extreme point on the grammaticalization scale (16). Oral language, on the other hand, occupies an intermediate position on the scale, closer to pre-grammatical communication (Givón, 1979, ch. 5; see also Keenan and Bennett, 1977).

The differences between oral and written grammar are often distributional rather than absolute. As an illustration of this, consider the distribution of the two main types of clause combining in English discourse –conjoined vs. subordinate clause– in written academic and informal oral narrative:

(33) FREQUENCY DISTRIBUTION OF MAIN VS. SUBORDINATE CLAUSES IN ENGLISH NARRATIVE[5]

written-academic						oral-informal					
conj.		subord.		total		conj.		subord.		total	
N	%	N	%	N	%	N	%	N	%	N	%
43	36%	77	**64%**	120	100%	120	**86%**	20	14%	140	100%

One may of course argue that none of the features listed in (31), as well as stark distributional differences as in (33), are at all a matter of grammar –competence– but simply reveal the performance characteristics of oral language. In other words, they are matters of *style* or *genre*.

The trouble with such an argument is that it is both apriori and tautological. To drive this point home, consider the following clause-by-clause translation of two passages from the oral narrative (27) into relatively well-edited written text. The translator was present during the original oral elicitation.

(34) TRANSLATION FROM ORAL CONVERSATION TO EDITED WRITTEN NARRATIVE:

A. AS SPOKEN ('PERFORMANCE'):

V: And he went over to the wood pile, ove' to where the wood was... and he started chopping, it was rather ineffective, but he was chopping, and...
L: Pieces of wood? [OL]
V: Yeah they were about... boy, maybe, two inches in diameter...
L: Yeah...[OL]
V: three... pieces about... foot-and-a-half long...
L: OK
V: And...uh he would... chop them and throw them over the side. uh there're...maybe seven or eight...of them...
L: There may have been more...

B. EDITED ('COMPETENCE'):

And he went over to where the pile of wood was and started chopping wood rather ineffectively. He was chopping pieces perhaps two or three inches in diameter, about a foot and a half long. He would chop them and throw them over to the side. There were seven or eight of those pieces or maybe even more.

Proponents of "competence" may of course insist that edited written translation (34b) represent "what the sloppy informal speakers really meant" in their collaborative face-to-face text production. In other words, the edited written (34b) represents the "underlying competence" of the orally produced (34a).

But the oral version (34a) does not represent a different *meaning* than its well-edited written equivalent (34b). Indeed, my translation was only possible because I recognized, with little difficulty, that both text types –spoken and written– represented the *very same* meaning.

The difference between the two texts is thus a matter of *grammatical form*, pure and simple. That is, the difference between the grammar of oral and literate language.

Further, as far as I can see, there is no principled reason for one to insist that the underlying grammatical competence of the native English speaker is somehow better represented by the written grammar of (34b) than by the oral grammar of (34a). If anything, spoken language has clear primacy over written language in a number of significant measures:

- prior evolution
- prior ontogenesis
- dedicated neuro-cognitive mechanisms
- higher use frequency for most cultures/speakers
- greater number of pre-literate languages/cultures

Speakers adept at both the spoken and written form may thus be considered, to all intent and purpose, *bilingual*. They are in fluent control of both forms of grammatical packaging, and can translate from one variant to the other.

Chomsky's linchpin *deus ex machina* –competence– thus reveals itself to be the offspring of pre-empirical philosophical prejudice –a preference for edited written text as source of data– rather than of cogently argued methodology. The affinity of Chomsky's prejudice to both Plato's essentialism (*eidea*) and the positivists (Russell, 1918, 1924; Carnap, 1956, 1959) predilection for formal language is of course transparent.

8. HYPERLITERACY

One may as well note that, much like bilingual individuals may lose much or all of their native language competence, literate people can lose their native oral competence. Academic discourse, both oral and written, is replete with monstrosities that attest to this tragic state of affairs. As an illustration, consider the following entry from the *Encyclopaedia Britannica*:[6]

(34) "...If the Roman government at the height of its power, and at the time when means of communication had been greatly improved, showed anxiety for the food supply of that Italy which was dominant in the Mediterranean world, it may be imagined that in the period preceding the great economic organization introduced by the Roman Principate the peoples of the Mediterranean region, peoples no one of which at the height of its power had controlled the visible food supply of the world so widely or so absolutely, had far graver cause for anxiety on the same subject, an anxiety such as would be, under

ordinary circumstances, the main factor, or, even under the most favorable circumstances possible in those ages, *a* main factor, in moulding the life of the individual and the policy of the state..."

Somewhat akin to hyperliteracy is would-be-literacy, affected by speakers attempting to emulate the verbiage of the hyperliterate. Thus consider:[7]

(35) "...FROM THE PRESIDENT:
As it is with most things, time takes its and everything is affected by it. Some things appreciate over time...fine art, diamonds and gold, truth in expression. This is due in part to honest acceptance, love and appreciation of their mere existence. I believe this unadulterated attitude toward these material things can be transcended into honorable organizations that colleagues are fundamentally attached to such as religion, political, fraternal and/or alumni.
The major adhesive factor in the appreciation of; that which you are fundamentally attached to and appreciate is what stands the test of time; that which you covenant amongst peers conjures lasting power and value; that which is viewed as significant to personal and fraternal identification is generally protected from blatant disfigurement derived from negligence or irresponsible complacency. And in being a major or minor adhered component the rewards therefrom are inevitably equal.
Value is maintained, it is handed over to the fittest by recognized and accepted organizational process for continual maintenance and prosperity. The board actively invites enthusiastic alumni to provide assistance in the maintenance and prosperity of the University of Maryland Architecture Alumni Chapter..."

