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ABSTRACT

Four issues of this journal contain articles, dissertation abstracts, reviews, remarks and rejoinders, conference reports, and announcements of publications and professional matters relating to linguistics and language research. The substantive articles contained in these issues include: "FIESTA--A Linguistics Text Tool" (E. Clay Johnston); "Distinctive Features" (Steven Marlett); "Combining Functional and Formal Approaches to Language" (Robert A. Dooley); "Reference Grammars" (Thomas E. Payne); "Endonyms and Exonyms" (John W. M. Verhaar); and "Language and the Deaf" (Steve Parkhurst, Diane Parkhurst). (MSE)

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NOTES ON LINGUISTICS

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From the Linguistics Coordinator

With this issue of *Notes on Linguistics* I would like to draw your attention to several publications from LINCOM Europa, all of interest to field linguists. LINCOM has, for several years, served as an information clearinghouse in the field of linguistics, particularly in data-oriented field linguistics of the type that would interest most readers of *Notes on Linguistics*. These publications have become an important source of information for field linguists, as well as good venue for publication of their data-rich materials on hitherto undescribed or underdescribed languages.

Languages of the world and linguistic news lines. U. J. Lüders, ed. LINCOM EUROPA, München. Subscription (not including postage), 10 issues (outside Europe) US $100 (Individual), US $146 (Institutions) , one-year subscriptions for institutions US $79. LINCOM EUROPA, P. O. Box 1316, D-8044 Unterschleissheim/München, Germany.

The 'Languages of the world' section of this periodical is billed as '...an international journal on language typology, genetic classification of languages, geographical linguistics and related topics', and the 'Linguistics News Lines' section includes news items on endangered languages, current linguistic research projects, reports on conferences, short book reviews, new approaches to linguistic theory, and a calendar of upcoming conferences.

Issue No. 7 (1993) of this periodical is a good example of the range of material one might expect. It is 90 pages, full European page size (29.5 cm x 21 cm), with densely packed type. Three articles (averaging 11 pages each) in this issue are: 'Diagnostic uses of typology' by W. P. Lehmann, 'Jacaltec Directionals' by Colette Craig, and 'Mbalanhu ... Pronouns' by D. J. Fourie. Four notes on current research projects (averaging one page each) cover topics such as: Mixed languages, etiological analysis, China Minority Language Research Centre, and a pragmatics and syntax project at University of Bremen. A four-page report on 'General Linguistics in Spain' (written in Spanish) was also included. Seven book reviews average 1.5 pages each and all are on works relevant to field linguistics: e.g. linguistic typology, endangered languages, or reference grammars of a specific language. The remainder of this periodical includes information about past and future conferences, publications, courses or seminars.

I highly recommend this periodical for SIL field entity libraries and linguistics consultants who can afford it.

Gunin/Kwini. By William B. McGregor. 1993. Languages of the World / Materials, 11. LINCOM Europa. Pp. 61. $11.50
Mbalanhu. By David J. Fourie. 1993. Languages of the World / Materials, 3. LINCOM Europa. Pp. 41. $11.50

These two short grammatical sketches are among the first of a series of LINCOM Europa publications entitled *Languages of the World / Materials.* The series as of this date includes similar short descriptions of over 100 languages already published or soon to be published. It describes itself as a venue for first reports of hitherto unsurveyed languages, as well as compact grammatical sketches of major languages or 'endangered' languages.

It strikes me that the scope of the sketches in this series quite nicely corresponds to the 'first report' many SIL language program teams do after a year or two of investigation and language analysis. Up until now many of these reports from SIL teams have simply been filed in entity files or microfiched, but not formally published. This *Materials* series may provide a venue for publication of many of these reports, considering that it would likely be several more years before a more comprehensive reference grammar could be published.

I would encourage linguistics consultants in SIL field entities to obtain copies of several of these sketches (LINCOM Europa, P. O. Box 1316, D-8044 Unterschleissheim/München, Germany)—there will likely be some sketches already available from each linguistic area. Where it is feasible the consultant could guide language program teams toward publication of such a document. In most cases SIL Grammar I syllabi (such as the syllabus compiled by Albert Bickford at the North Dakota SIL, and currently serving in the training of the majority of new SIL field teams), will be of sufficient breadth to guide production of such a sketch. In fact, the NDSIL syllabus seems to me to be ideally suited to this use.

The number of pages in these two sketches (42 pp. and 61 pp.) appears to represent the range at which the series aims. The publications are attractive laminated paperback issues, with small type for the prose description, but larger type for data. Neither of these sketches skimp on data.

Gunin is a Worrorran or Northern Kimberly (non-Pama-Nyungan) language of western Australia, closely related to Wunambal. The sketch was compiled on the basis of only a short time of elicitation and text gathering and analysis, but by an author familiar with languages of the region. Though the Gunin language was not previously described, publications do exist describing some of the related languages.

Mbalanhu is a Wambo dialect of central northern Namibia. Except for three short articles by Fourie published in local journals on aspects of Mbalanhu grammar, this sketch constitutes the first general report on the language.

Both sketches consist of five sections: Introduction, Phonology, Morphology, Syntax, Interlinear Texts. The introductions give information on the geographic and sociopolitical context of the languages, dialect information, classification, and information on collection of the data. The Introduction in the *Mbalanhu* sketch is only one page, with an additional full page map. The Introduction in the *Gunin* sketch is considerably longer—eight-and-a-half pages, and in addition to fuller explanation for the same categories as above, gives brief information on the sociolinguistic setting, recent history, and traditional culture of the Gunin people.

The phonology section of both works is a simple pre-theoretical presentation of phonemes and important suprasegmentals. The *Mbalanhu* sketch gives further treatment of the orthography, and the *Gunin* sketch gives greater detail on allophones and phonotactics.

The greatest portion of each sketch is the section on morphology, which deals with word classes and affixes. These treatments appear to conform to standards for the linguistic area. The *Mbalanhu* sketch, for example, gives considerable treatment to 18 noun classes and the ensuing agreement phenomenon manifested in the morphology. The syntax section in each work is brief (3-5 pages), giving and examplifying basic word order and typological correlates, a survey of clause types, and brief mention of coordinate, subordinate, and relative constructions.

Both sketches close with a short example (up to three pages) of interlinear text. (The *Mbalanhu* sketch also appends a 100-word list.) In neither sketch, unfortunately, is the language matter in the text divided into morphemes with morpheme-by-morpheme glosses. Given the degree of morphological description in the sketch, it seems to me that this should have been possible.

Throughout both works the tentative nature of the sketches is evident: 'The phonetic correlates of stress are not known for certain…' (McGregor, p. 22); Mbalanhu appears to be a pitch-accent… language…' (Fourie, p. 6);

'At this state is it not known whether these various possibilities are emically distinct…' (McGregor, p. 54); 'As far as could be established, the basic syntax does not differ from…' (Fourie, p. 34). This seems appropriate for 'first reports' like these.

Other publications from LINCOM

In addition to the two series previously mentioned, LINCOM Europa is now publishing several other series which will be of interest to readers of *Notes on Linguistics*. I'll list several of these with an example of each type:

LINCOM Studies in African Linguistics—e.g. *The lexical tonology of Kinande* by Ngessimo Mutaka (1994), language of eastern Zaire.
LINCOM Studies in Native American Linguistics—e.g. *Gramática muisca* by Angel López-García (1994), extinct language of Colombia.
LINCOM Studies in Theoretical Linguistics—e.g. *Thoughts on grammaticalization* by Christian Lehmann (1994).
Handbooks in Linguistics—e.g. *The languages of the 'First Nations': A comparison in ethnolinguistic perspective* by Stefan Liedtke (1994).
Linguistics Editions—e.g. *The Souletin verbal complex: New approaches to Basque morphophonology* by U. J. Lüders (1993).
Monographs—e.g. *Caucasian Perspectives: Papers of the Vth Colloquium of the Societas Caucasologica Europea*, ed. by George Hewitt (1992), languages of the Caucasus.
Linguistic Data on Diskette Service—e.g. *Na-Dene and other language groups*, (1994), languages of North America.

Our readers interested in Asia may note the paucity of references above to Asian languages. There are some sketches in the Languages of the World / Materials series from that area: Hezhen, Manchu, and Xibe (Tungusic, China); Nenets (Samojed, Uralic, Siberia); and Lhasa Tibetan, to name a few.

—David Payne

CONGRATULATIONS
to the following SIL members recently completing PhD's in Linguistics:

Dr. David Foris (WBT New Zealand, formerly Mexico Branch), Oakland University
Dr. M. Paul Lewis (Central American Branch), Georgetown University
Dr. Ruth Mason (Africa Group STA), University of Reading

FIESTA—A linguistics text tool

E. Clay Johnston
SIL—Project '95 Staff, Dallas

Most translators in SIL know that FIESTA[1] is a fast and powerful manuscript editor that has proven very useful in doing revisions and consistency checks on manuscripts such as a New Testament translation. I suspect, however, that few know about or use FIESTA for their linguistic analysis in the early stages of a language project where it is equally useful, if not even more applicable.

Field linguists typically collect and transcribe vernacular texts in their investigation. In addition, they spend a significant amount of time annotating these texts as a means of building a lexicon and gaining other linguistic insights. For this process, the SHOEBOX[2] program has become something of a standard within SIL and even in the wider linguistics community.

As the field linguists make lexical annotations and draw linguistic conclusions, however, they must not make the mistake of ignoring distribution data. They must confirm the meanings assigned to words and other linguistic units by comparing their usage in as many contexts as possible. Without this kind of distribution review, the meanings are suspect.

While the ability to provide printouts of this kind of distribution data from vernacular texts has been around for some time, FIESTA is the only tool I know that does it fast enough to be interactive. That is, when the analyst thinks he knows the correct annotation for a word, FIESTA can quickly

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1 FIESTA is a computer program for DOS computers copyright by the Summer Institute of Linguistics and available from JAARS Computer Service, Box 248, Waxhaw, NC 28173, or SIL Dallas Bookstore, 7500 W. Camp Wisdom Road., Dallas, TX 75236.

2 SHOEBOX is a computer program for DOS computers copyright by the Summer Institute of Linguistics and available from JAARS Computer Service, Box 248, Waxhaw, NC 28173, or SIL Dallas Bookstore, 7500 W. Camp Wisdom Road, Dallas, TX 75236.

show a concordance of the word in all its contexts (See Figure 1). The annotation can immediately be verified or questioned.

```
text        8 u di an`i tuluen ku sa medoo etaw diy`a sa langun balangan tan`a
text       10  yu ma d'e diy`a siini medoo etaw egpigtuu, en`u ka inumow i Nem
text       10  an`i mebaluy kiyu ma d'e sa etaw i H'esus Kelistu.
text       11 di, egsulat a diy`a keniyu i etaw tegeLoma eghiduwan i Nemula.
text       12 il`i di ma kiyu an`i kiyu sa etaw di.
text       15 u mediy`u d`o duen d'e medoo etaw neketiig denu sa kepigtuu yu d
text       21 l`u a diyan an`i dumuen dema etaw migtuu dan`a sa ketul`u ku ken
text       21 u ku kenagda, lag`a sa medoo etaw beken Hudiyu diy`a sa liyu men
text       22  ku diy`a sa langun balangan etaw, uwuy iya sa ukit ku egbayad s
text       23 n a diy`a sa langun balangan etaw, iling ka sa etaw tegesugud at
text       23 n balangan etaw, iling ka sa etaw tegesugud ataw ka sa tegetuduk
text       23 aw ka sa tegetuduk, iling ka etaw milantek ataw ka sa end`a mila
text       24 umegudon a ma diy`a keniyu i etaw tegeLoma.
text       25 si H'esus, en`u ka amuk duen etaw egpigtuu diy`a sa Tegudon, ili
text       25 u diy`a sa Tegudon, iling ka etaw Hudiyu taman sa etaw beken Hud
text       25 ling ka etaw Hudiyu taman sa etaw beken Hudiyu, mealukan da doo
text       26 pesulat, guwaen di, <<Iya sa etaw kumelal`u taman melugay sa eta
text       26 w kumelal`u taman melugay sa etaw migketiengaw diy`a sa kehaa i
text       27 tigtu pigtamayan di sa medoo etaw egbael medaet owoy end`a eg-ad
text       28 a kenagda sa melemu metiigan etaw.
text       29 h di, netiigan doo sa langun etaw kagdi sa tigtu Nemula 'ep^e da
text       30 `a mebaluy di amuk guwaen sa etaw end`a duen Nemula i.
text       34 naelan da 'eh^e egoh-egoh sa etaw melemu mematay ataw ka sa inet

Total lines displayed are 23.        Press ENTER to continue or F8 to EXIT
```

Figure 1. FIESTA concordance display

Advances in technology make using FIESTA in this way even easier. Windows[3] permits two DOS programs to run at the same time in different windows. Similarly, some field linguists now have access to more than one computer.

In either case, when annotating texts with SHOEBOX, it is possible to have FIESTA running at the same time with a vernacular text database. It is then a simple matter to jump to the FIESTA window (or other computer) and get a concordance of any word, affix, or phrase in the texts. In this way FIESTA provides almost instant distribution data to evaluate an annotation or analysis.

[3] Windows is a registered trademark of the Microsoft Corporation.

Obviously, the same kind of checking can be done while working with text translated into a vernacular language. To provide this sort of support, FIESTA must have the vernacular texts in a unique program-specific database. FIESTA creates this database from any plain ASCII text files such as those using Standard Format Markers. Also, with some up-front processing of the texts, FIESTA can build a database for interlinear texts created by SHOEBOX or IT[4]. FIESTA comes with a small program called REFORMIT that prepares interlinear texts for use by FIESTA.

FIESTA has special features for searching and displaying interlinear texts. One may limit a search to any field or search in specified fields. For example, we might want to look for every sentence in which the morpheme *ikam* appears in the morpheme representation line of annotation and is labeled *N* (noun) in the part-of-speech line. FIESTA will find and display each sentence that meets these criteria. It will flag with reverse video the items specified in the search (See Figure 2).

```
\rf kac024  16    kac024 16 kac024.db 016
\_no 00016
\lx  Tapos taytay        diritso    lalaen       sunod        -sunod  asta
\mr  Tapos taytay        diritso    lala -en     REDUP        -sunod  asta
\gl  then  begin.weaving immediate  weave-UP.NB  repetitively -follow until
\ps  SEQU  vt            V          Vt   -suf    dup          -V      END

\_no
\lx  magtapos      lala  ikam an.
\mr  mag   -tapos  lala  ikam an
\gl  AF.NB -finish weave mat  FMP,I
\ps  pre   -SUB    Vt    N    RMP

\ft Then work the beginning edge of the mat go straight to weaving
    continuing following until finished weaving the mat.
\dt 25/Mar/91

 Press <HOME> for first entry.              Press <PGUP> for previous screen.
 TO EDIT press corresponding item number ( 1, 2, ... ).
 OUTPUT SELECTED ITEMS to FILE press <f>;   to PRINTER press <p>.
Total lines displayed are 3.         Press ENTER to continue or F8 to EXIT.
```

Figure 2. FIESTA concordance display of interlinear text

---

[4] IT is a computer program for DOS computers copyright by the Summer Institute of Linguistics and available from JAARS Computer Service, Box 248, Waxhaw, NC 28173, or SIL Dallas Bookstore, 7500 W. Camp Wisdom Road, Dallas, TX 75236.

If needed, the user may define multiple search conditions. For example, in the suggested search above, a third condition relating to the part-of-speech line might be added. That is, FIESTA could be asked to show only those sentences in which ***ikam*** appears in the morpheme representation field, ***N*** (noun) appears in the part-of-speech line, and ***mat*** appears in the gloss field.

If the interlinear text has many fields, FIESTA permits us to specify the fields of data wanted. This reduces screen clutter.

In the example above, FIESTA would permit specifying just three fields for the interlinear display: morpheme representation, part of speech, and gloss.

FIESTA offers other variations of search criteria. It allows a search for sentences where conditions are met, not just in a single column, but in nearby columns of the interlinear display. In other words, a search may be made for every occurrence of a morpheme that has a ***V (verb)*** notation in the part-of-speech line within a specified number of alignment columns. This can help identify the linguistic environments of affixes, words, and phrases.

One might ask how important it is to search annotated texts. The searching described assumes that the annotations are important to the analytical task. That may or may not be true. If one's annotations are questionable they may actually impede an objective review of the distribution data.

Most of the search power of FIESTA is easier to use and just as helpful when applied to vernacular texts without annotations.

For those who want annotated text for illustrative support in a grammatical description, FIESTA provides for output of interlinear sentences that meet the search conditions. It can output to a file the entire set of sentences produced by the search or selected sentences from the set. Good success has been reached in outputting such sentences from FIESTA and using them in WORD[5] documents. Editing of the aligned annotations is difficult without column-select features such as those found in WORD.

In summary, FIESTA provides fast and flexible searches of vernacular texts, both annotated and plain. Speed is important because it permits the user to

---

[5]WORD is a registered trademark of the Microsoft Corporation.

interact with the data. That is, the concordance displays yield immediate insights toward drawing conclusions or refining criteria for further searches.

Have you added FIESTA to your linguistics tool box? ■

1996 GENERAL CARLA CONFERENCE

A GENERAL CARLA CONFERENCE is being planned for shortly before the 1996 Computer Technical Conference (CTC) most likely to be held at JAARS (Waxhaw NC) in the fall of 1996.

CARLA (Computer Assisted Related-Language Adaptation), also known as CADA (Computer Assisted Dialect Adaptation), is a process for computer-assisted parsing of text and adaptation of materials to related dialects or languages. Programs for this purpose are being used around the world by SIL members to prepare rough drafts of Scripture translations, improve understanding of morphology, produce interlinear text, and act as a spell checker on publishable material.

This general CARLA Conference is planned to bring together those who have worked on development of programs and those who train and consult users, as well as interested users of the program, international coordinators in relevant domains, and administrators in entities where the programs are being used. It will consist of presentations of papers or demonstrations by those attending, ensuing discussion, and resolutions. Papers/demonstrations are invited addressing the following issues:

A. CARLA & Computational Tools: Existing problems and proposed solutions; Application of the tools beyond adaptation, spell checking, and interlinear text; Vision for the tools of the future.
B. CARLA & Linguistics: Linguistic modeling (including linguistic modeling vs. orthography processing); Need for syntactic analysis, transfer, and/or synthesis.
C. CARLA, People, and Language Programs: Strategies for successful team dynamics (including program planning and/or interpersonal relationships); Managing source and target data files.
D. CARLA & Translation: Selecting good source texts; Translation checking.
E. CARLA & Training: CARLA tools in SIL training; Transferring the technology: national involvement.

Participants who receive SIL-funded travel assistance will be expected to present a paper or demonstration. Some participants will be funded by virtue of their being delegates to the CTC. Funding to assist with travel of other participants will be solicited from .3% Academic Conference travel funds, from entities participating, and from other budgets. Prospective participants are invited to submit one-page abstracts to: Andy Black (CARLA Guidance Team Chair); P.O. Box 8987; Tucson, AZ 85738-0987 USA. cc:Mail: Black, Andy. Internet: andy.black@sil.org

Abstracts are due by January 15, 1996. Notification of abstract acceptance will be sent by March 15, 1996. Entire texts of papers to be presented are due by May 15, 1996. Papers will be reviewed by a program committee and comments sent to the author by August 15, 1996. Revised copies of papers in "camera ready" form are to be submitted by October 15, 1996 to enable printing of the proceedings of the conference, including papers and any resolutions.

Distinctive features: A review and update

Stephen Marlett
SIL—Mexico Branch and North Dakota SIL Director

This brief article may be of interest to two groups. First, since it gives a brief review of distinctive features in phonology, it may be helpful to field linguists whose training did not heavily reinforce this topic. Second, since it reviews developments in feature theory during the past decade, it may be of interest to those who already are familiar with features but who have not kept up with recent proposals.[1]

1. **Introduction.** Probably everyone who has thought about the sounds used in language has realized that different kinds of gestures are utilized to produce those sounds. One utilizes various gestures, some simultaneously, including closing the lips, moving the tongue, and making the vocal cords vibrate. These properties have been referred to as the FEATURES of speech sounds. Some are distinctive in a language (such as voicing in English) because they are the minimal difference between meaningful units of that language, and some are not distinctive in a given language (such as aspiration in English) because they do not differentiate meaningful units in that language systematically.

For many linguists, features are considered to be the most basic elements of the sound system. They are to phonemes what atoms are to molecules. A water molecule is composed of hydrogen and oxygen. Similarly, a '**b**' is a composition of labiality, voicing and closure of the air stream.

This view of features is shared by linguists from a variety of schools of thought. Significant work on distinctive features was done by Trubetzkoy (of the Prague school) in the first half of this century, and these ideas were further developed in significant and influential ways by Jakobson. Hockett, a well-known structuralist, claimed that the 'ultimate phonologic constituents' were things such as 'momentary closure of the lips' (1955:43). Features have played a central role in all of the phonological research of the generative phonological tradition, and they have become a formal part of the theory, as shown below.

---

[1] I thank Ivan Lowe and Steve Parker for helpful comments.