9. Normativity and variation

The variation between oral and literate "performance" is but one dimension along which grammar may vary. Others are:

(36) Dimensions along which grammars vary:
(a) History: Older/obsolete vs. newer/current usage
(b) Age: Older vs. younger speakers
(c) Domain of use: Written vs. spoken language

(d) EDUCATION: Educated vs. uneducated speakers
(e) FORMALITY: Formal vs. informal style
(f) SOCIAL CLASS: High-status vs. Low-status speakers
(g) ETHNICITY: Majority vs. minority sub-cultures
(h) GEOGRAPHY: Regional, urban vs. rural dialects
(i) NATIVE PROFICIENCY: Native vs. non-native speaker
(j) INDIVIDUAL: This individual/family vs. that one

Most of these (36a-h) relate in one way or another to the difference between oral and written form.

Many linguists have fallen into the bad habit of denying the political, economical, social and educational usefulness of a standard literary and rhetorical register, just because it happens to have no compelling theoretical justification. Whatever the motivation for this peculiar socio-linguistic neutrality may be, its wisdom is rather questionable.

The usage of the older (36a,b), literate (36c), educated (36d), formal (36e), socially prominent (36f), urban (36h), native-speaking (36i), whether the majority (36g) or not, has always served as the basis for the prestige, literate, central communicative standard. In the main, this tendency is as true of pre-literate pre-industrial societies as it is of the modern industrial nation-state.

In a large, complex, technology-based society –especially one with considerable internal diversity and immigrant influx– the utter folly of denying the central socio-cultural role of a unifying communicative instrument is all too obvious to warrant further comment.

By the same token, however, the central role of the standard literate register should not require that we denigrate, deny the legitimacy of, or attempt to eradicate non-standard oral registers that are everybody's first language. This is where my notion of literacy as bilingualism comes into play.

10. LITERACY AND EDUCATION

When second language learning occurs naturally –informally, in a real communicative context, without explicit instruction– what is most commonly acquired is a variety of pre-grammatical *pidgin*. There are cogent theoretical reasons why this is so (Givón, 1990).

To counter the strong natural tendency toward pidginization, common-sensical classroom instruction endeavors to teach the grammar of the second language –at least to begin with– explicitly, consciously, analytically.

Explicit second language instruction has no recourse but to recognize the differences between the grammar of the first (L1) and second language (L2). These differences can be confronted head-on via *contrastive analysis*, looking at the two grammars side by side. Understanding the difference between the two systems helps teachers guide the student from one to the other.

One of the costliest fallacies of L2 classroom instruction is the pretense that L2 grammar can *only* be taught implicitly, contextually, "communicatively". It is a dangerous ideological fad whose time is long gone.

The cumulative weight of the discussion above suggests that contrastive analysis and explicit instruction in grammar is precisely what is needed in the early classroom teaching of literacy. Teachers must be made aware of the systematic nature of pre-existing oral grammar. They need to understand that it is neither garbled nor wrong nor offensive.

Understanding the nuts and bolts of oral grammar –the child's first language– is indispensable for guiding him/her toward the grammar of the literate standard. That is, guiding the child toward the successful acquisition of fluent, coherent, concise –and elegant– written communication.

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Notes

1. The Logical Positivists –Russell, Carnap and (the early) Wittgenstein– had of course preceded Chomsky in this compulsion for ordering the unorderly. Saussure's distinction between *langue* (the system) and *parole* (actual speech) is another predecessor. Chomsky has acknowledged neither antecedent, for reasons that are perhaps understandable. His peculiar Cartesian bent, for one (vis-a-vis the rabid empiricism of the positivists). His equally peculiar claim to mentalism (as against the structuralism of Saussure and Bloomfield).

2. "At whom the dog barks" by Lore Segal, *The New Yorker*, Dec. 2, 1990 (p. 45)

3. Elmore Leonard, *Unknown Man #89*, New York: Avon Books (1977).

4. See Chafe (1982, 1987, 1988a, 1988b, 1992), Chafe and Tannen (1987).

5. The oral text was pp. 1-3 of the transcribed life story of a retired rancher, approx. 56 years old, recorded in Bloomfield, NM ca. 1980 (Givón, 1983). The written-academic text was pp. 4-7 of Chomsky's *Problems of Knowledge and Freedom*, NY; Vintage Books (1971).

6. *The Encyclopaedia Britannica*, 14th edition; entry on Ancient Greece; cited in *The New Yorker* ca. 1988.

7. From a letter from Alumni Chapter President, Joe Quarterman, in *Maryland Architecture*, the newsletter of the University of Maryland School of Architecture Alumni Chapter; as cited in *The New Yorker* ca. 1990.

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