2. **Why Use Features.** Why are features used in phonological descriptions? This is an important question since distinctive features (of the type described above) have not figured into the work of certain other influential people. For example, Bloomfield claimed that the 'phoneme is the minimum unit of distinctive sound-feature' (1933:79), and most analyses within the classical phonemic tradition did not use formal features such as [labial].

However, distinctive features are considered to be very important today. They are used in phonological descriptions in order to be able to express generalizations about phonological processes in a revealing way. For example, a change such as

(1) A vowel is nasalized before a nasal consonant.

is expressed easily if both 'n' and 'm' share a common property [nasal] that they do not share with other consonants like 'b'. If we took phonemes as the minimal phonological units of language, we might first group phonemes so that we label the phonemes 'n' and 'm' as belonging to the set of 'nasals', but 'b' as belonging to the set of 'orals'. This approach, however, still allows for many possibilities that are undesirable. But worse than that, it still does not allow a simple expression of the process stated above. If the rule in question were a rule of phonetic detail, how would we insightfully express the fact that sounds are changing from one set to another (new) set in the presence of another (third) set of sounds?

A second reason for using features such as [nasal] has been of central importance since the beginning of generative phonology (see Halle 1962). They have been used for evaluating the simplicity of alternative descriptions of a language. For example, consider rules (2) and (3):

(2) A voiced dental nasal becomes a voiced velar nasal when it precedes a voiceless velar stop.

(3) A voiceless dental stop becomes a labial nasal before a voiced velar stop.

If phonemes are the most basic elements of language, process (2) would be stated as:

(4) n becomes ŋ before k

and process (3) would be expressed as

(5) t becomes m before g

In such a theory, how is the obvious naturalness of rule (2) measured as compared to rule (3)? Rules of the first sort are found in many languages around the world, but a rule such as the second one has probably never been found. Nevertheless, rule (3) is no harder to write in prose than rule (2). One might attempt to describe naturalness by appealing to phonetic plausibility, but this is an appeal to something outside the formal theory. Feature theory seeks to provide an explicit measure of naturalness within the system itself. Rules that are phonetically plausible and commonly found should be easier to write (using less features, for example) than rules which are implausible. If they are not, then something is wrong with the theory. It is this latter point which keeps driving changes in feature theory, of which there have been many.

3. **How are Features Chosen?** There has been an on-going attempt to come up with a minimal and universal list of distinctive features for human language. More important than memorizing any such list is understanding **why** certain features appear on these lists.

If a sound which is adjacent to another sound takes on a property of that neighboring sound, we want to express that fact in a simple way. In current parlance, we say that a feature from one sound has SPREAD to the other sound. So rules of assimilation provide evidence for certain features. When a vowel becomes nasalized adjacent to a nasal consonant, we recognize that some feature has spread to that vowel. This feature is one that is shared by both consonants and vowels.

Another important reason for having a distinctive feature in an inventory of features is to be able to specify a class of segments as targets for a change. For example, the feature SONORANT distinguishes between vowels, glides, liquids, and nasals (the sonorants) on the one hand and oral stops, affricates, and fricatives (the obstruents) on the other.[2] In many languages, the class of obstruent consonants undergo changes as a class which the sonorant consonants do not. Such groupings provide motivation for shared features.

In earlier work within generative phonology, features were generally assumed to be binary. That is, a sound was specified either as [+nasal] or

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[2] This feature does not spread (by itself), so it must have other motivation than the first type given. The observation that it does not spread like [voice] spreads has stimulated some interesting proposals in recent years.

[-nasal], except at some level of phonetic detail (a level irrelevant to the description of phonological changes). Another possibility that is now being explored for some features is that they are PRIVATIVE, that is, that the feature is present for some sounds and simply not there for others. Compare the partial feature representations of '**m**' and '**b**' in (6) and (7):

(6) Binary:	m	b
	[+nasal]	[-nasal]
(7) Privative:	m	b
	[nasal]	

It has been argued that the use of privative features leads to a more restrictive (and hence more desirable) account of certain facts.

4. **How are Features Organized?** Much of the early work in generative phonology assumed that phonemes are simply unorganized bundles of features. Think of a circle (the phoneme) filled with [+labial], [+nasal], [+voice], etc., floating around inside of that circle. The written form that features took in phonological descriptions was a matrix, but the order of features within the matrix was irrelevant. Thus a '**b**' could be partially represented as

(8)
$$\begin{bmatrix} \text{-sonorant} \\ \text{+labial} \\ \text{-nasal} \\ \text{etc.} \end{bmatrix} \quad \text{or} \quad \begin{bmatrix} \text{+labial} \\ \text{-nasal} \\ \text{-sonorant} \\ \text{etc.} \end{bmatrix}$$

$$\text{or} \quad \begin{bmatrix} \text{-sonorant} \\ \text{-nasal} \\ \text{+labial} \\ \text{etc.} \end{bmatrix} \quad \text{or} \quad \begin{bmatrix} \text{-sonorant} \\ \text{+labial} \\ \text{-nasal} \\ \text{etc.} \end{bmatrix}$$

The order was simply not important since it had no formal status.

In the past several years serious proposals have been made for organizing features hierarchically, and we therefore now speak of the GEOMETRY of features (Clements 1985, Halle 1992 and much other work). One fact that has led to these proposals has been the attempt to make feature theory do the work that it should do. For example, a rule describing nasal assimilation, which is extremely common and natural, required several features in earlier feature theory since one had to change the feature [-labial] to [+labial], [-back] to [+back], etc. In a good theory this should not be necessary; simple rules should be formalized in simple ways. We should be able to say simply that nasals assimilate to the following consonant in place.

Suppose that features which specify the point of articulation are organized in a way such that they are related formally. Instead of three unrelated features, as shown in (9), we have the organization shown in (10).

(9) $\begin{bmatrix} \pm\text{labial} \\ \pm\text{coronal} \\ \pm\text{back} \\ \text{etc.} \end{bmatrix}$ $\begin{matrix} \text{(lip feature)} \\ \text{(tongue tip feature)} \\ \text{(tongue back feature)} \\ \end{matrix}$

we have the organization shown in (10).

(10) Place

[±labial] [±coronal] [±back]

This is very similar to what is actually proposed in current feature theory. The most common claim now is that place features are actually CONTENT NODES and that they are privative, as shown in (11).[3]

(11) Place

Labial Coronal Dorsal

The Place 'node' dominates all features (or feature nodes) that have to do with place of articulation; this gives the features a hierarchical arrangement. A complete assimilation to point of articulation can now be formally stated in a much simpler fashion. In such a rule the Place Node of one segment is being extended to serve for another segment as well. Whatever values are specified for the features under that node are shared by both segments. No features actually change; they are simply SPREAD from one segment to another. This is illustrated by the informal rule notation shown in (12),

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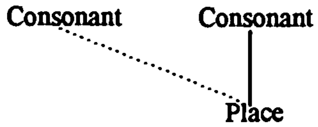
[3] Clements (1985) did not use these particular features but they have become widely used in later work.

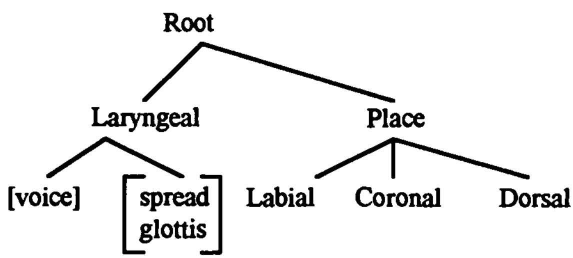
(12) Assimilation to Place:



where the solid vertical line indicates a pre-existing association, and the dotted line is the 'change' or new association effected by the rule.

Much of the current work in feature theory deals with finding arguments for locating features in this hierarchical arrangement. Some features do not interact with others and this is taken as evidence that they depend on a separate node. For example, a feature such as [voice] spreads independently of Place features, but sometimes aspiration and voicing spread or are dropped together. This provides evidence that a common node (the Laryngeal Node) dominates them both but does not dominate the Place Node. (The diagram in (13) is incomplete; other structure and features such as [continuant] have been omitted.)

(13)



Similar argumentation is taking place for tonal features as well (see Snider 1990 for one example).[4]

5. **Conclusion.** The hierarchical view of features that has been only sketched out here has been very influential in phonological theory during the past decade. It has been helpful in many phonological analyses making its way even into very basic descriptions of languages because of the insights it can provide. Goldsmith (1990) also discusses these concepts in connection with other aspects of current phonological theory.

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[4] Chapter 4 of Kenstowicz (1993) provides an excellent introduction to feature geometry theory.

Theoretical proposals like this constantly change as linguists analyze languages. Sometimes important data relevant to a theory (either confirming it or disconfirming it) is published and perhaps well-known. Other times, however, the most important data may be that which field linguists have not published. As we become aware of important advances like this in our field, we should encourage each other to consider the contribution that we can make.

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Snider, Keith. 1990. Tonal upstep in Krachi: Evidence for a register tier. Language 66: 453-474. ■

23rd North American Conference on Afroasiatic Linguistics
Salt Lake City, Utah—March 24-26, 1995,
(In conjunction with the Annual Meeting of the
American Oriental Society, March 26-29)

Subject will be relevant to any language of the Afroasiatic phylum (Chadic, Berber, Cushitic, Omotic, Egyptian, Semitic); research on areas such as structural analysis (semantics, syntax, morphology, phonology, phnetics), sociolinguistics, psycholinguistics, discourse analysis, historical linguistics, writing systems, etc.

26th Annual Conference on African Linguistics
University of California, Los Angeles—March 24-26, 1995

Studies in African Linguistic Classification. Keynote address by Professor Greenberg. State of the Art reports by invited participants. Special demonstrations of computer methods for linguistic comparison and reconstruction. **Contact:**
Tom Hinnebusch or Ian Maddie-son; ACAL-26; Dept. of Linguistics, UCLA; 405 Hilgrad Avenue; Los Angeles CA 90024-1543 USA.
e-mail: ACAL26@humnet.ucla.edu. Abstract deadline was Jan. 10, 1995.

31st Annual Regional Meeting of the Chicago Linguistic Society

General Session—April 20-21. **Invited Speakers:** B. Darden, K. Landahl, J. McCarthy, .J. Ross. **Parasession**—April 21-22. **Clitics: Invited Speakers:** S. Anderson, J. Kegl, J. Sadock, K. Safir. **Deadline for receipt of abstracts is January 30, 1995. Contact:** Chicago Linguistic Society; 1010 E. 59th St.; Chicago IL 60637. Phone: (312) 702-8529

Dissertation Abstracts

Constraint-ranked derivation: A serial approach to optimization

H. Andrew Black
SIL—Mexico Branch
Ph.D. University of California, Santa Cruz, 1993

Recent work in Generative Phonological theory has included a shift from a focus on ordered rules to well-formedness constraints. The nature of the interaction of these constraints, however, was left imprecise. Optimality Theory (Prince and Smolensky 1993b, McCarthy and Prince 1993, among others) provides a more rigorous treatment of constraint interaction. The set of constraints are ranked with respect to each other. Crucially, lower-ranked constraints may be violated in order to meet higher-ranked constraints. The output of the grammar is the representation that best satisfies the set of ranked and violable constraints; it is the optimal form. In a striking departure from traditional Generative Phonology, Optimality Theory pursues an approach that does not involve rules, but rather evaluates sets of candidates in parallel.

This dissertation set out to apply these insights of optimization to two sets of data and, in addition, to computationally implement the analyses. Such an implementation provides rigor and precision. Due to uncertainties about how to implement the candidate set generator, an alternative approach to optimization, Constraint-ranked Derivation, is proposed as in Chapter 1. It is much more in line with the traditional view of a derivation, where processes are applied sequentially to a representation. Constraints and processes are conceived of as distinct but closely interrelated modules.

Chapter 2 applies Constraint-ranked Derivation to some challenging truncation processes in Southeastern Tepehuan. Besides demonstrating the viability of this serial approach, it also includes an instantiation of the role of binarity in stem wellformedness. Both approaches to optimization are shown to handle the data well.

The intriguing perturbations of stress in Asheninca del Pichis discussed in the third chapter provide another case for testing the proposed approach to optimization. In addition to shedding light on the relation between footing and prominence, this chapter discusses how the two approaches fare in handling the attested optionality in the data.

Finally, the fourth chapter describes the results of submitting the Constraint-ranked Derivation approach to the rigors of a computational implementation. The success of the experiment to handle all crucial aspects of the Southeastern Tepehuan and Asheninca del Pichis data confirms the viability of this modular approach to optimization. ■

Quiegolani Zapotec syntax

Cheryl A. Black
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This dissertation describes and analyzes many facets of the syntax of Quiegolani Zapotec (QZ), a member of the sparsely documented Otomanguean language family. It should be of interest to descriptive and comparative linguists, as well as to theorists. Investigation of a broad range of syntactic constructions is purposely undertaken to examine how effective a small number of constraints can be in determining the full grammar of a language.

The analysis is presented under the Government and Binding Theory. The theoretical issues addressed include the determination of how many functional projections are necessary and their relative nesting in the clause structure. This is determined by looking at the three Ā-dependencies: focus, *wh*-questions, and negation. In each construction, the semantic operator must be fronted to its scope position by S-structure. This is shown to follow from the *Wh*-Criterion and the Negative Criterion (May 1985, Rizzi 1991, Haegeman and Zanuttini 1990, Zanuttini 1991), once these are parameterized to account for the motivation for and restrictions on *wh*-movement crosslinguistically. The attested interaction between the Ā-dependencies leads to the clause structure proposal of a single adjoined position for *wh*-phrases and focus phrases, above a NegP projection.

To derive the surface VSO word order, some movement is necessary in the hierarchical structure I assume. I contrast the two proposals of Verb Movement (McCloskey 1991, Koopman and Sportiche 1991, etc.), and Subject Adjunction (Choe 1986, Chung 1990). The Verb Movement account is adopted due to the V^0-to-I^0-to-Neg^0 movement seen in the negation constructions.

Within phrases, a structural division is seen between the [±V] phrases. The [+V] phrases all have left specifiers, but the [-V] phrases have right specifiers. Head movement is also tied to the [+V] cases.

Various other constructions are analyzed and integrated into this approach: coordination, anaphora, the internal structure of nominals, and the unique number marking construction within nominals. The proposed clause structure, the licensing requirements for $\bar{A}$-dependencies, the ECP, and QZ particular binding relations account for the various properties of these constructions, thus providing a coherent analysis for a large portion of the syntax. ■

The Buru language of eastern Indonesia

Charles E. Grimes
SIL—Indonesia Branch
Ph.D. Australian National University, 1991

Buru is an Austronesian (Central Malayo-Polynesian) language spoken by around 45,000 people on the island of Buru in eastern Indonesia. Typologically, the language can be characterized a predominantly head-marking language which has a basic constituent order in the clause of S V O (X), is prepositional, has modifiers following the head noun in an NP and the genitive occurring before the noun. This grammar of Buru attempts to bring the structures of the language to life by putting them in their functional, historical, and social contexts.

Analysis of Buru phonology [Chapter 5] shows the language to have seventeen consonants [C] and five vowels [V]. Canonical syllable types are (C)V(C). Critical to understanding Buru phonotactics and morpho-phonemics is the notion that certain segments on the CV-tier must be designated as *ambisyllabic*. Monomorphemic roots are distinguished between *lexical roots*, which are overwhelmingly composed to two syllables (with a few trisyllables), and grammatical *functors*, which may be one or two syllables. Content words (such as nouns and verbs) are based on lexical roots and carry stress on the penultimate syllable of the word. *Clitics* behave as phonological satellites to stress-bearing roots and do not effect stress shift. Productive *cliticization* is pervasive in Buru, dropping the final syllable and the word stress from a lexical root as it combines with a following lexical root. This process, along with several other morphophonemic processes involving verbal [Chapter 7] and nominal [Chapter 8] morphology yield a complex variety of derived syllable types. It becomes necessary to distinguish between the *phonological word* and the *grammatical word*, as there are many environments in Buru in which there is not a one-to-one correlation between the two [Chapter 6].

The pronominal systems are described [Chapter 9], arguing that Buru is developing from a split-S system toward a switch-reference system. Spatial and temporal deictics [Chapter 10] are concerned with definiteness and reference-tracking in discourse and are used in a variety of constructions. In NPs [Chapters 8 and 11], most nominal modifiers, including relative clauses, follow their head noun. Two constructions, the *possessive* and the *genitive*, are discussed in detail [Chapter 14]. Given the typological patterns of constituent order found elsewhere in the language, Buru is typologically unusual in having the genitive and the possessive occurring *before* the head noun [Chapter 17].

The Buru *clause* is composed of a Subject and a Predicate. The Predicate may be *non-verbal, semi-verbal,* or *verbal* [Chapters 18 and 19]. Verbs are divided into two basic types: in *active* verbs the syntactic subject is in the semantic macrorole of Actor; in *non-active* verbs the syntactic subject is in the semantic macrorole of Undergoer [Chapters 7 and 12]. Active verbs further subdivide into *active-transitive* and *active-intransitive*, depending on their unmarked valence of core arguments. Active transitive clauses are prototypically S V O (X) in their order, with non-core arguments being marked as prepositional phrases [Chapter 13]. Central to understanding verbal semantics, verb valence and derivational processes is understanding the inherent aspectual properties of the various subcategorizations of verbs [Chapter 7].

Buru has a rich variety of mechanisms for relating and integrating clauses [Chapter 20] through degrees of a variety of parameters which are more complex than a simple binary opposition of [±dependent], or [±embedded]. There is also a rich variety of mechanisms for putting elements of a clause into greater or lesser pragmatic prominence [Chapters 18, 21, 23]. A variety of different speech acts and styles are also described [Chapter 22].

The *grammaticization* of several different subsystems is examined. Tense-aspect-mood proclitics [Chapter 12], post-verbal auxiliaries [Chapter 12], and some prepositions [Chapter 13], are all shown to have developed through verb serialization.

Introductory chapters describe the purposes and mechanics of the study [Chapter 1], previous studies [Chapter 2], historical issues relevant to language use on the island [Chapter 3], and dialect geography and related sociolinguistic issues [Chapter 4]. Texts and additional supporting material are found in the appendices. The question of the linguistic classification of Buru is examined in the Epilogue, noting that there is very little published on the 150 or so languages of the Central Malayo-Polynesian subgroup, to which Buru is purported to belong. ■

An autosegmental theory of stress

Lawrence Raymond Hagberg
SIL—Mexico Branch
Ph.D. University of Arizona, 1993

This study argues for a theory in which metrical constituents are inherently headless and stress is autosegmental. Under this view, the distinction between tone languages and stress languages is characterized in terms of the respective domains in which autosegmental operations occur rather than by applying separate theories to tone and stress. This means that both types of prominence, although phonetically distinct, are derived via the same set of principles and devices.

Chapter 2 argues that, since stress is the only diagnostic for the presence of a metrical head, the latter is redundant and must be eliminated from phonological theory. Further arguments for the inherent headlessness of feet are cited from the theory of prosodic morphology (McCarthy and Prince 1990, Crowhurst 1992b) and from the facts of Yidin^y stress (Dixon 1977, Crowhurst 1992a). Next, stress is shown to exhibit the following autosegmental properties: stability (Bedouin Hijazi Arabic), morphemic stress (Spanish, Turkish, Tagalog) and the ability to float (Mayo, Tagalog). After comparing these and other properties of stress with general autosegmental properties, it is concluded that stress is an autosegment.

Assuming that feet can be either disyllabic, bimoraic or iambic (Hayes 1991), the above conclusion predicts the existence of five types of binary stressed feet. These are the left- and right-stressed syllabic foot, instantiated by Warao and Mayo, respectively, the left- and right-stressed moraic foot, instantiated by Cairene Arabic and Turkish, respectively, and the iambic foot, instantiated by Hixkaryana. The asymmetric nature of the iambic foot

is attributed to the Weight-to-Stress Principle (Prince 1990), which allows stress to be assigned directly to heavy syllables. It is shown, furthermore, that this principle predicts all and only the attested types of unbounded stress systems. Chapter 5 argues that stressless feet and unfooted stresses are instantiated in Mayo and Tagalog, and the theories of Halle and Vergnaud 1987a, b, and Hayes 1987, 1991 are shown to be incapable of accounting for these facts.

The autosegmental theory of stress advances phonological theory in three ways. First, it eliminates most of the principles and devices which up to now have been used only to describe stress, leaving only the abstract stress autosegment which is itself subject to the principles of autosegmental theory. Second, this approach makes it possible to attribute many of the apparent differences between stress and tone to differences in their respective domains rather than differences in their formal properties. Third, the autosegmental theory of stress facilitates the simple formalization of a number of stress systems with heretofore complex analyses, including Yidin^y, Mayo, Cairene Arabic, Turkish, Khalkha Mongolian, Capanahua and Tagalog. ■

Conference on Functional Approaches to Grammar
LSA Institute Summer 1995
University of New Mexico, Albuquerque—July 24-28, 1995

Organizing Committee: C. Craig, T. Givón, R. Tomlin, S. Thompson, P. Harder. **Goals:** To get together active exponents of all branches of the functionally-oriented linguists working on grammar, for presentation of research, exchange of ideas, and discussion on the goal, theory and methods of the functional approach to grammar. **Topics:** Cognition, meaning and grammar; Discourse function and grammar; Grammar and face-to-face communication; Grammar and text processing; Function-guided field work and grammatical description; Functional perspectives on language acquisition; Diachronic syntax and grammaticalization; Grammatical typology and universals; Methodology and quantification in function-based work; Grammar and socio-cultural context; Functionalist meta-theory. **Contact:**
T. Givón <tgivon@oregon.uoregon.edu> Abstract deadline was Nov. 1994.

Remarks and Rejoinders

Remarks on Karl Franklin's review of **Lexical matters** (*NOLG* 66, p. 48)

Rick Floyd
SIL—Peru Branch

I don't normally respond to things I come across in journals, but I was dismayed upon reading Karl Franklin's 'review' of *Lexical matters* (Sag and Szabolcsi, eds.) which appeared in *Notes on Linguistics No. 66.*

I have no quibble with honest disagreement over ideas, assumptions, and conclusions. After all, disagreement and discussion are crucibles for the refining of concepts. However, one party must understand what the other is saying before any real discussion can take place. And this was the glaring fault of this 'review'.

For example, Franklin lists a number of chapters which he found to be 'least useful'. The rationale behind this is presumably because 'the language and symbolism in these chapters are extremely complex and tightly packed—whatever that means. I can only assume that he didn't understand them, so any further comment was impossible. (By the way, it would have been helpful to have been given at least some indication of the general theoretical framework these articles were written in so we would know what we were being advised to reject.)

Franklin attempts a nod in the direction of 'positive' by stating that 'there are some conclusions... reached by authors of the remaining articles which are somewhat more readable'. But this sentiment is effectively tempered by what immediately follows: 'However, as you investigate them, try to read something from the *Far Side* between each chapter'. Now I myself am a died-in-the-wool Gary Larson fan, but I fail to see the purpose of such a comment, unless it's to say 'these articles are intelligible, but not funny, and are boring... in fact, so boring that anything you can do to keep you from falling asleep is recommended'.

Franklin's comments on what was dubbed 'useful' included only scattered quotations from the authors themselves and little that indicated to me that he had even understood what he had read, much less interacted with the material in any way beyond being able to identify what was 'readable' and what wasn't.

He concludes with: 'The title of the book... sounds innocuous enough, but then you can't tell a book by its cover'. Given his lack of understanding revealed elsewhere, such a comment betrays an unjustifiable attitude of condescension coupled with a sore lack of professionalism.

The upshot of all this is that I end up learning absolutely nothing about the book. That's beef No. 1.

Beef No. 2 is prompted by his statement: 'the book provokes me to maintain a sense of distance of "pure" linguistics and to concentrate on what is actually useful to people who live outside of universities'. The clear and insidious message being conveyed is that linguistic theory in general is irrelevant and impractical, not only to Franklin himself, but also to 'average field linguists' and certainly to the vast majority of the human race. Adopting the same attitude one could similarly ask: What does theology have to do with godly living? Projecting such anti-theoretical attitudes serves to prejudice the reader against gleaning any benefit whatsoever from any theory. I suggest that rather than distancing one's self from the theoretical, it would be more commendable and respectable to strive to understand the relevant insights and apply them. At bare minimum, recast the concepts into the local linguistic dialect of choice. After all, we in SIL DO do translation, don't we? If such attitudes are in any way typical of SIL, then it reflects poorly on SIL as an academic organization.

Rejoinder to Rick Floyd

Karl Franklin
SIL—International Administration, Dallas

I appreciate the opportunity to read the comments on my review (*NOLG* 66:9) of *Lexical matters* (Sag and Szabolcsi, eds.) and to respond. I don't believe that Floyd could have read the book, so he has had to criticize what I have said about the book, and the way I have said it, rather than point out what was good about the book. I confess to not having said much about the book and that I said it in what was an entertaining and less than somber mood. Further, I realize that my humor is ill suited for professional publications.

What I should have said is, 'Don't bother reading the book, even if you can understand and enjoy abstract mathematics and logic because it is not worth the effort'. I would like to see Floyd give ordinary field workers a lucid description of the book's contents with suggestions on how it will help them in any practical way. I accept the challenge that I did not understand much of what I read, but I did not want other field workers to think that a book with such a common title contained much of practical worth. I think I made at least that much clear.

Floyd claims that because I don't think 'pure linguistics' has much value to field workers that I am then biased against 'theory'. I don't see how a bias against one part of one thing (abstract linguistics) is a prejudice against all of that thing (theoretical linguistics).

From my observation, those parts of linguistics which are of the most value in SIL field programs are language and culture learning, text analysis, field methods, and lexicography. All of these have various theories associated with successful field programs, and these include personal growth, stress management, and the ability to involve and train national colleagues.

Finally, although I did waste my time 'reviewing' a theoretical framework that I did not control, I hope that others will not do the same. I certainly will not be tempted to 'review' works of this sort again, although people like Floyd should, so that people like me can learn what is of practical value in them. At least we both enjoy the *Far Side*.

Rejoinder to David Thomas on Remarks on 'Reflections on Isthmus Zapotec Inflection

David Weber
SIL—Peru Branch

In 'Remarks on "Isthmus Zapotec Inflection"' (*NOLG* 66:26), David Thomas disagrees with the last two sentences of my note 'Reflections on Isthmus Zapotec Inflection' (*NOLG* 64:20-27), which read:

> However the EWP [Extended Word and Paradigm] approach is a better solution because the rules express directly the regularities in the paradigm, as well as the exceptions to those regularities.
>
> The moral: we should not be content to simply list allomorphs.

This note is a reply to Thomas' objections, which seem to be rooted in a conception of linguistics as primarily a descriptive enterprise rather than an explanatory one.

The goal of linguistics is to understand Language—that is, the human capacity to learn one or more languages and to communicate therewith. In studying a particular language, the primary goal is to explicate the relationship between form and meaning. To simply list or chart complex forms with multiple meanings—when it is possible to further explicate the relationship between those forms or their parts and more specific meanings—is to stop short of pursuing the explanatory goal to its logical conclusion.

Thomas says that 'Elson and Pickett's chart presentation has the advantages of... highlighting the most important information (the neat simple semantic structure)...' I ask, 'What semantic structure?' One axis of the chart lists seven 'aspects' (which I grant are semantic), but the other axis lists three 'sets' of suppletive allomorphs. These have nothing to do with semantics. They are simply a descriptive contrivance for dealing with the allomorphy.

Thomas claims that the EWP 'rule presentation' is 'more abstruse [hard to understand—DJW] and lengthy'. If we were simply interested in description, we might value the chart more highly than the EWP rules. However, recognizing that the EWP analysis goes much farther in explaining the forms than the chart, then we must value the rules over the chart. To put it another way, both approaches adequately describe the forms, so if we were just interested in description then we would prefer the simpler. But if we are interested in explanation—in this case, in establishing a closer tie between form and meaning—as accomplished in the EWP analysis, then it is to be preferred, and linguists will either have to become familiar with the rule formalism or invent a kinder, equivalent representation.

Thomas cites length as a weakness of the EWP approach, comparing the third of a page occupied by the chart to the three pages of EWP rules, must of which is commentary and much of which, because of the rule formalism, is white space. He then later says that the chart should be supplemented 'with prose notes pointing out the partial regularities'. I wonder: if one were to discuss in prose all the partial regularities, would it be any shorter, or any clearer, than the EWP rules? I doubt it.

Thomas says that the EWP approach '[implies] by focusing on it, an apparently nonexistent relevance in the language beyond the few forms involved here'. I understand Thomas to mean the following: EWP analysis mistakenly leads one to think the partial regularities running through the paradigm are relevant for analysis, whereas—in Thomas' opinion—these are irrelevant because there is no evidence for them outside of the paradigm.

I challenge this view on various scores. First, I challenge the notion that, to be relevant, regularities must be found in a large number of forms. Is there some sort of threshold? I think not. Further, must they be found outside of some limited domain? No. Regularities may be few and restricted to a small domain, but nonetheless relevant for an analysis of that domain.

Second, the relevance of partial regularities for this analysis is apparent in the analysis itself, in the extent to which this analysis is able to correlate meaning and form (a correlation that is not captured by listing the forms in a chart).

Third, partial regularities are relevant to children learning a language. Do children learning a language like Latin learn dozens of paradigms of how nouns can be inflected for gender, number and case (and which paradigm to use for each noun): No. This is untenable because of the memory burden it would impose (particularly if we were to generalize to verbs, adjectives, articles, etc.) as compared with the ease and speed with which children learn such languages. And the errors they make along the way show quite clearly that they learn the partial regularities and generalize them to exceptional cases, something like English-speaking children saying 'goed' instead of 'went'.

Fourth, over time partial regularities may be extended and displace exceptional forms: 'wrought' was long ago displaced by 'worked', 'shown' is being displaced by 'showed', etc. And how could partial regularities be extended by speakers except that they are somehow perceived by them and incorporated into their grammars.

Thomas contrasts 'mathematical' with 'human': 'This [the chart form - DJW] doesn't result in a neat mathematical presentation, but language, like us, is human…' The implication that the EWP approach is in some way mathematical is hard for me to understand; I cannot imagine any particular sense in which EWP is mathematical. Be that as it may, the more significant issue is Thomas' implicit rejection of the proposition that human language is in any sense mathematical. Mathematics and linguistics (or, if you please—human language) strike me as having the following in common (to list just a few points that come to mind):

First, both treat an innumerable number of specific cases by simple, general principles (rules, or whatever one might wish to call them). For example, an innumerable number of different triangles can be characterized by a single definition (a three sided...) and general properties can be derived from this characterization (e.g., the area of a triangle is...). In the same way, and innumerable number of different active, declarative sentences can be characterized by a simple phrase structure grammar, and then properties of these (e.g. how to form the corresponding passive, question, etc.) can be characterized in terms of their grammar.

Second, both mathematics and Language are systems. Mathematical systems have axioms which determine their characteristics. Likewise, Language is a set of 'principles' (the reader may prefer to substitute another term) which shape the grammars children construct on the basis of the language data (the linguistic tokens) to which they are exposed.

Third, both mathematics and Language are intellectual, non-physical objects. They often 'map onto' physical reality, e.g., nouns may 'refer' to physical objects. Further, the intellectual object is often constructed on the basis of physical objects reflecting the abstraction; e.g., grammars are constructed in part based on the speech to which a language learner is exposed. And the discovery of the Pythagorean theorem was undoubtedly motivated by an observation of many right triangles.

Thomas concludes by saying, '...but language, like us, is human, often with regular habits, but sometimes irregular and better learned than reasoned'. Yes, to understand a linguistic sub-system we must see its regularity and—standing out against this regularity—its irregularity. (And the staunch empiricist who refuses to put irregularities aside long enough to let the regularities emerge condemns himself to a life of frustration.) This is precisely why we should be interested in theories like EWP: It gives us a precise, unified way to deal with irregularities, partial regularities and regularities. ■

Report on Irish Association for Applied Linguistics Conference

Language, education and society in a changing world

Eddie Arthur
SIL—Cote d'Ivoire/Mali Branch

The Irish Association for Applied Linguistics Conference was held at the Marino Institute, Dublin, Ireland on 23-25 June 1994. Roland Walker has reported elsewhere on the sociolinguistic sessions. I will report here on the Second Language Acquisition and the Translation sessions.

When it comes to language learning, the Academic world is primarily concerned with classroom teaching rather than the entirely self-directed approach adopted by many field linguists. Overall, I would identify two themes that ran through the papers which were of particular interest: Language immersion and Third language learning.

Language immersion. In a paper entitled 'How immersed are students in immersion programs?' Andrew Cohen showed that English speakers in Spanish immersion programs would often switch to thinking in English. Students thus being taught math in Spanish would regularly switch into English to work the problem—back to Spanish to write down the answer.

Third language learning. Claudia Zimmerman from Hungary presented a paper on teaching English in Hungary. It seems that many Hungarian students have benefited from being taught English through the medium of German rather than Hungarian. German is, of course, much more closely related to English than is the non-Indo-European Hungarian. I could not help but reflect that this is not unique to Europe. Students in Africa (and many other parts of the world) have been learning languages through the medium of a second language for years.

I found less of direct interest in the translation sessions, although there was an interesting discussion of how much the translator is responsible for trying to create literary conventions in the target language. This is the sort of thing that I find myself asking regularly in our translation project. ■

Report on Seventh International Conference on Austronesian Linguistics

August 22-27, 1994, Noordwijkerhout, the Netherlands

Steve Quakenbush, SIL—Philippines Branch:

The Conference (ICAL-7) was the first to be held outside the Austronesian language area, and was hosted by the Leiden University Department of Languages and Cultures of South-East Asia and Oceania.

Three parallel sessions ran throughout the week, with the session on Syntax claiming the greatest number of papers (40), followed by Diachronic/comparative studies (25), Sociolinguistics (22), and Phonetics/ phonology (20). There were also papers dealing with Morphology (11), Semantics (3), and Endangered languages (3). Of special interest in this last session was Donald Topping's paper, which summarized the successes and failures of the University of Hawaii in coordinated efforts to preserve and promote languages of the South Pacific.

Chuck Grimes, SIL—Indonesia Branch:

The keynote address, delivered by George Grace (Hawaii) described how his views of language have evolved over the course of his career, observing:

> As I consider the changes in my thinking, it seems to me that their common theme is a refocusing from questions about abstract structures to questions about the worlds of the speakers from whose utterances these structures have been abstracted.

After raising a number of questions about language that he feels we need to be exploring, he said:

> There is very little information available about the circumstances of language use in Austronesian-speaking societies... but it does seem to be clear from these [other] studies that if we are to understand the processes of linguistic change, we will need to understand more about the circumstances in which the language is spoken. And that is precisely the kind of problem that demands the study of languages IN SITU.

SIL participation included: Chuck Grimes (Indonesian-Maluku), René van den Berg (Indonesia-Sulawesi), Phil Quick (Indonesia-Sulawesi), Paul Kroeger (Malaysia), Steve Quakenbush (Philippines), Bob and Salme

Bugenhagen (PNG), Perry and Ginny Schlie (PNG), Ger Reesink (formerly PNG). Der Hwa Rau (Providence University, Taiwan) had Joe Grimes (Mexico) listed as a co-author of her paper. Overall I was quite pleased with the level of integration and interaction by SIL participants with non-SIL academics.

Participation was truly international with all parts of the globe represented (including two papers on Rapanui, Easter Island, which belongs to Chile). ■

Computational Linguistics Course and Workshop Summer 1995 at North Dakota SIL

This summer at the North Dakota Session of SIL (June 5-August 4, 1995), a course and workshop on Computational Linguistics will be offered. The workshop has been offered every summer since 1989. The course has been offered in 1989, 1990, and 1994. (It was previously referred to as 'Automated Parsing'.) The full course description is below. To enroll, contact the SIL Admissions Office, 7500 W. Camp Wisdom Rd., Dallas, TX 75236.

Anyone who is interested in exploring the possibilities of CARLA (Computer Assisted Related-Language Adaptation) for specific languages is encouraged to take advantage of this course and workshop. Come with data, such as verbal and nominal paradigms, texts in the source and target dialects, and literature about the language family. Preferably, some texts should be in machine-readable form before the summer session. Ideally, a linguist should come with the results of the manual experiment described in Chapter 3 of *STAMP: A Tool for Dialect Adaptation* by Weber et al., Dallas SIL. Those intending to participate are requested to contact the instructor before the summer session begins by writing to the address given below. If this is not possible, they should contact the instructor upon arrival at UND.

Linguistics 507—Special Topics: Computational Linguistics

This course and its associated workshop address fundamental linguistic issues that any morphological or syntactic analyzer tool must face. Solutions to these issues are provided using computational tools that are available within the public domain and that run under the MS-DOS and/or WINDOWS operating systems. The course also addresses the basic issues facing any attempt to use computational technology to do translation from one language to another (generically referred to as machine translation).

Morphological parsing: Every morphological parser must have a solution for morphotactics (which morphemes in well-formed words may co-occur with which morphemes and in what order) as well as a solution for morphophonemics (how phonological considerations affect the shape of morphemes). This course will illustrate these issues from a variety of languages and provide detailed solutions using the morphological parsing and generation tools AMPLE and STAMP. In addition, the 'analysis by synthesis' parsing tool called keCi and the 'two-level' parsing tool referred to as PC-KIMMO will be described and compared in terms of coverage, notational felicity, and computational efficiency.

Syntactic parsing: Syntactic parsers must be able to account for syntactic agreement, subcategorization, long distance dependencies, and grammatical relations. This course will give an overview of these issues from both English and other languages. The capabilities and limitations of pure context-free grammar parsers to adequately address these issues are discussed. The syntactic analyzer tool SIL-PATR is then introduced. This tool is a context-free grammar parser augmented with nested feature structures and unification constraints patterned after the PATR-II formalism. Detailed solutions to the basic syntactic issues are provided using SIL-PATR.

Machine Translation: Any system attempting to translate text materials from one language to another faces fundamental mapping and linguistic issues. This course will provide a brief overview of these issues and briefly discuss various approaches taken. In addition, the course will provide more extended discussion of a technique for closely related languages known as CARLA (Computer Assisted Related Language Adaptation). (This is also sometimes referred to as CADA—Computer Assisted Dialect Adaptation.)

The Workshop: (Linguistics 594.01 Research in Linguistics: Computational Linguistics): Participants in the associated workshop will be able to apply the computational tools to their own language data throughout the duration of the course. Consultant help will be provided (on a daily basis as staffing and enrollment permit). The goal is for the participant to make as much progress as possible in creating morphological and syntactic parsers for their language data. Opportunity is also available for setting up adaptation between related languages. (Note: the course and workshop cover much more material than the three-week CARLA workshops offered elsewhere.)

Instructor's Address (before May 19, 1995): Andy Black, c/o SIL Box 8987 CRB, Tucson, AZ 85738-0897; (602) 825-9544. Email: andy.black@sil.org (internet)

Report on Sixth Colloquium of the Societa Caucasologica Europaea Maikop,

June 26, 1992, Caucasus, Russia

Monika Höhlig
SIL—North Eurasea Group

The Societa Caucasologica Europaea, which started as a working group of scholars from the West who are interested in the study of the languages and cultures of the Caucasus, arranges a meeting for sharing and lectures every other year. This year was the first time a meeting was held in the Caucasus itself, due to the opening in the FSU. Maikop is the center of the Republic 'Adygheya', the homeland of the Adyghe people and one of the only recently established republics of the so-called 'mountain people of the Caucasus'. The organizers of the Colloquium, Professor Asker Gadagatl and other scholars of the Research Institute in Maikop, together with Adyghe government officials regarded the meeting as a great, prestigious event for the young republic. This was also expressed one night by the reception with the President of Adhygeya. The participants, over one hundred people, came from Western Europe, USA, Canada, Syria, Turkey and from all over the Caucasus. The organizers had arranged accommodations in a sanatorium near Maikop where the lectures were held.

Lectures were given for three days. There were two sections: 1. Ethnology and mythology focusing on the old 'Nart'-epic, and 2. Caucasian linguistics. I mainly attended the linguistic section and gave my paper with the title 'Particle use in the Abadzekh dialect of Adyghe'. Following the request of Professor Gadagatl and other Adyghe colleagues, I read my paper in the Adyghe language, which was highly appreciated by Adyghe attendants.

Almost more important than listening to papers was meeting representatives of different Caucasian academic institutions and sharing with colleagues. Another SIL team, Brian and Julie O'Herin, also attended the conference. ■

Report on Fifth International Congress of the International Association for Semiotic Studies (IASS)

University of California, Berkeley, June 12-18, 1994

Ian S. Mowatt
SIL—East Africa Group

Semiotics is commonly defined as the science or 'doctrine' (in the sense of a systematic study) of signs. A sign is anything—a word, a gesture, an object, etc.—that stands for something or someone. The general theme of the congress was 'Synthesis in diversity'.

One issue raised was the role of semiotics in anthropology. Some papers attempted to show how the field of semiotics can add another dimension to anthropological studies. Another issue was the role of semiotics in linguistics—one of which was of understanding the implicit attitude in a discourse.

My paper, 'Towards an integrative communication approach' was presented on the final Saturday. I was also the chairperson for that session. My paper attempted to work towards the development of an integrative approach towards better communication. The paper showed how—through the integration of the fields of communication studies, anthropological studies, and studies in psychology—a new approach to communication could be formed. The emphasis in the paper was centered on the use of nonverbal behaviors.

From attending the congress I was able to gain a much wider perspective on semiotics and to see that there are possibilities that studies in the field of semiotics may have something to contribute to the work of SIL. One area of possible interest is that of taking a semiotic approach of deconstruction and applying it to biblical exegesis. Another area is the study of the systems of natural languages. Currently there are studies being carried out in the area of writing systems. Semioticians are looking at writing as a sense of sound and the relationship between pictorial signs and alphabetic writing. For literacy the study of the interpretation of pictures and signs can also be valuable in considering the makeup of literacy materials. Semiotics also looks at the relevance of style in the presentation of materials and the interpretation of that material. ■

Report on Conference on Afroasiatic Languages

Sophia Antipolis France, 16-18 June 1994

Denise Perrett
SIL—Ethiopia Group

This was an extemely well organized conference. The thirty or so participants came from a wide range of countries and academic institutes. I was the only participant from SIL. The papers presented at the conference fell largely into two main divisions: those of syntax and phonology. One or two addressed semantic issues, one had a historical linguistics approach, and one was on the phonetics of Tuareg.

The syntax was exclusively a Government and Binding Theory approach and the topical interest area was determiner phrase analysis and the construct state. The majority were working on Arabic but a fair number also had command of Hebrew. Hagit Borer of University of Massachusetts and Abdelkader Fassi Fehri of the University of Rabat were two of the main speakers on the topics of syntax and lexicon.

On the phonology side there was John McCarthy of University of Massachusetts and Jean Lowenstamm of UQAM and Paris so there was both an autosegmental/templatic theoretical approach and some work in the Government Phonology approach of Kaye, Lowenstamm and Vergnaud, including the notion of vowel apophony particularly well worked out in the paper on Classical Arabic Verbal Morphology by Guerssel and Lowenstamm.

My own paper on the connective 'but' in Hadiyya did not fall into either of the syntax or phonology camps. It dealt with the semantics and pragmatics of the word 'but' presented in the Labelled Deductive System of Gabbay and Kempson which while dealing with semantics is at the same time thoroughly syntactic. ■

Report on 25th Annual Conference on African Linguistics

Rutgers Univesity, New Brunswick, New Jersey, 25-27 March 1994

Jim Roberts
SIL—Cameroon/Chad Branch

Rutgers University was host to an enjoyable 25th Annual Conference on African Linguistics (ACAL). The schedule was tightly packed—112 papers arranged according to topic into 31 sessions.

There were three invited speakers for the plenary sessions: two African scholars, Ayo Bamgbose (from Nigeria) and Florence Dolphyne (from Ghana); also Joan Bresnan, whose work in theoretical linguistics (Lexical Functional Grammar) has recently involved her in issues in Bantu syntax.

Bamgbose's talk reviewed the developments of the last three decades of research on African languages, providing his own perspective as an active scholar throughout the period. Since the 1960's there has been an explosion of interest in African languages; a synergy between primary language research and linguistic theory have spurred on and enhanced both of these enterprises. Issues such as tone analysis, vowel harmony, and serial verb constructions have been much cultivated in recent years.

Florence Dolphyne gave an update on her research on downdrift and downstep in Akan. Using instrumental evidence on the phonetic levels of pitch involved, she argued that we must carefully distinguish between downdrifted and downstepped High tones, for they are differentiated (at least in Akan) at the phonetic level.

Joan Bresnan's topic was 'Category mismatches'; she drew our attention to examples in English and Chichewa where grammatical functions (subject, object, predicate, etc.) are not realized by the grammatical categories (NP, PP, VP, etc.) to which they usually correspond. Such phenomena emphasize the flexible structure of Language, Bresnan pointed out, using a Lexical Functional approach.

Let me comment on two topics that caught my interest. Optimality theory, already a couple of years old, seems to be drawing more and more phonologists' attention. It was useful to see the theory actually applied to a variety of language data. Most of the papers that used this model, in fact, applied the theory to tone analysis, showing how to treat certain phenomena without using rules to produce the correct output. Language reconstruction and classification is another area that can be controversial. Both Lionel Bender and Christopher Ehret were present at the conference, representing two complementary approaches to the issue—approaches which have sometimes given conflicting results. Ehret is now applying his more radical approach in reconstruction, which sometimes relies on only one language per language group, to the Afro-Asiatic family.

SIL was represented at the conference by four presentations—Mike Cahill's 'Peaking at zero: null subjects and other peak indicators in Konni'; Myles Leitch's 'Tonal alignment in Babole: a High/Low asymmetry', Pete Unseth's 'Negation in Majang' and my own 'Nontonal floating features as grammatical morphemes'.

Finally, it is interesting to note which languages are capturing most of the attention, on the American scene, at least. In the papers presented at this ACAL, Bantu languages were by far the best represented (especially Swahili, Kinyarwanda, and Chichewa). After that came a number of Niger-Congo languages of West Africa, notably Igbo, Yoruba, Akan, and Fula. Noticeably sparse were papers on languages from the Afro-Asiatic and Nilo-Saharan languages families (combined, they had a total of 13 papers). Can SIL scholarship help make up for this shortfall? ■

Report on 24th Colloquium on African Languages and Linguistics

University of Leiden in the Netherlands, August 28-31, 1994

Keith Snider
SIL—Cameroon/Chad Branch

The 24th Colloquium on African Languages and Linguistics is held annually and is hosted each year by the Vakgroep Afrikaanse Taalkunde (Department of African Linguistics).

The organizers of this year's conference, Suanu Ikoro and Maarten Mous, chose to devote a special session of the conference to the topic of *pragmatic particles* ('little words that express the speaker's attitude towards the utterance'), and invited contributions on this topic in their 'first circular'. This invitation resulted in seven papers on the topic which were then grouped to form the first two sessions of the conference. In all, some 37 papers, mostly descriptive and covering practically all areas of African linguistics, were read to some 60 conference participants.

SIL was well represented this year with eight members present, six of them presenting papers: Regina Blass, Robert Carlson, Connie Kutsch Lojenga, myself (Keith Snider), Frankie Patman, and Doris Payne. Robert Hedinger and Joyce Carlson also attended.

Over the years that I have been associated with this conference it is interesting to note certain changes. In particular, the ratio of papers in French to papers in English has been steadily rising so that this year approximately one quarter of the presentations was in French. It was also nice to see a couple of presentations from former communist countries (Russia and Czechoslovakia), something one did not see before the demise of communism in eastern Europe. I found most of the papers interesting and the conference in general to be very worthwhile. For me the value of a conference, however, lies not so much in the quality of the papers presented, but rather in the opportunities the conference affords for establishing and furthering relationships with other colleagues working in the same field. ■

Reviews

University College London working papers in linguistics, vol. 1. Robyn Carston, ed. 1989. London: University College London.

Reviewed by John M. Clifton
SIL—Papua New Guinea and North Dakota SIL

This volume of papers represents work in progress by post-graduate students and staff of the Linguistics Section of University College London. Most of the 18 papers in the volume deal with topics in syntax. Nine of the papers in the first section are written within the framework of Relevance Theory (Sperber and Wilson 1986) while a tenth touches on Relevance Theory. In the second and third sections, five papers deal with topics in Government and Binding Theory, and two discuss computer implementations within the theory of Word Grammar (Hudson 1984). A final paper deals with challenges to Fodor's claim (1983) that the processing of grammatical structures does not and cannot make use of contextual information.

The papers written within Relevance Theory seem to be most widely applicable to linguistic field workers. They also open a number of areas of inquiry not generally considered by field workers. Therefore, this review is limited to a consideration of some of these papers.

Probably because Relevance Theory (RT) is not widely known, most of the papers attempt to be self-contained, explaining aspects of RT crucial to an understanding of the particular paper. Space constraints, however, unavoidably make these summary statements terse. To get maximal benefit from these articles, it is suggested that most of Wilson and Sperber (1987) be read before tackling the papers in this volume.

As many researchers have shown, intonation is much more complex than the simple 'declarative sentences go down and yes-no questions go up' statement that characterizes many of the linguistic descriptions I have seen. Yet attempts to isolate the 'meanings' associated with intonation have generally proved full of difficulties. In 'The Relevance of Intonation?' House argues this is because intonational patterns do not have meaning per se, but instead serve to differentiate foreground and background information. Within RT, the background information serves as the context in which the new foreground information is interpreted. In this framework, all types of 'intonational "meaning" are recoverable using pragmatic rather than decoding processes' (p. 15). House mentions in passing that intonation can be more or less conventionalized within a particular style of speech. It would be interesting to see if this variability exists between different languages as well.

In 'Relevance Theory and the Meaning of the English Progressive', Zegarac discusses the use of the progressive tense to imply reproof in *The baby is always crying* or insincerity in *John is being polite*. Zegarac claims that while the simple present (e.g., *The baby always cries*) refers to a property, the present progressive refers to an 'instantiation' of a property. This implies in turn that the speaker is personally related to the situation. According to RT, if a speaker uses the progressive there must be a desire to highlight the speaker's experience as opposed to the fact that the property exists. The context in which the statement is made will shape which overtones are added by the hearer.

The only paper in this section devoted to a language other than English is 'Pragmatic effects of coordination: The case of "and" in Sissala' by Blass (1990), who works with SIL in Burkina Faso. It is a welcome contribution since it shows RT is applicable in field work where the analyst is not a native speaker with native speaker intuitions. Three different conjunctions are used in Sissala, one for conjoined sentences, one for conjoined verb phrases, and a third for all other conjoined constituents. Sometimes speakers use conjoined sentences when they could have used another conjoined structure. In these instances, it is implied that the second conjunct is unexpected. Blass claims this implication arises from a pragmatic, not lexical, source. Furthermore, the implication receives a natural explanation within RT. (Those interested in this article will probably also be interested in Blass (1990), reviewed in Hohulin (1993).)

Clark discusses sentences like *Come one step closer and I'll shoot* in 'A relevance-based approach to "Pseudo-imperatives".' There are two apparent problems with such 'pseudo-imperatives'. One is that although they are syntactically imperative, they seem semantically conditional (e.g., *If you come one step closer, then I'll shoot*). The second is that in some cases the speaker may want the hearer to obey (e.g. if the speaker has a camera), in some cases the speaker may not want the hearer to obey (e.g. if the speaker has a gun), and in others the speaker may not care what the hearer does.

Clark develops a previously proposed RT analysis of imperatives in which imperatives can be used either descriptively (*I think you should come one step closer*) or echoicly (*You think you should come one step closer*). A third interpretation presented by Clark is *You might (at some time) want to come one step closer*. These differences account for the different interpretations; this general approach also accounts naturally for the apparent conditional semantic interpretation.

In 'On verbal irony', Wilson and Sperber modify their earlier (Sperber and Wilson, 1981) analysis of irony. In their view, irony is not simply 'meaning something different from what one says'. Instead, an ironic statement is one in which the speaker echoes an interpretation, literal or nonliteral, of 'an implicitly attributed opinion, while simultaneously disassociating herself from it' (p. 102). This disassociation allows the overlays of scorn, ridicule or disapproval. It also allows for ironic understatements, quotations and interjections, in which the meaning is not the opposite of the words uttered. Wilson and Sperber further argue that the recognition of irony requires the hearer to interpret the ironic statement as an echo of an opinion with which the speaker is disassociating herself. This is possible only if the contextual effects of such an interpretation are understood by the hearer.

Pilkington, in 'Poetic effects: A relevance perspective,' discusses the interpretation of poetry in general, and of poetic metaphors in particular. Pilkington ties poetic interpretation to the hearer's encyclopedic knowledge associated with individual words. In the case of poetry and metaphors, this encyclopedic knowledge frequently sets up contextual implications which are mutually contradictory. These, in turn, push the hearer into 'deeper' analyses in which the implications are not contradictory. An implication of this, not developed in the article, is that a given interpretation is dependent on the hearer's encyclopedic knowledge including the range relevant to the poet's intentions. This, of course, is not necessarily the case, especially when poetry is being interpreted cross-culturally.

Other articles dealing with RT are SIL member Gutt's presentation of a general theory of translation in 'Translation and relevance', Furlong's analysis of metonymy in 'Towards an inferential account of metonymy', and Groefsema's analysis of the processing of speech in 'Relevance: Processing implications'.

In general, the articles in this volume written within RT deal with a variety of issues in pragmatics that field workers would do well to consider in their research.

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The Celtic languages. By Donald MacAulay. 1993. Cambridge Language Surveys. New York: Cambridge University Press.
477 pp. Hardcover $95.00

Reviewed by Karl Franklin
SIL—Academic Training Programs Coordinator, Dallas

Quite apart from the excellent grammatical and phonological sketches, this book provides a fascinating perspective on the sociolinguistic factors which have favored both language maintenance and demise within the six modern Celtic languages. Four of these, Modern Irish, Scottish Gaelic, Welsh and Breton, represent living communities and the other two, Manx (since 1974) and Cornish (since 1977), are no longer living communities but still represent language interest and revival. However, the classification of someone as a 'native speaker' of a Celtic language is rare, as overwhelmed as they have been by English or French (in the case of Breton).

The editor of the book, MacAulay, provides a sketch of the Celtic languages in chapter 1. He describes the early dominance of the Celts in western Europe and southern Britain before the end of the first century AD. For an undetermined period of time there were varieties of Continental Celtic which died out by AD 500, and Insular Celtic which survived. In each case the surviving language communities are on the peripheries of states with other majority languages.

Celtic is a branch of Indo-European although, beyond that fact, there are differences of opinion about its exact place in the Family. Proto Celtic, for example, has special relationships with both Italic and Germanic. Many words common with English and French, on the other hand, are mainly due to social contact.

The similarity of the Celtic languages can be seen from the following pronouns:

	Irish	Manx	Gaelic	Welsh	Cornish	Breton
1SG	*mé*	*mee*	*mi*	*mi*	*my*	*me*
2SG	*tú*	*oo*	*thu*	*ti*	*ty*	*te*
3SGM	*sé*	*eh*	*e*	*ef*	*ef*	*en*
3SGF	*sí*	*ee*	*i*	*hi*	*hy*	*hi*
1PL	*sinn*	*shin*	*sinn*	*hi*	*ny*	*ni*
2PL	*sibh*	*shiu*	*sibh*	*chwi*	*why*	*c'hwi*
3PL	*siad*	*ad*	*iad*	*hwy*	*y*	*i/int*

Typologically Celtic languages are VSO and, as expected, the adjective follows the noun in the noun phrase and there are prepositions. In each description of a particular language the author gives an historical and social overview followed by a description of the syntax and morphology, phonology, and morphophonology.

Chapter 2, by C. O. Dochartaigh reports that the nonattainment of literacy was partially due to the failure of the Reformation in the country and the subsequent lack of a religious tradition which read the Scripture (p. 21). Irish still is represented by the poorest and least privileged section of the country. Despite the recognition of Irish as the first official language of the constitution (p. 26) it has no rights granted and it has become of symbolic rather than practical value.

There is one weekly newspaper, some monthly magazines, one radio frequency, and one TV channel that use Irish. In respect to the radio, it is broadcast in Irish on but one frequency only four percent of the time. The one TV channel that is devoted to Irish has sixty percent of its programs from overseas. In recent years a standard orthography has been proposed. There are probably about 70,000 speakers in the Irish-speaking districts and perhaps a total of 100,000 in the whole country (pp. 22, 26).[1]

The coverage on Irish is the second longest in the book, almost 90 pages, and includes these topics on the sentence alone: simple and complex, parataxis and hypotaxis, elliptical, affirmative, interrogative, negative, impersonal and passives, 'being' (existential, classificatory and equative), locational and possessive, aspectually marked, complementation, modals, and topicalization.

Irish has 21 consonants either with palatalization or with its absence, and six vowels, all of which occur as lengthened, as well as two diphthongs and three degrees of phonetic stress.

Chapter 3 by R. L. Thomson is on Manx, which was spoken on the Isle of Man in the middle of the north Irish Sea. The language was unwritten until about 1610 when the Anglican Book of Common Prayer was translated by John Phillips. During the late eighteenth century the use of Manx declined until the last native speaker died in December 1974. Thomson lists 21 consonants, most with palatal variations and eight vowels for Manx.

Chapter 4 by D. MacAulay, the editor of the book, is on the Scottish Gaelic language. Between 1020 and 1981 the Gaelic language has receded to the west of the mainland to the extent that it is now found primarily in the westernmost Scottish islands. Historically, the authorities of Great Britain have had negative reactions to the Gaelic language and as a result the Bible was not translated into it until 1767 (the New Testament) and 1801 (Old Testament). However, the translation of the NT gave the language status

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[1] This is a lower figure than that given by B. F. Grimes, ed., in *The ethnologue: Languages of the world*, 12th edition, 1992:463-464. Grimes cites M. Stephens (Linguistic minorities in Western Europe, 1976), who states that there are 120,000 speakers who use Irish for everyday purposes and that, according to the 1971 census, there are 789,429 total speakers including bilinguals.

and a written corpus to reinforce oral language skills and vocabulary (p. 145). In fact the Gaelic Bible has been the main agent for literacy (p. 148).

There is one periodical entirely in Gaelic, three newspapers with Gaelic features, some BBC broadcasting, and two TV programs each week. There are about 80,000 speakers of Scottish Gaelic (p. 145).[2]

Scottish Gaelic came to Scotland by immigrants from Ireland but it has never been the sole language of the country. There are still some speakers in Nova Scotia where, beginning in 1773, there was a strong immigration and language use. However, the language has had no status and became associated with backwardness and poverty.

The coverage of Scottish Gaelic occupies some 112 pages of the book. The section on morphology is extensive with accounts of: countability, animacy, gender (all nouns are masculine or feminine), number, case (nominative, genitive and dative, declensional classes (eight types), pronouns, person, and verbs. The verb structure is generally prefix + stem + suffix and stems are classified as stative or dynamic, finite or nonfinite, definite or indefinite, and dependent or independent. Tense is a parameter of the latter two dimensions in the present and past. There are also descriptions of adjectives and their classes, adverbs (of inner place and inner time), and compounds, according to their derivational nature and affixation.

There are some 21 (or 22 with dialect considerations) consonants, with full range of palatalization, as well as aspiration of the stops. Nine vowels are listed by MacAulay, each which may be lengthened. In fact in some dialects there are three degrees of length postulated (p. 232).

Chapter 5 by A. R. Thomas describes the Welsh language. It was once spoken extensively in mainland Britain but the advent of the Saxon incursions in the medieval period led to its survival mainly in nonurban areas. In fact 'it is probable that the language would not have survived but for the translation of the Bible into Welsh in 1588, providing both a symbol of prestige and a model for standard public oratorical usage which persisted until the second half of the second century' (p. 253). The Welsh Language Act of 1967 granted it an equal status with English, and bilingual schools

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[2] Grimes (1992:490) gives the figure of 88,892 speakers including only 477 monolinguals. Her figures on speakers in Canada is 5,000.

have been a tool for language planning and maintenance (p. 257). There have been a number of factors which have led to the decline of Welsh: 1) the decline of its use in religious observance with a concomitant loss of prestige; 2) mixed language marriages; 3) no family unit to transmit the language, and 4) no identifiable 'community' of Welsh speakers. Still, the radio is well established with a number of children's programs and an all-Welsh TV channel (p. 259). There are said to be a half million speakers of Welsh (p. 253).[3]

Welsh has 23 consonants with a major contrast between tense and lax as well as seven vowels, all excect the midcentral have long and short variants. The plosives, fricatives, affricates, and nasals occur at labial, alveolar, and velar points of articulation. In addition there are also palato-alveolar and glottal, as well as a resonant alveolar lateral and an alveolar tap /rh/.

Chapter 6, also by Thomas, is on Cornish which became extinct in December 1777. It was originally a dialect of British and was closely related to Welsh and Breton (a British dialect). There were 21 consonants, with plosives, fricatives, nasals, affricates, a lateral, and a trill. The predominant positions of articulation were labial, alveolar, and velar, with one sound as a palato-alveolar and one glottal. There were six vowels with evidence of length contrast.

Chapter 7 by E. Ternes describes the Breton language which is now spoken exclusively on the European continent. It has the greatest number of loan-words among the modern Celtic languages with significant numbers from Latin and French, as well as some from English. Since 1968 there has been a remarkable revival in the appreciation for and use of Breton and it may be, at present, the Celtic language with the greatest number of speakers (600,000, p. 374) although French authorities ignore the existence of minority languages in the country (p. 376)[4]. It is therefore curious to see how Breton has survived in that it has the lowest social prestige and the least official recognition of the living Celtic languages.

---

[3] This is about the same as the figure given by Grimes (1992:491), who lists 575,102 speakers for Welsh, including 32,700 monolinguals.

[4] According to Grimes (1992:454), there are 500,000 speakers of Breton, but 1,200,000 know it but do not use it regularly. Additionally, there are 32,722 speakers in the USA (1970 census).

From the middle of the fifteenth century on, there have been literary productions in Breton. Most are religious: lives of Saints, mystery plays, Passion plays, and so on (p. 374). In modern Breton there are no daily newspapers, weekly journals, and not more than an average of half an hour of radio per day, and about half an hour of TV per week.

There are twenty consonants in Breton and seven vowels, each which may have contrastive length and nasalization (but not both at the same time).

The Celtic languages provides an excellent description of each language and the historical and sociolinguistic accounts of each language provide very useful material on language maintenance and language death. ■

The English language: A historical introduction. By Charles Barber. 1990. Cambridge: Cambridge University Press. Pp. xii, 299. Hardback $49.95, Paperback $15.95

Reviewed by Greg Morris
SIL—International Linguistics Department, Dallas

Being a student of linguistics and a native English speaker, I expected this book would be fun and interesting to read. It did not disappoint me. In this work, Charles Barber has constructed a rich and thorough documentation of the history of English from its Indo-European beginnings to the present day including predictions for the future. Each page is replete with facts and 'English trivia'. There are plenty of informative examples throughout.

Chapter one is a basic introduction to the study of language for those who haven't had any linguistics. The chapter is well organized and easy to read. It continues, step-by-step, in a logical progression through the basic concepts and terminology of phonetics, phonology, morphology, syntax, and grammar.

Chapter two deals with language change using a passage from Luke chapter 15 translated into English at four different times in history. Barber presents this passage first from a 1961 translation, then from the King James Bible of 1611, followed with a translation from John Wycliffe circa 1384; and finally from a manuscript dating back to before the Norman conquest of England, around the beginning of the eleventh century. With each passage the author points out the similarities and differences highlighting the changes that took place in English between these time periods. Barber ends this chapter with a look at the concept of language families, leading him into chapter four, 'The Indo-European languages'.

From its Indo-European ancestors, Barber traces the development of the English language through its Germanic roots, into Old English, through the influences of the 'Norsemen and the Normans', into 'Middle English', then 'Early Modern English', 'English in the scientific age', and 'English as a world language'. He ends with a look at 'English today and tomorrow'.

The author's stated objective for the book is to be an 'introductory textbook for all students of the English language, and essential reading also for students of linguistics and social studies' (Barber, i). While the introduction to language in the early chapters is basic enough for even the most beginning student of linguistics, it does not adequately prepare the reader for the discussion that follows. The reader who is not 'up on his terms' (e.g., inflection, genitive singular, dative plural, and perfective tense), will find these passages to be slow reading. Since it is meant to be used as a textbook in conjunction with lectures and instruction, this is acceptable.

Barber's style is easy to read and fits the topic. The chapters are coherent. Examples used are specific and from actual English texts.

This work has many strong points. One of them is content—Charles Barber has filled these pages with a wealth of knowledge and history. Another strong point is the generous use of illustrative text and examples, without which even the most fascinating of subjects would be dry. Another strong point is the logical manner in which Barber ordered the information. This made the material quite understandable and accessible.

My main complaint with the book is that, although Barber introduced the phonetic symbols in chapter one, he did not make use of them in his examples throughout the rest of the book. The examples, especially from early English, that were used to illustrate sound changes that took place in English would have been clearer if, alongside the old spelling of the word(s), he would have added a phonetic transcription telling how they were considered to be pronounced. As it was, it was difficult to pronounce these examples. Thus, it was difficult to understand the sound changes which he was trying to illustrate..

Grammar in interaction: Adverbial clauses in American English conversations. By Cecilia E. Ford. Cambridge: Cambridge University Press. 1993. Pp. 165.

Reviewed by Duane Reiman
SIL & University of Texas, Arlington

In *Grammar in interaction* Cecilia E. Ford claims:

> ...Even though interactional language use outweighs all other types of language use, the analysis of English discourse within linguistics has tended to concentrate on monologue data and to neglect conversation... If we hope to gain an understanding of how grammar emerges and changes with use... we must... look more seriously at language in interaction (p. 1).

Ford gives us such a look by studying adverbial clause usage in connected, contextualized English discourses, and also accomplishes a secondary goal of demonstrating 'the usefulness of conversation analysis as a tool for understanding the emergence of grammar in interaction' (p. 1).

Some of the basic principles and findings drawn from conversation analysis include:

> *The turn taking system*—a set of principles accounting for the smooth transfer of speakership across parties in interaction.
>
> *Participants as sources of information*—context and participant talk as sources for interpreting the conversation itself.
>
> *Sequential context*—conversations as structured sequences of turns.

Ford also introduces the general use of adverbial clauses in English discourse, using precedent research from monologue data as a foundation for her research in conversation.

With this as background, Ford begins her analysis in chapter 2: 'An overview of the conversational corpus', where she provides a brief account of her database and its distributional features. This lays a detailed, statistical foundation for chapters three through six.

Chapters three through five divide the conversational use of adverbial clauses into three basic groups: initial adverbial clauses, final adverbial clauses in continuous intonation, and final adverbial clauses after ending intonation. She presents the salient features of each in application to conversation analysis and looks at their patterning with their occurrence as conditional, causal, and temporal clauses.

Chapter six takes a look at the placement and function of these different clause types, highlighting the seeming evidential contradictions to the general principles given in the previous chapters. Chapter seven provides a summary of conclusions and findings from the study, as well as their relevance to other areas of linguistic research.

Stylistically, while some of Ford's conventions of data transcription are difficult to follow, the methods used are nonetheless efficient and practical. The crisp and concise explanations of these transcriptions make up for the limitations of the transcription style. Ford clearly and logically presents her material. A healthy amount of examples were used, effectively demonstrating her points but not drowning the reader in redundant or extraneous material.

The data is limited to natural conversation, but its distribution seems heavily weighted to conversations between college-age speakers. Her approach is most directly a surface-structure constituent analysis, and this works well for the descriptive nature of her study.

A manual of intensional logic. CSLI lecture notes No. 1. By Johan van Benthem. 1985. Center for the Study of Language and Information: Stanford University. Chicago: University of Chicago Press. Pp. 74. $8.95

Reviewed by R. J. Sim
SIL—East Africa Group

Before talking about the Manual, forgive me for talking about myself; whether the latter or former is more interesting, you must be the judge.

In 1984, just returning from a translation project in Ethiopia, I spent an academic year at the University of Edinburgh, reading my way into recent developments in linguistics.

I got an eye-opener! I had spent nine years in eastern Africa as a member of SIL in a variety of linguistic and translation activities, and felt fairly knowledgeable among my peers. I had lately been training Ethiopian men and women in translation work, and leading a translation project in the Hadiyya and Kambaata languages. After a long, slow, problem-rich startup, the project was maturing nicely, and literature in Kambaata and Hadiyya portions were beginning to appear.

I assumed—like many language teams engaged in such work—that I had a competent grasp of semantics and knew what I was about in the translation task.

As I say, my reading year in 1984 was an eye-opener. In Scottish (British?) universities, the Ph.D. program consists solely of the thesis. Beyond Master's level, a student is not offered further classwork, but is expected to improve him/herself within the departmental context, through interaction with faculty, involvement at whatever seminars or lecture series were offered at the time, and by individual reading. I sat in on Ewen Klein's lectures in the Cognitive Science Department where he was developing the semantics that appeared in *Generalised phrase structure grammar* (published as Gazdar, Klein, Pullum and Sag, by Blackwells, 1986). Utter shock and bewilderment gave way to appreciation as I began to recognize what intensional logic and other approaches, such as Situation Semantics, were trying to do.

[Some work never did excite me—I confess with due contrition that work in generalized quantifiers has failed to raise my pulse rate! Maybe some day, when there is more consensus in the field, and more obvious benefits, I'll find some enthusiasm.]

My reading year did let me see how my previous training (in SIL) had been mere snacking. Semantics is serious, and I'd been nibbling (meaningfully, but still nibbling) at some fairly elementary and unformalized aspects of it.

Now read on:

Van Benthem's Manual is not intended as a beginner's stand-alone introduction to intensional logic. It is the rather terse notes from a graduate course in the topic taught in Stanford University in 1984. (That is the only connection with my reading year; I wish I had had the notes then!) To be an introduction it would need to come packaged with van Benthem himself. It assumes more than a casual acquaintance with recent formal semantics and is liberally sprinkled with short blocks of formalism—not really for the unmathematically minded.

However, it is well organized into short sections, and those who are not totally outside the formal camp will be able to work through it section by section. In 'Traditional theories' [sic] van Benthem looks at modern efforts with tense and time, modality (necessity and possibility), conditionals, and combinations of these. 'Recent developments 1' deals with the view emerging in the 1980's of a linguistic object/sign as a partial information structure. This looks again from the new perspective at time and tense, modality and conditionals, and proposes a formal logic of partiality. 'Recent developments 2' looks at generalized (determiner) quantifiers, and then explores parallels between tense, modality and conditionals and generalized quantifiers. There are some really heavy parts, some wall-to-wall formalism, and one could wish again that a packaged van Benthem came with every volume!

Because of our numbers, some of us in SIL are in danger of believing that the path we tread is the mainline of development in the area of semantics. Recent work coming out of CSLI is much more representative. That should ring some warning bells. The forefront of research and development is not usually where the big practical benefits are to be found, but not to be aware of the mainline of development can leave us in a sidestream. ■

Symposium on Language Loss and Public Policy
in conjunction with the 1995 Linguistic Institute of the LSA
University of New Mexico, Albuquerque - June 30-July 2, 1995

This symposium will bring together scholars from different disciplines to discuss the linguistic, psycholinguistic, sociolinguistic, cultural, and policy aspects of language loss. Abstracts deadline was 31 Jan. 1995. **Contact:** Garland D. Bills; Dept. of Linguistics; U. of New Mexico; Albuquerque, NM 31-1196 USA. E-mail: gbills@bootes.unm.edu..

Meeting of the Georgetown Linguistics Society
Developments in Discourse Analysis
Georgetown University—February 17-19, 1995

Contact: GLS 1995; Georgetown University; Dept. of Linguistics; 479 Intercultural Center; Washington, D.C. 20057-1068. Abstract deadline was Nov. 18, 1994.

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Alexrod, Melissa. The semantics of time: Aspectual categorization in Koyukon Athabaskan. 1993. Lincoln, Nebraska: University of Nebraska Press. 199 pp. Cloth $40.00

Bates, Madeleine and Ralph M. Weischedel, eds. Challenges in natural language processing. 1993. Cambridge, MA: Cambridge University Press. 296 pp. Hardcover $49.95.

Blake, Barry J. Case. 1994. Cambridge: Cambridge University Press. 229 pp. Hardcover $59.95.

Chafe, Wallace. 1994. Discourse, consciousness, and time: The flow and displacement of conscious experience in speaking and writing. Chicago: The University of Chicago Press. 327 pp. Paper $24.95.

Jannedy, Stephanie, Robert Poletto, Tracey L. Weldon, eds. Language files. Materials for an introduction to language and linguistics. 1994. Sixth Edition. Columbus: Ohio State University Press. 477 pp.

King, Alan R. The Basque language: A practical introduction. 1994. Reno: University of Nevada Press. 463 pp. Cloth $60.00.

Matthews, P. H. Grammatical theory in the United States: From Bloomfield to Chomsky. 1993. New York: Cambridge University Press. 272 pp. Hardcover $59.95, paper $24.95

McGarry, Richard G. The subtle slant: A cross-linguistic discourse analysis model for evaluating interethnic conflict in the press. 1994. Boone, NC: Parkway Publishers. 195 pp. Hard cover $35.00 U.S.; $45.00 outside the U.S.

Nerbonne, John, et al, eds. 1994. German in head-driven phrase structure grammar. (CSLI Lecture Notes No. 46). Stanford: CSLI Publications. 404 pp. Paper $22.25.

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Parks, Douglas R. Traditional narratives of the Arikara Indians. (Studies in the Anthropology of North American Indians). Lincoln and London: University of

Nebraska Press: **Vol. 1.** 1991. Stories of Alfred Morsette: Interlinear linguistic texts. 684 pp. **Vol. 2.** 1991. Stories of other narrators: Interlinear linguistic texts. 687-1344 pp. Set of 2, hardcover $125.00. **Vol. 3.** 1991. Stories of Alfred Morsette: English translations. 468 pp. $75.00. **Vol. 4.** 1991. Stories of other narrators: English translations. 471-902 pp. $40.00. Set of four volumes $200.00

Pollard, Carl and Ivan A. Sag. 1994. Head-driven phrase structure grammar. Chicago: The University of Chicago Press. 440 pp. Paper $34.95.

Reports from Uppsala University Linguistics (RUUL No. 26). 1994. Papers by Ingrid Björk (in Swedish), Eva Wikholm (in Swedish), Sven Öhman, John Sören Pettersson, Anju Saxena. Uppsala, Sweden: Dept. of Linguistics, Uppsala University. 111 pp.

SALSA I. Proceedings of the first annual symposium about language and society—Austin. 1993. (Volume 33, Texas Linguistic Forum). Robin Queen and Rusty Barrett, eds. Austin: University of Texas, Dept. of Linguistics. 253 pp.

Scharma, J. C., ed. 1992. From sound to discourse: A tagmemic approach to Indian languages. xxiv, 313 pp. (Contents include two articles by Kenneth L. Pike: 1. Recent developments in tagmemics; 2. An autobiographical note on my experience with tone languages.) Manasagangotri, Mysore: Centeral Institute of Indian Languages. 313 pp. Paper $5.00.

Troelstra, A. S. 1992. Lecture notes: Lectures on linear logic. (CSLI Lecture Notes No. 29) Stanford, CA: Center for the Study of Language and Information, Leland Stanford Junior University. 200 pp. Hardcover $49.95; Paper $18.95. ■

Conference on Linguistic Databases—23-24 March 1995
University of Groningen, The Netherlands

Papers on: Databases vs. annotated corpora, rpos and cons; Uses in grammar checking, replication of results; Needs of applications such as lexicography, Linguistic data consortium. Abstract deadline was 15 Dec. 1994. Contact: Duco Dokter d.a.dokter@let.rug.nl

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From the Linguistics Coordinator

With this issue of *Notes on Linguistics* we welcome T. Givón as an International Linguistics Advisor to SIL. Our readers will already be familiar with him from his numerous publications. His two volumes, *Syntax: A functional-typological approach* (Benjamins 1984, 1990) in particular, have been a tremendous help to those of us involved in field linguistics. These works can serve as a useful guide for the production of reference grammars in many of the languages studied among our readership.

Several entities and members of SIL have benefited from interaction with Dr. Givón over the years—from his teaching and supervising of some members at UCLA, and later at the University of Oregon, to his interaction with members in Papua New Guinea, advising the staff of the Oregon SIL, teaching a course in the Peru Branch, and participating in an SIL conference of grammar instructors and consultants. We have benefited greatly from his counsel and enjoyed his friendship and we look forward to more of both.

I would also like to take this opportunity to express appreciation to Eunice Burgess and Alan Healey for their years of service as International Linguistics Consultants with SIL. They are each moving to retirement status and will no longer be serving as consultants.

Eunice worked as a consultant for many years in Brazil, elsewhere in Latin America, and in Britain from time to time. She also taught at the SIL schools in Britain and Oklahoma, and compiled the *Language Learning Handbook*.

Alan held many workshops in Asia and Pacific field entities, besides teaching at South Pacific SIL. He compiled the still-much-used *Language Learner's Field Guide*, and together with his wife, Phyllis, has done research and publication on Semantics and NT Greek.

We are grateful to both Eunice and Alan for their years of service and many contributions as International Linguistics Consultants.

—David Payne

CONGRATULATIONS
to the following SIL members recently completing Ph.D.'s in Linguistics:

Dr. Regine Fachner (WBT Germany, MIT) University of Cologne

Dr. David Foris (WBT New Zealand, formerly Mexico Branch), Auckland University (incorrectly stated in *NOLG 68*, p. 6)

Call for Papers for Inaugural Meeing of the
ASSOCIATION FOR LINGUISTIC TYPOLOGY (ALT)
Vitoria-Gasteiz, (Spanish) Basque Country
Euskal Herriko Unibertsitatea
8-10 September 1995

Whether a member of ALT or not, anyone is invited to attend this event. Contact Frans Plank, Fachgruppe Sprachwissenschaft; Universitaet Konstanz; Postfach 5560; D-78434 Konstanz; Germany. E-mail: frans.plank@uni-konstanz.de

ERRATA

The following corrections should be made in the article, 'Rejoinder on "Reflections on Isthmus Zapotec inflection" to David Thomas' by David Weber in *NOLg* No. 68:

Page 30, last paragraph, second line should read 'third of a page occupied by the chart to the three pages of EWP rules, most ...

Page 32, second paragraph, sixth line, instead of '... way, and innumerable number ...' should read '... way, an innumerable number ...'

Combining functional and formal approaches to language*

Robert A. Dooley
SIL—Brazil Branch

1. Grammatical and extragrammatical conditioning. It is generally recognized that in language, certain levels tend to have 'tighter' organization than others. K. L. Pike (p. c.) has noted a general direction for this: 'Rules of grammar get tighter as one gets down lower from discourse to paragraph to sentence to clause to word.'

On the sentence level, for example, it is common to find more than one way to put elements together:

(1) a. I saw that short linguistics student today.
    b. Today, I saw that short linguistics student.
    c. That short linguistics student, I saw today.

On the phrase level, however, it is more difficult to put things together in different ways (asterisks indicate nongrammaticality):

(2) a. * short that linguistics student
    b. * student that short linguistics
    c. * that linguistics short student

So even though sentences have constituent-order norms and phrases allow some variation in constituent order[1], the fact remains that language is more constrained by grammar on lower levels. This is borne out across languages. What could be behind it?

1.1. Two kinds of conditioning. Linguistic output is triggered or conditioned by different sorts of things. If we ask what conditions the order *determiner - head noun* in an English noun phrase—for example, in the

* Editor's note: This article is adapted from the 1993 version of a text syllabus used as an introduction for Linguistics 504 Grammatical Analysis II at the Summer Institute of Linguistics, University of North Dakota Session.

[1] Word-order norms on the sentence level can be seen in the nongrammaticality of arbitrary constituent scrambling: * Saw today that short linguistics student. Variation on the phrase level can be seen in the grammaticality of the two noun phrases *both John and Mary* and *John and Mary both* (cf. Radford 1988:274).

phrase *that student*—we would say that that order is simply automatic, obligatory. That is, it is conditioned by the grammar itself; conditioning outside the grammar does not enter the picture.[2] If, on the other hand, we were to ask what triggers the fronting of a temporal adjunct such as *today* in (1b), the answer is quite different. That choice is conditioned by contextual factors (which we will briefly examine in Section 2).

So we can speak of two kinds of conditioning that can trigger linguistic choices: grammatical conditioning and extragrammatical conditioning. The two can be compared as in (3) (cf. Leech 1983:5):

(3)

Grammatical conditioning	**Extragrammatical conditioning**
largely independent of context	heavily dependent on context
aberrant forms are perceived as errors	aberrant forms trigger a search for suitable conditioning
governed by more-or-less rigorous rules	governed by more-or-less general principles
relatively language specific	more universal

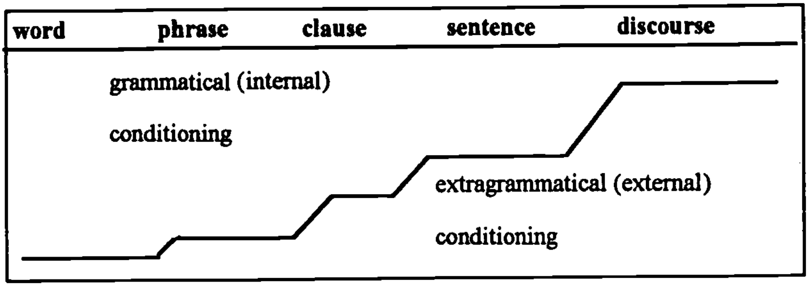
That is, although all permissible linguistic structures are licensed by the grammar, sometimes it licenses alternative structures, the choice being conditioned by factors outside (extra-) the grammar. This terminological distinction—grammatical vs. extragrammatical and internal vs. external—views grammar as a system: some facts within the system have their conditioning also within the system, but some facts are conditioned by factors outside the system (Hyman 1984).

We now return to the observation that grammar tends to be tighter at lower levels of language, and restate it in terms of a division of labor between grammatical vs. extragrammatical conditioning. As one goes from lower to higher levels, the role of extragrammatical conditioning increases, while that of grammatical conditioning decreases (Chafe 1992:356), as shown in (4) on next page.

1.2. Formal theories and functional approaches. This paper follows many recent treatments in taking 'grammar' in a fairly restricted sense, as

[2] In the history of the language, there may well have been outside factors which influenced the emergence of this order. Here, however, we are dealing with instance-by-instance, real-time language use.

(4)



that which identifies permissible (licensed) structural facts, assigns them a structure, and specifies their internal conditioning.[3] Because it focuses on form and structure, grammar of this type is often called **formal.**

Functional approaches pick up where formal grammar leaves off. They seek to account for why the speaker chooses the forms and structures he or she does, and why particular structures would or would not be appropriate in particular situations. In other words, functional approaches deal with **extragrammatical (external) conditioning** of linguistic choices.

The expression 'seek to' in the preceding paragraph is important. This paper does not assume that all language universals [much less all facts of individual languages] can be given a functional explanation' (Comrie 1989:88). At present, 'there are still many areas where no viable functional explanation is forthcoming, and where formal statements therefore still rule' (p. 99). It does seem, however, that 'for a significant set of constructions cross-linguistically, a functional explanation… can be established' (p. 87).

Since functional approaches seek correlations between structures and functions, there is general agreement that an analysis of linguistic structure is logically required by a functional analysis.[4] Structural analysis, whether

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[3] A broader use of the term 'grammar' includes other kinds of information which one would need to know in order to use a language effectively. Practical grammars are generally of this broader type.

[4] 'There must be a general analysis of formal features of language so as to relate them directly to their uses in context' (Silverstein 1980:6, cited in Foley and Van Valin 1984:10). Croft (1990:155), Everett (1992:15), and Givón (p.c.) agree. The distinction between form and function allows functions to be manifested in a given language by more than one structure, and structures to have more than one function. It also allows an analyst to identify structures without fully

done in a formal theory or in some looser framework, feeds into functional approaches.

In North American linguistics, formal theories of grammar are mostly generative, such as Government and Binding and Relational Grammar. Predominantly functional models include Givón 1984/1990 and Fleming's Stratificational Grammar. Other approaches (Tagmemics, Functional Grammar, Systemic Grammar, Role and Reference Grammar, etc.) attempt to combine major aspects of the two approaches within a single model.[5]

Rather than following one model exclusively, however, a person can choose to be eclectic, selecting strengths of different models for different tasks at hand. This has the inherent disadvantage (as some might perceive it) of not covering everything within a single model. That, however, is offset by three considerations: (i) each model can be expected to contribute sharp insights on the kinds of problems within its own focus (Hawkins 1988b); (ii) the use of more than one model contributes to a diversified perspective on language, much as a bicultural experience contributes to a broader world view and two eyes give perspective to sight; and (iii) an acquaintance with multiple models will help prevent the adversarial 'us-them' attitudes that often hinder linguistic work.

2. Generalization and explanation. Both formal and functional models claim to provide explanations for linguistic facts, but they differ sharply in what they count as explanation. Formal analyses often result in generalization rather than explanation in a causal sense but, as we will see, different kinds of structural generalization help explain differences between formal and typological approaches.

2.1. Generalization (Croft 1990). A generalization of a phenomenon P is a statement that is true not only of P but also of other phenomena Q_1 , Q_2, etc. as well. If P, Q_1 , Q_2, etc. are all internal to linguistic structure in the sense of Section 1, then the generalization can be spoken of as **internal** or **structural**; if P is internal but some of Q_1 , Q_2, etc. are external to linguistic

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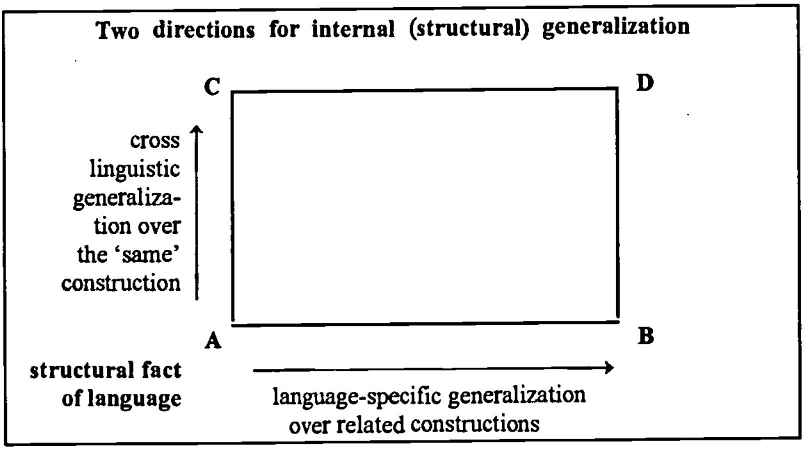
understanding their functions, or to start with a given function and ask what structures (if any) manifest it.

[5] Theories of grammar are, of course, more varied than a simple formal-functional distinction can capture. Some of them are discussed in Section 2. See Nichols 1984 for a survey of functional approaches; Sampson 1980 surveys a variety of approaches.

structure, the generalization is **external** (Croft 1990:249ff). In this section we will only use the notion of internal (structural) generalization.

If we begin with a linguistic construction in a given language, there are two obvious ways for internal generalization to go: one would be to generalize over other constructions within the same language; another would be to generalize over essentially the same construction as it occurs in other languages. Thus we can have internal generalizations which are either language-specific or crosslinguistic (Croft, loc. cit.):

(5)



Two directions for internal (structural) generalization

Proceeding from a particular fact of language in (5), generalization over construction types proceeds to the right, while crosslinguistic generalization goes upward. Consider the ordering *determiner - head noun* in an English noun phrase such as *that student*. This fact can be generalized in a language-specific sense as in (6) (see Radford 1988:227ff):

(6) In English phrases of different kinds, specifiers precede the head of the phrase.

A determiner in a NP is one type of specifier,[6] and in English we find adjective phrases like *very fond* with the specifier *very* preceding its head adjective, prepositional phrases such as *partly in the wrong* with the specifier *partly*, adverbial phrases such as *quite noiselessly* with the

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[6] Specifier is actually a grammatical relation, while determiner is a word-level category (Radford 1988:229), but in this case there is little difference.

specifier *quite*, and so on. In each case the specifier precedes the phrasal head, as in (6). This corresponds to the direction A → B in (5).

The same *determiner - head noun* order in English NPs could also be generalized crosslinguistically (A → C in (5)). One way to do this is a statement such as (7):

(7) When the descriptive adjective precedes the head noun, the demonstrative does likewise, with overwhelmingly more than chance frequency across languages.

Statement (7), taken from Universal 18 of Greenberg 1966:86, is an example of a statistical typological claim. Since English is one of the languages in which the descriptive adjective precedes the head noun (as in the phrase *short student*), (7) makes the prediction that the English demonstrative (a type of determiner) also precedes the head noun, as happens with *that* in *that student*. So (7) views the order *determiner - head noun* in English as an instance of a more general crosslinguistic fact about NP structure.

The generalization over construction types in (6) and the crosslinguistic one in (7) are not directly comparable; one cannot say that either generalization is better than the other. Formal grammar is sometimes criticized because it involves a high degree of abstraction away from actual data. Such abstraction is inevitable, however, since this kind of generalization must cover a variety of construction types.

With reference to (5), we can note an important difference between generative grammar and typological studies: 'In general, the generative linguist begins with language-internal structural generalizations [i.e., A→B in (5)]... and only then proceeds to crosslinguistic comparison [B→D]' whereas 'the typologist begins with crosslinguistic comparisons [A→C], and then compares typological classifications of different structural phenomena [C→D]' (Croft p. 250; cf. also Hawkins 1988b). If this were all that was going on, both approaches should end up at the same point (D); in practice, however, they often deal with different aspects of linguistic facts.

2.2. Explanation as external only (Givón 1979). Can we say that the order *determiner - head noun* in English is in any sense *explained* by generalization (6) or (7)? According to Croft (p. 248), 'a more general linguistic statement can be said to explain a more specific one'. As the term is commonly used, however, an explanation attempts to answer the question 'Why?', and it's not clear that generalizations do that. Rather, as Croft himself states (p. 249), 'a successful generalization shifts the kinds of questions that are asked to a higher plane.'

Givón (1979:5-8) takes the position that internal (structural) generalizations, as portrayed in (5), are not explanations at all.

> In essence, a formal model is nothing but a restatement of the facts at a tighter level of generalization... It cannot *explain* a single thing... In the words of I. I. Rabi, no explanation is possible without reference to 'something else' (i.e., something outside the system), to 'something more profound'.

For Givón, then, the term *explanation* should be reserved for something beyond the internal, structural dimension, something which involves extragrammatical or external conditioning in the sense of Section 1.

Consider the ordering of the adverbial expression *today* in (8a-b) (read these examples with the intonation nucleus on *linguistics*):

(8) a. I saw that short linguistics student today.
 b. Today, I saw that short linguistics student.

While (8a) and (8b) have the same propositional meaning (i.e., the same truth conditions), they can give different effects when placed within a context. For example, suppose someone says (9):

(9) I saw that red-headed physics major yesterday.

The speaker could continue (9) in a natural way by means of (8b), but (8a) would be somewhat odd. The reason is external to syntactic structure per se; it has to do with the tendency of fronted adverbial expressions to signal the primary basis for relating the main prediction to the preceding context (Levinsohn 1992), and thus to serve as a starting point for adding further information (Chafe 1987:36). The structure of (8b) serves as an explicit signal of switch or contrast in a way that is not true of (8a). In a stretch of speech consisting of (9) followed by some form of (8), it would seem strange if the temporal switch which is prominent semantically (from *yesterday* to *today*) were to be ignored structurally, as would be the case with (8a).

This kind of functional (external) explanation does not have a place in diagram (5); functional explanations are along neither of those two dimensions. If we like, we can think of functional explanations as being superimposed over the labeled points of (5). Consider this statement:

(10) In English, an adverbial expression which is fronted and set off by an intonation break signals the speaker's primary conceptual connection linking the main predication to the context.

If we think of the fronted temporal expression as exemplified by (8b) as being point A in (5), then (10) can be thought of as superimposed over point B. This is because (10) reflects a language-specific generalization to other types of fronted adverbial expressions. It might also be possible to formulate explanations such as (10) at points C and D in (5).

2.3. Goals of different approaches. In Givón's terminology, one might say that whereas the goal of formal linguistics is internal (structural) *generalization*, the goal of functional linguistics is external *explanation*. While that may be largely true, it is somewhat oversimplified. Note the following:

i. Some approaches to linguistic structure aim at providing a general framework for linguistic description. This variety is generally labeled **descriptive** (called 'structural grammar' in Nichols 1984:97; see Sampson 1980, ch. 5 for a historical survey). It 'describes such grammatical structures as phonemes, morphemes, syntactic relations, semantics, interclause relations, constituents, dependencies, sentences, and occasionally, as with tagmemics and glossematics, texts and discourses' (Nichols loc. cit.). In this type of approach, generalization (and theory-construction) is 'a means to the end of successful practical description of particular languages' (Sampson 1980:59).

ii. Certain formal theories have an agenda which definitely involves explanation. This variety of linguistics, called by Nichols (ibid.) 'formal grammar', 'analyzes the same range of phenomena [as mentioned in (i)], but does so by constructing a formal model of language'. The formal framework is intended to model an **innate linguistic faculty** which humans supposedly have (see Smith and Wilson 1979, ch. 2-4); in the model, the autonomy of grammar vis-à-vis extragrammatical facilities corresponds to the supposed restriction of this mental faculty to language skills. The theory, then, is largely an exercise in model-building: 'the model itself is the object of description, and the language phenomena only the means of description, the material on which arguments are based' (Nichols 1984:97). To the extent that the formalisms are successful in modeling the human language faculty, the result is explanation (see Hawkins 1988b:89f; Radford 1988:30-39; Newmeyer 1991 and replies in the same issue). How essential is innateness to generative work? On the one hand, 'it is perfectly possible to accept part of the whole of Chomsky's Linguistics, without accepting his Philosophy of Mind (i.e. the Innateness Hypothesis)' (Radford 1981;28), and doubtless many use the theory in this way for descriptive and other ends. On the other hand, for the leading developers of and spokesmen for the theory, innateness is absolutely central: generative theory 'now is construed as the theory of human I[nternalized]-languages, a system of conditions deriving from the human biological endowment...' (Chomsky 1985:23; see also Newmeyer 1983, ch. 1). It would be consistent with and even favorable to this view if facts of language were completely arbitrary, devoid of functional motivation. While that position would, of course, be indefensible in any absolute sense, presentations of formal grammar sometimes do attempt to minimize the role of functional explanation (cf. Newmeyer 1983, ch. 4).

(iii) Typological work stemming from Greenberg 1966 is similar to descriptive work in not focusing on a theoretical model; however, its objects of study are not facts of individual languages so much as crosslinguistic patterns which are observed from such facts (Croft 1990:2), that is, generalizations of the type A→C in (5). Later **Greenbergian typology**, in addition, often generalizes over construction types as well, i.e., C→D in (5). Since crosslinguistic patterns call for explanation, these typologists often take on the additional agenda of functional explanation, labeling themselves as **functional-typological** (Croft ibid., Givón 1984, 1990). But they search for explanation not in a human faculty that is specific to language as in (ii), but among factors which are broader than language (and which we survey in Section 3). See Comrie 1984 for one example. Greenbergian typology, then, is currently a mixture of structural and functional work.

(iv) As was already noted, all functional work is built on structural generalization of some type, or should be (Croft, p. 155).

In summary, some formal work aims at explanation as well as generalization, and all functional work uses structural generalizations. A large volume of useful work is a mix of both formal and functional elements, a modus operandi which is advocated in this paper.

3. Extragrammatical factors. What kinds of factors external to grammar can condition grammatical phenomena? In principle, the answer is open-ended; under the right conditions, just about anything can influence linguistic output. As Everett (1992:19) puts it, 'discourses... force us to draw upon all we know about our culture, language, and world.' In this section, we survey the types of factors that are cited most commonly.

It is helpful to distinguish between two types of external conditioning factors: those which are sociological in nature and those which are psychological and cognitive. Sociological factors are those which make necessary reference to the structure or organization of society (Lavandera 1988). Although this dimension of language must ultimately be taken into account, much of it comes under sociolinguistics, and as such will not be dealt with here.

The following are types of primarily cognitive factors which are commonly cited in functional approaches (see Croft 1990; Givón 1979; Haiman 1980, 1983):

(11)

Sentence processing—avoiding structures which would make sentences difficult to process.
Discourse pragmatics—linking what is being said to what is already known
Iconicity—using linguistic form to reflect the external reality being communicated
Economy—reducing/shortening linguistic elements which have high frequency or high predictability

These four types of factors are now briefly illustrated.

3.1. Sentence Processing. Psychological experiments in a variety of languages point out that certain structures, although grammatical, can make sentences difficult to process (Bever 1974, MacWhinney and Bates 1989). In speech, these structures are typically avoided when possible.

For example, processing problems can arise when NPs are piled up together before the point where a verb occurs which would clarify their semantic or structural roles. This is the case in (12a);

(12) a. the rat the cat the dog chased ate
b. the dog that chased the cat that ate the rat

(12b) is much easier to process than (12a), even though the information in the two examples is of comparable semantic complexity.

Similar effects of 'piling up' can be seen with conjunctions (from Smith and Wilson 1979:46):

(13) If because when Mary came in John left Harry cried, I'd be surprised.

As illustrated in (12) and (13), many processing difficulties arise from a combination of two facts: (i) sentence comprehension has to 'unfold in real time', through a process of structural hypothesizing and updating as the utterance is taken in; (ii) humans have a severely limited short-term memory, so that overload occurs when the 'amount of material that must be held in memory before a meaning assignment can be made' piles up (Bates and MacWhinney 1989:54-58). This sharply distinguishes human languages from computer languages.

3.2. Discourse Pragmatics. Another result of human cognition is that often pieces of information in an utterance are tagged to show how they relate to what the hearer is already aware of. This tagging may indicate, for example, whether a piece of information can be presupposed or must be asserted, or where it fits into the hearer's referential framework. It may be done by intonation, word order, or morphemes; sometimes it results in the utterance being divided up into different parts, each part with its own discourse-pragmatic or informational status. Tagging can also be done in different 'strengths'; as a general rule, the more salient or prominent the linguistic tagging on an expression is, the more noteworthy the expression is intended to be.

Consider the setting expression *today* in (14) (repeated from (8) in Section 2, and again read with the intonational nucleus on *linguistics*):

(14) a. I saw that short linguistics student today.
b. Today, I saw that short linguistics student.

When either (14a) or (14b) is used in a natural discourse context, *today* constitutes an overt semantic link to the then-current temporal framework. In (14b), *today* is, in addition, tagged with a high degree of linguistic salience: it is fronted and set off by an intonation break. By this salience, the speaker is likely signaling that *today* in (14b) is more noteworthy than routine dating. As discussed in relation to (8) in Section 2, such a fronted expression typically signals the speaker's primary way to link up the main predication to the context, and this can be expected to be motivated on discourse grounds. In particular, (14b) could naturally occur when the speaker is switching the temporal setting from what it was in the preceding utterance. In (14a), no particular salience attaches to *today*, and consequently no switch is suggested.

In a given language, there is usually a small inventory of ways to package utterances and label their parts to show how those parts relate to the context. One type of packaging, illustrated by (14b), is **starting point plus added information** (Chafe 1987:36): *today* is tagged as starting point, while *I saw that short linguistics student* is added information. Other packaging types are topic plus comment, focus plus presupposition, and presentative.[7]

All languages manifest discourse-pragmatic structuring, that is, the tagging of forms to reflect particular discourse-pragmatics. The correspondence of form to function, however, is not always one to one. While certain form-function correspondences are essentially the same across languages, others are different.[8]

3.3. Iconicity. Iconicity comes from the Greek word *ikon* 'image'. In linguistic iconicity, the physical form of the utterance is used to reflect some aspect of what is being denoted (Croft 1990:164-92; Haiman 1980, 1983).

One type of iconicity, mentioned above in the discussion of (14), bears repeating as a general principle:

(15)

Iconic principle of salience: The greater the linguistic (i.e., physical) salience of the link, the more informational salience is being signaled.

This principle, according to Givón (1990:969), shows up 'all over the syntactic map, in the assignment of larger segmental size or more prominent intonation to information that is either semantically larger, less predictable, or more important'. Another common signal of linguistic salience is linear positioning, especially initial position, but sometimes final position as well.

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[7] See Andrews, Avery. 1985:77-80 for a basic introduction to discourse-pragmatic structuring (there referred to as 'types of articulation').

[8] See, for example, Gundel 1988.

One could examine again the two sentences of (14) and ask why, in many languages, adverbial expressions such as *today* tend to occur at the extremes of the sentence rather than medially. Givón (1984:78) claims that an iconic reason is involved: the adverbial has the rest of the sentence (*I saw that short linguistics student*) within its *semantic scope*, and semantic scope is commonly reflected in the linear arrangement of linguistic elements (Steele 1975).

Iconicity on a much broader scale can be seen when temporal sequence in a narrative is reflected in the sequence of telling (Dressler 1992): the events of episode one preceded those of episode two, etc. This is the norm in most languages; flashbacks are exceptions.

For iconicity within the phrase, consider (16):

(16) The poor rabbit ran and ran.

Here, repetition of the verb mirrors an extended action. Repetition with a similar iconic function is sometimes even found within a word, in reduplication.[9]

Iconicity can therefore be found on all levels of language.

3.4. Economy. Economy basically means not using any more linguistic material than is necessary to get the message across (Croft 1990:156-64; Haiman 1983). Accordingly, linguistic elements which are either very frequent or highly predictable are commonly shortened or reduced in some way.

Frequent usage of linguistic elements often results in **contraction** (the eroding of phonological material): *I'm, you're*, etc. High predictability often results in **ellipsis** (the surface omission of an element which is present in the underlying structure, cf. Halliday and Hasan 1976:144), as in (17):

(17) She sat down and Ø wept.

The four general headings discussed above (sentence processing, discourse pragmatics, iconicity, and economy) cover many specific factors which condition linguistic output.

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[9] Such evidence runs counter to Everett's (1992:22) claim that 'communicative structuring only applies above the sentence'.

4. Pragmatics. This section discusses how the term *pragmatics* is used in this paper. One might hope instead for a definition of what this term 'really means'. As with other linguistic terms, however, there are many facets and many understandings.[10] This section aims at being a sensible composite of common views, and closely follows Leech 1983.

4.1. Meaning. We begin by considering meaning. Sometimes this term is used more or less synonomously with **semantics**, but it is helpful to conceive of semantics a bit more narrowly as referring to just one aspect of meaning: the association between form and meaning which holds by virtue of linguistic convention. **Pragmatics** brings contextual factors into the picture by use of inference rather than by simple convention. In regard to meaning then, pragmatics is the effect of context on interpretation.

Consider (18):

(18) He didn't do it.

A semantic analysis of (18) will furnish the information that the pronoun *he* refers to a male referent and that the transitive verb *do*, denoting some action of the subject *he*, is modified by negation, is in the past tense (perfect aspect), and has the direct object *it*. Semantics will further inform us that the sentence is an assertion (e.g. rather than a question or a command),[11] but semantics will not tell us who *he* refers to or what *do it* denotes.

Pragmatics takes the semantic output and applies what can be learned from the context in which the utterance was produced. If a particular male was the topic of conversation in the immediately preceding sentence, for instance, that same male is probably identifiable as the referent of *he*, subject to inferential checks (i.e., Does that make sense in light of other things I know?). If a particular action was mentioned immediately preceding (18) or was obvious to hearer and speaker in the speech situation, that action may well be a reasonable interpretation of *do it*. Further, expanding the context to include the speaker's feelings toward the referent of *he*, it might be possible to infer that by means of (18) the speaker is intending to defend this person, or alternatively to accuse him of

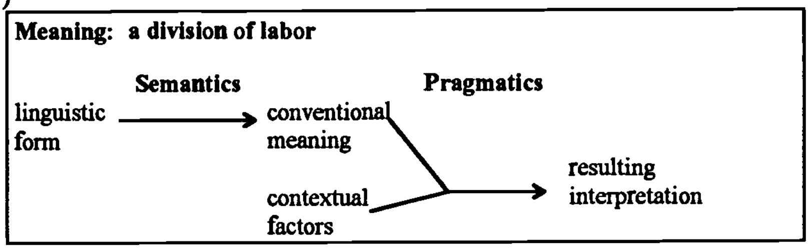
[10] The origin and historical vagaries of the term *pragmatics*' are surveyed by Levinson (1983, sec. 1.1).

[11] This supposes that intonational data are also available. The period at the end of (18) can be taken as signalling the intonation of a typical declarative.

negligence. It could be that the speaker by means of (18) is suggesting that the hearer should do the action in question, or possibly that the hearer should follow the example of *he* and *not* do the action in question. All such interpretations are possible based on contextual information which could be available. This information is brought to bear by means of inference. Hence, it goes far beyond semantics which is based on conventional associations.

This division of labor between semantics and pragmatics (following Leech 1983) can be visualized as in (19):[12]

(19)



4.2. Context. If pragmatics is defined in terms of context, what then is context? Broadly speaking, **context** can be thought of as anything outside of an utterance itself that is relevant for its production or interpretation. Typically, context includes some of what was said (or written) prior to the utterance (sometimes called the **co-text**, or **discourse context**). Also it typically includes the time and place of the situation within which the utterance was produced, the participants present, and other situational factors (sometimes called the **context of situation**). It often also includes the speaker's general **world view** (shared within a culture), as well as **particular beliefs and attitudes** about specific people, items, happenings, etc. The list could continue.

Context is thus an open ended notion; just about anything, under the right conditions, could be relevant to a given utterance; nor can context always be identified prior to the process of interpretation. Instead, each possible

[12] In practice, the boundary between semantics and pragmatics is somewhat fuzzy since choices between conventional meanings often depend on context; cf. standard dictionary definitions of a word such as *cut*: '1. to penetrate with a sharp edge; 2. to separate into parts with a sharp-edged instrument; 3. to shorten or trim; 4. to fell by sawing;' etc.

interpretation involves its own selection and inferential combination of contextual factors. When we search for a plausible interpretation of an otherwise enigmatic utterance, we search as well for a contextual framework within which the interpretation will make sense.

4.3. Pragmatics more generally. Most definitions of pragmatics stop at this point, limiting it to meaning (i.e., interpretation). However, form as well as meaning is at least partially determined by contextual considerations so that pragmatics can be thought of in a broader sense as in (20):

(20)

Pragmatics in the broad sense

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Pragmatics of meaning **Pragmatics of form**

Just as the pragmatics of meaning contrasts with automatic, conventional associations of form and meaning, so the pragmatics of form (called pragmalinguistics by Leech 1983:11) contrasts with the automatic, grammar-internal triggering of linguistic form. It involves extragrammatical conditioning, including types that were discussed briefly under the heading of discourse-pragmatics in Section 3.

To summarize: In the broad sense, pragmatics is concerned with the effect of contextual factors on the entire process of communication including both form and meaning. It involves inference (and possibly other cognitive processes), and is outside of grammar per se.

5. Testing functional hypotheses. In an article which shares concerns with the present section, Nunberg (1981:199) states that 'linguists often complain that pragmatic explanations, on the whole, lack the rigor of explanations in syntax and phonology'. There are two major reasons why functional hypotheses are difficult to test. The first has to do with the problematic nature of functional factors themselves; the second has to do with the dominant paradigm for hypothesis testing in the current linguistic climate.

5.1. The problematic nature of functional factors. Four properties of functional (external) factors make functional hypotheses difficult to test:

21)

Problems inherent in functional factors
• their variety
• the nonempirical nature
• their gradience
• their complexity of interaction

The term **variety** in (21) refers not only to the diversity reflected in the list of types of factors discussed in Section 3, but also to the fact that the list is, in principle, open-ended. Functional linguistics is not a sharply delineated area of investigation.

The term **nonempirical nature** refers to the fact that many times functional factors are not open to direct observation, but must be perceived in a way that depends on a particular context and calls for interpretive judgment.

Functional factors are often **gradient**, present to one degree or another rather than being present or absent in an absolute sense (Hawkins 1988a:334). This makes consistent interpretive judgments even more difficult.

Complexity of interaction refers, first, to interaction with forms: the form-function correspondence is, in general, many-to-many instead of one-to-one. It also refers to interaction with other functional factors: 'different principles are often in partial conflict ... and this complicates the precise predictions that they make' (Hawkins 1988a:354).

This complexity can be illustrated in regard to (22), which repeats (10) from Section 2:

(22) In English, an adverbial expression which is fronted and set off by an intonation break signals the speaker's primary conceptual connection linking the main predication to the context.

Consider now a dialog such as (23):

(23) Speaker A: Today, let's go to the beach.
Speaker B: Today, let's go to the beach, sure.

In (23) one observes that Speaker B's response contains an adverbial expression which is fronted and set off by an intonation break. However, there is no apparent motivation for using this expression to link up the main predication to the context since the temporal framework (today) continues unchanged from Speaker A's utterance. This appears to contradict (22). So is (22) thereby invalidated? Not necessarily.

Most speakers would agree that Speaker B's utterance in (23) is **echoic** of Speaker A's: that is, it is obviously imitative of the earlier utterance. Echoic utterances occur for their own functional reasons based, perhaps, on (24) (cf. Sperber and Wilson 1986, Sec. 4.9):

(24) To the extent that an utterance is recognized as echoic of an earlier one, it is interpreted as making a comment on the earlier one (agreeing with it, ridiculing it, etc.). The exact nature of the comment is pragmatically inferred, involving contextual factors. It may be additionally signaled by special morphemes, intonation, facial expression, etc.

Thus an echoic utterance may convey sarcasm or irony with respect to the earlier utterance; in (23), B may be sarcastically rejecting A's suggestion in view of some contextual factor such as bad weather. If so, the fronting of today in B's utterance in (23) would be part of the imitative, echoic nature of the utterance rather than being the 'primary conceptual connection linking the main predication to the context', as predicted by (22).

This kind of exception illustrates a difficulty which is common with functional hypotheses. There may be many places in the data where the given hypothesis fails in its predictions, and each time this happens the analyst always seems to find a new factor to 'pull out of the hat' and explain away the discrepancy. This may leave the impression that the hypothesis is empty, and even that functionalism itself is a spurious enterprise. Even functionalists sometimes admit that their hypotheses are often better for explaining results after the fact than for predicting outcomes.

The possibility of other factors coming in to make a prediction fail is not in itself alarming. As C. S. Lewis (1969 [1946]:254-56) says:

> It is a 'law' that when one billiard ball shoves another the amount of momentum lost by the first ball must exactly equal the amount gained by the second ... provided nothing interferes. If one ball encounters a roughness in the cloth which the other does not, their motion will not illustrate the law in the way you had expected. Of course what happens as a result of the roughness in the cloth will illustrate the law in some other way, but your original prediction will have been false ... The more certain we are of the law the more clearly we know that if new factors have been introduced the result will vary accordingly.

With functional hypotheses, the problem is the seemingly endless variety of 'new factors' that are available. This is precisely the situation one would expect where the range of extrasystemic factors is open-ended in principle and where the factors interact in complex ways.

Due to the problematic nature of functional factors, Nunberg (1981:220) states that 'no increase in technical sophistication is likely to alter the basic picture', i.e., to make functional hypotheses substantially more rigorous or predictive. In functionalism, we run up against the difference between a tight logical system and the real world.

5.2. Paradigms for hypothesis testing. A particular paradigm for testing specific hypotheses in linguistics came to dominance with the advent of generative grammar. Givón (1989:280) calls it **falsification by deduction**; a rough version is given in (25):

(25)

Falsification (by deduction)
- Start with a hypothesis P to be tested.
- Identify a result Q which necessarily follows from P, and which can be observed directly.
- Test for Q.
- If Q does not prove to be the case, then P is necessarily disproved (falsified).

Givón (1989:281) contrasts this with a second paradigm, **verification by induction**, for which he cites the philosopher Charles Sanders Peirce:

(26)

Verification (by induction)
- Start with a hypothesis P to be tested.
- Identify results Q_1, Q_2, etc., which follow from P, and which can be observed directly.
- Test for Q_1, Q_2, etc.
- If Q_1, Q_2, etc. do prove to be the case, then P is to that degree confirmed (verified).

The two paradigms can be compared as follows:

(27)

Falsification	Verification
Depends on a single test (i.e., is Q false? If not, nothing is learned)	Depends on many tests; the greater the variety, the better the conclusions, positive or negative
Conclusion is stated in absolute terms: 'P is false' (i.e., if Q is false; if Q is true, no conclusion is possible)	Conclusion is stated in relative terms: 'P is confirmed to the degree that the results are confirmed and cover all likely possibilities'
Works best in a tight logical system	Works best in a probabilistic, open-ended system

Although modern linguistics does not always actually apply the falsification paradigm, it is often thought of as the only valid way to test hypotheses. Its dominant position corresponds, predictably with the prominence of tight formal theories of phonology and syntax. Falsifiability is often taken as a sine qua non of a respectable hypothesis, and the crucial counter example has assumed a major role in argumentation.

In functional linguistics, however, falsifiability is difficult because of the problematic nature of functional factors (discussed in the first part of this section). Consider a situation where hypothesis P is the statement (22), repeated here as (28):

(28) P = In English, an adverbial phrase which is fronted and set off by an intonation break signals the speaker's primary connection linking the main predication to the context.

If Q were speaker B's statement in (23) and we were using the falsification paradigm, P would be flatly disproved by that one example. As a matter of fact, however, there is much discourse evidence for P (see Levinsohn 1992), so that when a single exception or even an entire class of exceptions is found, we might be able to retain P by reducing its scope somewhat. Echoic utterances, for example, are a class of potential exceptions to any form-function hypothesis. Consequently, it should be possible to understand P and other form-function hypotheses with the proviso 'for non-echoic utterances' as being understood. This is not to say that P can't be overturned, but overturning it is likely to be a far more complex operation than presenting a single example.

In fact, because of the multiplicity of factors which may not be apparent from the outset, making a single hypothesis fail in functional linguistics may be comparable in complexity to making an entire theory fail in formal linguistics. This happens, 'not in the spectacular way in which theories are supposed to fail on account of a crucial falsifying observation, but in the way in which things tend to happen in linguistics through a slowly accumulating weight of adverse arguments' (Leech 1983:3). In general, when many complex factors can impinge on a hypothesis, a complex validation procedure, such as (26), is called for.

One must not minimize the difficulty here. The basic problem with testing functional hypotheses can be thought of in terms of the question, 'How can I know what a hypothesis even means if I can't say when it is true or false, if I can't know under which circumstances it is claimed to hold?' The difficulty is a classical one in epistemology (the nature of knowledge). The same difficulty confronts anyone who has ever been told, 'You're a good sport', 'This is a tough school', or 'I love you'. All such statements are meaningful and we routinely agree or disagree with them, but their truth is not easy to test. The difficulty with functionalism is that it deals with the real world, not with tight logical systems that filter out complexity.

Two further observations can be noted. Some linguists prefer not to work in functionalism because of its untidiness. Personal preferences are, of course, to be respected. The nature of reality, however, is not a matter of preference. The first observation is that whoever desires to understand effective communication will have to deal with functionalism and its attendant complexity.

The second observation deals again with Nunberg's issue of whether functional work can, in principle, be done in a rigorous way. Because of the problematic nature of functional factors, doing functional linguistics is in a sense more challenging than doing formal work. Final answers are difficult or impossible to come by. Rather than use this as an excuse for sloppiness, functional linguists should do their best so that others can understand and evaluate their work. Among other things, this will involve: (i) explaining concepts which are being used, (ii) taking into account a broad range of data, (iii) indicating under what circumstances hypotheses are being claimed to hold, (iv) considering and evaluating alternative analyses (including formal ones), and (v) distinguishing limited, partial results from broad, conclusive ones.

6. Mixed conditioning: grammaticalization. 'Many aspects of language,' writes Comrie (1984:99), 'can only be appreciated in terms of the interaction of formal and functional factors.' Such aspects of language have mixed conditioning—some which is internal to grammar and some which is extragrammatical. A description of such phenomena needs to make reference to both kinds.

One important special case of mixed conditioning is grammaticalization.

6.1. Grammaticalization: Grammar encroaching on discourse-pragmatics. Grammar tends to be acquisitive: it often takes over devices which reflect some extragrammatical factor and uses them to reflect its own, grammar-internal conditioning (Hyman 1984:71). When this happens we say that the device has been **grammaticalized** (or syntacticized, Comrie 1988:268).[13] The effect of grammaticalization is to insert grammar-internal conditioning into a situation which otherwise would have pure extragrammatical conditioning.

Consider focus marking in Aghem, a Grassfields Bantu language of Cameroon. Aghem has a focus marked *nò*; this marker occurs immediately following the constituent being indicated as focus (Watters 1979:166). Here are some examples from Watters 1979 (unidentified glosses are not important to the discussion):

(29) a. *ʃú kɨ́ mɔ̂ ñìŋ nô á kɨ'bé*
rat SM P1 run FOCUS in compound
'The rat *ran* [i.e. did not walk] inside the compound.'

b. *ʃú kɨ́ mɔ̂ ñìŋ á kɨ'bé nò*
rat SM P1 run in compound FOCUS
'The rat ran inside the *compound* [not inside the house].'

In (29a-b), the constituents in focus are followed by *nò* (the tone is modified according to the environment). **Focus** is a notion from discourse-pragmatics (see Section 3) which, roughly speaking, is the part of an utterance which the speaker is asserting rather than presupposing (the non-focus parts of (29) are presupposed). Focus is thus an extragrammatical

[13] Grammaticalization is often defined in a more restricted sense, as when 'a lexical unit or structure assumes a grammatical function' (Heine et al. 1991:2; see also Hopper and Traugott 1993).

notion, not grammar-internal. So in (29) the placement of *nò* is triggered by an extragrammatical condition, as discussed in Section 1.

The same kind of sentence in Aghem may occur without any particular focus marking:

(30) *fú kí mô ñìŋ á kɨ́-'bé*
rat SM P1 run in compound
'The rat ran inside the compound.'

A sentence such as (30) is less specific as to focus, as would be the case when all of the information is asserted in answer the question 'What happened?'

Now consider (31):

(31) a. *fú kí mô ñìŋ nô*
rat SM P1 run FOCUS
'The rat *ran* [did not walk] or The rat ran.'

b. * *fú kí mô ñìŋ*
rat SM P1 run
'The rat ran.'

(31a), with the focus marker, can mean either that there is specific focus on the verb 'ran' or that there is no specific focus; (31b), the form which we would have expected to find for no specific focus, is ungrammatical. Why is this?

In Aghem it is possible for a sentence with a verbal complement (such as 'in the compound' in (29) and (30)) to occur either with or without a focus marker, but a sentence such as (31) without a verbal complement must have a focus marker of some type. That is, we find that the occurrence of the focus marker *nò* is conditioned not only by the extragrammatical notion of focus, but also by a grammatical factor, the presence or absence of a verbal complement. We can say, then, that the focus marker is partially grammaticalized.

6.2. Discourse-pragmatics encroaching on grammar. Grammaticalization is a mix of grammar-internal and extragrammatical conditioning in which grammar, so to speak, encroaches on the interests of discourse-pragmatics; it is also possible to find mixed conditioning where discourse-pragmatics encroaches on the interests of grammar (Hyman 1984). A brief illustration is given from switch reference in Mbyá, a dialect of Guaraní, a Tupí language of northern Argentina, southern Brazil, and eastern Paraguay.

Switch reference is a way of marking a dependent clause to indicate whether or not its subject is the same as or different from that of an adjacent 'matrix' clause. Consider (32) from Mbyá Guaraní (Dooley 1989):

(32) a. *ava o-o vy mboi o-exa*
man 3-go SS snake 3-see
'When the man went, he saw the snake.'

b. *ava o-o ramo mboi o-exa*
man 3-go DS snake 3-see
'When the man went, the snake saw him.'

In (32) note the difference in meaning made by replacing *vy* 'same subject' by *ramo* 'different subject'. This marking reflects a grammar-internal category (subject).

There are cases when it is not simple to determine whether the subjects are the same or different, and in these situations discourse-pragmatic notions take advantage of the confusion and 'take over' the use of these markers. This happens, for example, when the subject of one clause is included in a group which is the subject of the other clause: when the subjects are of different grammatical person, different-subject marking occurs; when the subjects are of the same grammatical person, however, the choice of switch reference markers is conditioned by discourse-pragmatics. Consider the two sentences of (33), both taken from the same text:

(33) a. *ha'e rire jo-guer-aa ma tape rupi ramo*
that after RECIP-COMIT-go already path along DS

ka'i jagua pe aipo-e'i...
monkey dog to ATTN-3-say...

'After that, as they [the dog and the monkey] were going together along the path, the monkey said to the dog...'

b. *i-jypy jo-e irũ va'e-kue vy*
3-beginning RECIP-ABS companion REL-PAST SS

ae	*jagua*	*o-exa*	*teĩ*	*ka'i*	*ka'aguy*	*re*	*vy*
exactly	dog	3-see	ADVER	monkey	woods	ABS	SS

amogue	*jagua*	*n-o-nhe' ẽ-i*	*va'e*	*ka'i*	*re*
some	dog	NEG-3-sound-NEG	REL	monkey	ABS

'Since they [the dog and the monkey] had been companions in the beginning, some dogs, even when they see a monkey in the woods, won't bark at him.'

In both (33a) and (33b) there is a clause in which dog and monkey form a joint subject followed by a clause in which one or the other singly is subject; in (33a) there is different-subject marking, while in (33b) there is same-subject marking. The conditioning factor appears to be whether or not there is a new 'leading participant' for that particular part of the text. In (33a), a paragraph-initial sentence, it seems that no leading participant has been established by the end of the joint-subject clause; the different-subject marking coincides with the establishment of a new leading participant ('monkey'). (33b), however, is paragraph-medial and follows a sentence which says, 'As a result of that [incident], right up to the present time when dogs see monkeys in the woods, some won't bark at them.' That is, (33b) restates and immediately follows a sentence in which 'dog' is leading participant. Since there is nothing to change this status, it apparently carries through all clauses of (33b), accounting for the same-subject marking.

Whatever else can be said about the notion 'leading participant' (and it does need further explication), it is very much a discourse-pragmatic status. The point here is that precisely when Mbyá switch reference marking is in a vulnerable position—in particular, when it becomes difficult to apply the grammatical conditioning criterion—discourse-pragmatics comes in and takes over the marking for its own ends.

6.3. Mixed conditioning: Conclusion. In focus marking in Aghem and switch reference marking in Mbyá Guaraní, it is necessary to use both formal and functional notions to fully describe what is going on. How often can we expect to find phenomena with a mix of formal and functional conditioning? Comrie (1988) takes the position that there are very few phenomena with pure conditioning of either type: most phenomena which are basically discourse-pragmatic can be found to have cases with grammar-internal conditioning (as with the Aghem focus marker), and most phenomena which are basically grammar-internal can be found to be conditioned by discourse-pragmatics or other extragrammatical factors 'around the edges' of the phenomenon. (We also find phenomena for which it would be hard to say that they basically belong to either one or the other domain; they are more or less equally responsive to both. The ordering of clause and sentence constituents can be like this.)

Whether mixed conditioning is ubiquitous or rare, the fact that it exists poses problems for reductionist positions, both the claim of autonomous syntax and the claim that syntax is fully controlled by external factors. It should present no difficulty, however, for those who are prepared to combine formal and functional approaches to language.

7. Implications for field work. Chomsky (1980:224-25) draws the following comparison between knowledge of language structure and knowledge of language function (for which he uses the term *pragmatics*):

> The grammar must deal with the physical form of a sentence and its meaning. Furthermore, the person who knows a language knows the conditions under which it is appropriate to use a sentence, knows what purposes can be furthered by the appropriate use of a sentence under given social conditions. For purposes of inquiry and exposition, we may proceed to distinguish 'grammatical competence' from 'pragmatic competence', restricting the first to the knowledge of form and meaning and the second to knowledge of conditions and manner of appropriate use, in conformity with various purposes. Thus we may think of language as an instrument that can be put to use. The grammar of the language characterizes the instrument, determining intrinsic physical and semantic properties of every sentence. The grammar thus expresses grammatical competence. A system of rules and principles constituting pragmatic competence determines how the tool can effectively be put to use... We might say that pragmatic competence places language in the institutional setting of its use, relating intentions and purposes to the linguistic means at hand.

He further states (Chomsky 1975:56ff):

> Surely there are significant connections between structure and function; this is not and never has been in doubt ... Where it can be shown that structures serve a particular function, that is a valuable discovery.

Chomsky's interests are avowedly centered on the tool itself, leaving to others the study of how it is put to use. Certainly there is a kind of linguistic fieldwork that can be done by studying structure alone; this is often done when persons gather data for a thesis, dissertation, or publication cast in a formal model. However it is quite a different matter when the goals of a field linguistic program depend on effective communication in a minority language. This is very much the case where translation or vernacular education are involved.

7.1. Functionalism in translation. Translation, according to Givón (p.c.), is where all linguistic skills come together. Grammaticality is a necessary condition for a good translation, not a sufficient one. A translation should clearly communicate what the original did. Therefore the translator needs to understand factors that make for effective communication and how they are reflected in the languages involved.

Even when members of a minority language group have major responsibility for producing the translation, an assisting linguist may have a crucial role to play in monitoring and facilitating the effectiveness of the communication. It is a relatively easy matter for members of the language group to correct errors of grammar. It is often much more difficult for them to recognize the source of other communication difficulties and know how to remedy them. The linguist's knowledge of functional factors can be crucial. This is even more true if he or she desires to pass such remedial skills on to members of the language group by raising to a conscious level their intuitive knowledge of how the language can be effectively used.

7.2. Functionalism in vernacular education. Modern reading theories teach that reading is much more than word-by-word decoding but rather involves building conceptual frameworks within which printed messages can be plausibly interpreted. Reading is impaired, if not impossible, when words don't make sense.

Apply this to the task of trouble-shooting a primer. This requires someone who can spot problems in sentence processing and discourse-pragmatics, among other things, so that vernacular writers can correct them. Just as in translation work, members of the language group may need more help with functional matters than with structural ones.

7.3. Training in functional approaches. Since functional approaches are important for the field linguist, training is needed in this area as well as in structural analysis.[14] The field linguist should be trained to do basic discourse analysis. Syntactic typology, if presented with a view to

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[14] A case for formal linguistics in training for field work is presented by Everett (1992).

functional factors as well as structural generalizations, can be of great value as well.

Some of this training can be taken before a language project begins, but serious study should continue in the field as the linguist begins to grapple with the language in question. Courses on the field, field workshops, independent study and reading, study under a mentor, and work with a consultant on specific projects can all play a part.

8. Additional Sources. Additonal sources of information on this topic can be found in Foley and Van Valin, Jr. 1984 and in Numberg 1981.

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Fifth Annual Meeting of the Society for Test and Discourse

This meeting will be held at the University of New Mexico, Albuquerque, NM in conjunction with the Linguistic Society of America Summer Institute. It will begin on Saturday morning, July 22, and end around noon on Sunday, July 23, 1995.

This is an international society of researchers who investigate all aspects of discourse processing and text analysis. The purpose of the society is to consolidate research in discourse processing and to enhance communication among researchers in different disciplines.

1. How to join the society: Regular membership in the society includes a subscription to the society's journal, 'Discourse Processes'. The membership fee for U.S. and Canadian members is $65; membership rates for others is $70. Write to: Society for Text and Discourse, Department of Psychology, University of Minnesota, 75 E. River Rd., Minneapolis, MN 55455.

2. How to register for the July meeting: The registration fee for the meeting is $25 for members and $40 for nonmembers. To register, send a check for the appropriate registration fee and the following information to the address given above: Name; affiliation and mailing address; city, state, zip; country; telephone; email address; fax number.

Dissertation Abstracts

The structure of Wanka Quechua evidential categories

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This study concerns how speakers of the Wanka dialect of Quechua encode the source and reliability of their knowledge. Wanka's three evidential markers are examined in the context of naturally-occurring conversations. In addition to functioning as indicators of information source, other meanings emerge that have typically escaped attention in the Quechua literature, but which shed light on the nature of linguistic category structure. An analysis is provided which accounts for both the unity and diversity of the evidentials' meanings in terms of principles of categorization that find their roots primarily in the work of Wittgenstein and have been subsequently elaborated by Zadeh, Berlin and Kay, Rosch, Lakoff, and Langacker, among others.

The present study recognizes the polysemous nature of evidentials and analyzes them as complex network categories (Langacker). Each evidential has a prototypical meaning that is characterized primarily in terms of information source notions. The prototype provides the principal basis for extended meanings, which may, in turn, motivate other extended senses. In addition, the network of conventionalized senses for each evidential has an abstract schematic meaning that can be characterized in terms of some aspect of epistemic modality. The schemas for two of the evidentials concern the degree of commitment that the speaker has towards the proposition marked by the evidential, whereas the schema for the third concerns the proposition's 'mirative' status.

The investigation is also partially motivated from the observation that evidentials in Wanka exhibit obvious co-occurrence tendencies with person and tense marking. Based on the assumption that conceptualization motivates and affects linguistic structure, I explore an explanation of this phenomenon in the latter part of the thesis.

The general aim of the study is to refine and expand our understanding of what evidentiality entails and to broaden the range of grammatical categories for which an appeal to cognitive principles may provide an insightful analysis.

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Wh-Movement in Kadiweu

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The stated aim of the thesis is to examine *Wh*-Movement in the different Kadiweu constructions in which it is involved. In order to achieve this aim it is necessary to investigate thoroughly the underlying word order and the various movement rules which apply to it to produce the surface order. The thesis divides into two major parts. The first part prepares the ground for the second part which examines *Wh*-Movement in various grammatical constructions in Kadiweu.

Part I of the thesis begins with a basic description of the phonology, morphology and syntax of the language. (The description is made as non-theoretically biased as possible by the avoidance of many technical terms.) The theoretical framework to be employed is discussed in Chapter 2. Chapters 3 and 4 deal with evidence for the basic underlying word order of the clause together with several movement rules. Supporting evidence comes from morphological considerations and is dealt with in Chapter 5. Having established the underlying word order, further theoretical considerations are discussed in Chapter 6, concentrating on a review of *Wh*-Movement with recent developments, but also including any other theoretical issues which are relevant to our thesis. A series of diagnostic questions for *Wh*-Movement is prepared, to be used in Part II. The chapter also provides a bridge to the second major part of the thesis.

The first chapter in Part II deals with Relatives. Relativization is a major strategy used in many constructions in the language and the first chapter on constructions therefore gives a full discussion of Relative Clauses. The next two chapters examine the involvement of *Wh*-Movement in the formation of Interrogatives and Focusing constructions. 'Heavy NP-shift' and V-Movement occur in the language but cannot be included in a generalized *Wh*-Movement, as chapter 10 shows. A chapter is included to examine whether or not *Wh*-Movement is operative at LF and concludes that it does not operate at that level of grammar. Chapter 12 gives a summary of Part II and particularly of the findings with regard to *Wh*-Movement. Problems of structural level at which some movements operate is discussed, together with rule motivation. The thesis proper ends with an overall assessment of *Wh*-movement in Kadiweu, the appropriateness for Kadiweu of the theoretical framework chosen, and finally with some implications of the investigation for TGG theory in general. The study is important in that its success in applying a modern GB theoretical framework to a language totally unrelated to any other studied from a GB perspective provides strong empirical evidence for the universality and correctness of GB theory.

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Reports

Report on 48th Congress of Americanists

Stockholm, Sweden—July 4-9, 1994

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My participation consisted in attending the lectures presented to the Seminar on South American Languages and presenting a paper titled 'How bilingual are they, anyway?' to the Seminar on Endangered Languages, which had gotten much of its stimulus from the late Wick Miller of the University of Utah.

The lecture by Klaus Zimmerman, a professor from the Ibero-Amerikanisches Institut of Berlin, made some interesting points on the differences between official tabulations of languages and those made by nongovernmental institutions. It was followed by papers of the symposium on 'Native languages of South America: Synchronic and diachronic aspects', organized by Mary Ruth Wise, SIL—Peru Branch; William A. F. Adelaar of Leiden University, the Netherlands; and Rodolfo Cerrón Palomino of the Pontificia Universidad Católica of Lima, Peru.

The Seminar on 'Endangered languages' was opened with a moment of silence in memory of Wick Miller, who had been fatally injured in a car-bicycle accident in Hermosillo, Sonora, Mexico last May.

Howard Abel and Kay Fowler presented a paper in which Howard (a native speaker of Northern Paiute) gave an overview on the status of language usage at various places within that language area. Although on paper one might think that Northern Paiute has 7,000 speakers, when Howard broke it all down into communities, the picture took on a different aspect. This underscores a point in Joe Grimes' paper on 'Language sizes and extinction', that size itself does not tell you a lot.

Another paper was by Ramón Arzápalo. He discussed factors that may be leading to the extinction of Yucatec Maya. Paul Kroskrity gave a paper on 'Language ideologies and their contribution to differential language maintenance in two Native American speech communities: The Arizona Tewa and the Western Mono'. Yolanda Lastra presented 'Is Otomí an endangered language?' and Robert Oswalt dealt with speakers of declining and dying or nearly extinct languages. Paul Kroskrity also read a paper by Robert Williams: 'A historical perspective of U.S. indigenous language policy', which detailed parts of the U.S. government's shabby handling of Indian affairs. Mary Ruth Wise then presented a summary of South American languages.

Dale Kinkade read Wick Miller's paper about language shift and maintenance in the Shoshone area. It was a 'microstudy of the kind Wick was noted for'. Yolanda Lastra made an announcement about a memorial fund to provide scholarships to American Indian students in memory of Wick Miller, reading a summary of his life.

One special note was having Robert Oswalt at this conference. He has spent thirty years working on Pomo-Kashaya of California.

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Report on the 23rd Linguistic Association of the Southwest (LASSO) Meeting

Houston, Texas—October 21, 23, 1994

Marlin Leaders, Texas SIL

The twenty-third annual meeting of LASSO meeting was held at the Doubletree Hotel in Houston, Texas. There was a total of 56 papers on the program. Two sessions were run concurrently. One session was on Language Contact, Creoles, and Southwest U.S. and Central American languages. The other session was more general linguistic topics from various languages concerning morphosyntax, lexical semantics and cognition, word order, phonology, and discourse.

I presented my paper, 'What's really at the root of morphemic roots?' in the Friday afternoon session. The idea of submorphemic particles had not occurred to many of the audience, and several said they appreciated the many examples laid out in a way that helped to compare the words that have some phonological similarity and also some semantic similarity.

One paper that stands out to me was by Carolyn Hartnett of Midland College, Texas—'The pit in word order in English sentences'. She talked of a position she has named 'pit' that occurs between the subject and verb in English, as in 'Boston, it seemed, did not have enough cultural life'. This occurred in 16 percent of her data from newspaper articles and includes speech act information such as hedges, source credits, conjunctions, appositives, and verbal modifiers. Though I don't like the name of the position, I'm beginning to see that many languages put higher level information in the second position of clauses (like Greek *de*, Dioula tense-aspect).

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There was a plenary address by Ian Hancock (UT, Austin) on 'The African component and the age of Texas Seminole Creole'. Professor Hancock's presentation was interesting in pointing out the connection between Creole languages of the two sides of the Atlantic: Africa and the Americas. Not being an expert on the topic, I was unable to understand the examples in detail, but wondered about the more recent thesis on the Black English Vernacular that it is in fact a Creole language in its post-Creole continuum (e.g. Fasold 1990). The pidgin and Creole studies are certainly exciting in that they enable us to see a language change in a shorter span of time than usual, and that they force us to think about the origin of these languages and in fact all languages, as Bickerton (1981, 1990) did. The presidential address was given by Richard Janda (U Chicago) on 'Language change always takes place in the present: On taking the uniformitarian principle seriously'. I agree with him in principle but we need to develop good methodology (e.g. Labov 1972) as we can't just wait for a change to occur in front of our eyes.

Maria Polinsky's paper, 'Situational perspective and thematic roles: Figure and ground in Tsez' showed that the normal expectations of figure-ground encodings in language may not be taken for granted across languages. In several examples it was the opposite to my expectations. She argued that figure-ground are perspective-dependent notions, and that they are independent of grammatical relations and thematic/semantic case roles.

My own paper 'Microsegmentation of procedural discourse' dealt with issues of procedural discourse (e.g. definition, typical features, and questions such as 'Are all how-to texts procedural?'), and methodology to segment a text and group sentences together into embedded paragraphs. As illustrative texts, I used a three-page text by K. L. Pike ('How to make an index'), another how-to text, and a few recipes. I chose the topic because so little has been written on this type of discourse. It is still true that much more studies are needed for this least-explored type of discourse.

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Report of Linguistics-Translation Workshops—Mexico

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From January through May of 1994 we held two workshops in Oaxaca, Mexico. The purpose was to explore discourse structures in the various languages represented, and to immediately plug these discoveries into the translation process.

Reports at the end of this intensive time were very positive. The combined discourse-translation workshops were quite effective in meeting the goals of the branch—exploring simultaneously the two domains. It required a major chunk of the translators' time plus the cooperation of consultants from both the linguistics and translation departments. But the benefits were apparent, not only to the translators involved but also to the language associates who received training as the workshop progressed.

Interest in the part of the participants was maintained in spite of the weeks of heavy work because they were convinced of the applicability of their findings to their translation programs. The intersection of the morphosyntax and discourse-pragmatic concerns were intimately related to the translation process to the mutual enrichment of all three.

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Report on the Organization in Discourse Conference Turku, Finland—9-13 August 1994

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'Discourse analysis' means different things to different people. The Organization in Discourse Conference in Finland made this aphorism abundantly clear.

The first group of papers I will describe as 'discourse interpretation'. This was by far the largest group of papers represented at the conference. It included plenary papers by Jan Firbas, František Daneš, Michael Hoey, Eija Ventola, and Jan-Ola Östman. These papers were mostly concerned with thematic organization or cohesion as characterized by the Prague school. For example, Jan-Ola Östman's paper described the functions of several 'pragmatic particles' in English, such as *just*, *so*, and *well* largely in terms of 'theme', 'hyper-theme' and other concepts deriving from the Prague School. A list was made of the various functions of each particle, according to Östman's interpretation, and examples given from texts.

I describe this work as 'discourse interpretation' rather than 'discourse analysis' because claims are made largely based on the researchers' intuitive judgments, e.g., 'the writer uses pragmatic particle X in this environment in order to draw the reader into the scene being described'. There is no attempt to validate such claims using statistical sampling or some other empirical methodology.

The second group of papers can be characterized as 'empirical text linguistics'. The only plenary speaker who represented this group was Douglas Biber. The methodology used by these researchers typically involved correlating functional variables such as episode boundaries (Prideaux) or register (Biber), and structural variables such as constituent order. Statistical techniques were then used to determine whether there was a significant, and therefore potentially causal, relationship between the structural features and the functional features.

A particularly interesting example from this group was 'Misunderstanding in organized discourse' by Immanual Barshi. The research described in this paper attempted to replicate the interaction between air traffic controllers and pilots in a controlled laboratory experiment. This work was initiated (and funded) with the aim of improving air safety by improving communication between controllers and pilots. It turns out that almost all airline mishaps are at least partly caused by miscommunication, while in 73 percent miscommunication is cited as the sole cause. So if anyone ever asks 'what good is linguistics?' you now have a concrete and comprehensible answer.

The third group was represented by plenary speakers Ulla Connor and Nils Erik Enkvist, and can be characterized as 'rhetoric and translation'. These papers discussed particular features of texts, and problems involved in translation. There was some controversy between those who seemed to understand translation as a 'decoding' and 'encoding' process, and those who believe that translation involves a 're-expression' of connotative as well a denotative meaning in the target language.

Actually there are four groups of papers if you consider mine, 'Locational relations in Yagua narrative', as its own group: 'descriptive text linguistics.' It seemed out of place in this otherwise very interpretive, psycholinguistic and literary group, but engendered some thoughtful comments.

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Further comments on the Seventh International Conference on Austronesian Linguistics

The Netherlands, 22-27 August, 1994

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[Last issue we printed reports on this conference from two participants. Excerpts from Quick's report, received later, are included here as they have additional evaluative summaries which may be of particular interest to *Notes on Linguistics* readers working in Austronesian languages.]

About 120 Austronesian specialists presented papers at the Seventh International Conference on Austronesian Linguistics (ICAL7). The ICAL has been meeting every three to four years since 1974, and this was the first ICAL held outside of the Austronesian area. ICAL was sprinkled with graduate students, field researchers, and other academics. As an Indonesianist, I was particularly gratified to see several Indonesian scholars presenting papers and to interact with them as well.

More SIL members would benefit from this type of conference. The cross-linguistic similarities are often amazing and help remind us that we are not working in a closed system. It is amazing to see the stability of certain grammatical categories and cognates of languages still largely pronounced the same in languages separated by several thousand years. For example, in the Western Austronesian language of Pendau where I work, the deictic verb pair *ma'o* and *mai*, 'go' and 'come' respectively, are *atu* and *mai* in Tokelauan, a Polynesian language (cf. R. Hooper, 'From directional to aspectual: The polysemy of *mai* and *atu* in Tokelauan'), and *ako* and *mai* in Hawaiian (cf. K. Cook, 'The temporal use of Hawaiian directional particles').

The ICAL organizing committee was very organized, as exhibited by early announcements and regular correspondence with ICAL participants. The first circular for ICAL was distributed in 1992, and stated that

> The general emphasis of the conference will be on the presentation of primary language data. In this way we would like to commemorate Hendrik Neubronner van der Tuuk, the first linguistic fieldworker—and also the first Austronesian comparative linguist—in the Netherlands, who died at the age of 70 on August 17, 1894.

It was especially helpful to have a bound edition of abstracts of ICAL papers in advance of the conference.

The conference was hosted by the Leiden University's Department of Languages and Cultures of Southeast Asia and Oceania. The wealth of their research and linguistic history is virtually unknown in American linguistics. Several papers were dedicated to Van der Tuuk, the father of Austronesian linguistics, on this year of his centennial anniversary's death. C. D. Grijns, in his conference paper 'Van der Tuuk and the study of Malay', gives a good introduction to him and his work:

> Herman Neubronner van der Tuuk (1824-1894) owes his international fame mainly to his pioneering work in the field of Austronesian historical linguistics and his fundamental studies of the Batak, Old Javanese and Balinese languages. The majority of his writings have appeared in Dutch, but some of his work is now available in English. Especially important is the translation of his 'Grammar of Toba Batak' which was edited by A. Teeuw and R. Roolvink (Tuuk 1971) and the wealth of material from his 'Kawi-Balineesch-Nederlandsch woordenboek' (Tuuk 1897-1912), as incorporated in P. J. Zoetmulder's 'Old Javanese-English dictionary' (Zoetmulder 1982). During the whole of his career as a productive scholar Van der Tuuk also pursued the study of Malay. His first and his last, posthumously published, articles were on the Malay language. As his Malay studies represent many minor writings and are mostly written in Dutch, this Conference, organized in Leiden in com-

memoration of the 100th anniversary of his death seems a suitable occasion on which to give a summary in English of his work and ideas on the Malay language and its literature.

Early Bible translators in Indonesia were linguists, and Van der Tuuk was a reluctant Bible translator!

Papers were distributed over a wide range of Austronesian languages, from Cham in Vietnam to Philippine and Indonesian languages, all the way to the Polynesian languages from New Zealand's little known extinct language, Moriori (cf. R. Clark, 'The definite article and the authenticity of Moriori') to Hawaiian, in Hawaii, USA, and westward to Malagasy in Madagascar. At least one paper was devoted to claiming a connection between Chinese and Proto-Austronesian (cf. L. Sagart, 'Old Chinese **s*- and PAN **si*-: a comparison of their functions'[1]). The opening plenary paper, 'On the changing context of Austronesian historical linguistics' was given by Dr. Grace, with three parallel sessions following it during the five-day routine. The three parallel tracks were on different linguistic topics: syntax, diachronic/comparative studies, phonetics/ phonology, morphology, sociolinguistics, semantics, and endangered languages. Discourse analysis was usually relegated to either Syntax or Sociolinguistics.

There was a noted emphasis on descriptive linguistics and actual language data, and less on theoretical linguistics. However a number of descriptive papers integrated theoretical linguistics and demonstrated how advantageous it is to incorporate basic data converging and/or contributing to theoretical aspects of linguistics. R. Van den Berg's paper 'Verb classes, transitivity and the definiteness shift in Muna: A counterexample to the Transitivity Hypothesis', goes on to show a clear counter-example to the Hopper-Thompson theory of transitivity. Van den Berg concludes:

> The synchronic data in Muna provide clear counter evidence to the Transitivity Hypothesis, in that the presence of definite objects in a clause seemingly corresponds with a decrease of verbal transitivity. From a historical-comparative perspective, however, this synchronic anomaly appears to be merely a coincidence, reflecting on the one hand the absence of verbal markers in some intransitives and on the other hand the direct attachment of agent prefixes to verbal bases without verbal markers. These functionally unrelated phenomena have let—through a series of changes—to the present homonymy of verbal marking with definite objects and certain intransitives.

[1] That was the abstract's title; Sagart's printed conference paper was titled 'PAN *Si*-, the *s*- prefix of Old Chinese, and related matters'.

C. Grimes presented a stimulating paper as well, 'Semantic bleaching in languages of eastern Indonesia'. His paper also demonstrated the strength of an integration of data, theory and application and, contrastively, the pitfalls of earlier linguistic descriptions, comparative linguistics, and local failures to develop orthographies, as well as problematic translations:

> The languages of eastern Indonesia use structural contrasts (involving phonotactic, stress and/or constituent order contrasts) to indicate functional/meaning contrasts between *asserted* (predicated, restrictive) use of modifiers and *presupposed* (bleached, conventionalised, non-restrictive) use of those same modifiers. The conventionalised forms are most commonly encountered in proper names, such as traditional names of people, or nicknames, place names, such as villages, or plants, instruments, or cultural items, actions or events whose non-restrictive characterisation reflects something that is well established with its own cultural script. Such structural contrasts must be reflected in analysis, in the orthography, in comparative linguistics, and in translation.

The issues of topic, subject, focus, ergativity or nominative, are alive and well, for the Philippine type languages, and appeared in papers on several other areas of Austronesia as well. A number of papers presented from these divergent perspectives indicates a general consensus is still lacking on some major typological concerns, although the unique concept of *focus* (and secondarily *voice*) has become somewhat of a measuring rod in these discussions. It is difficult to tell whether this indicates that competing linguistic theories with their preconceived reins on interpretation of data is at fault, since the data is often well understood. Or whether different theories placed on the same sets of data merely allow one to view language from a different perspective. I suspect it is a mixture of both. My own paper was a foray into this critical issue, and was the only paper to bring to bear the relatively new typological view of inverse voice into focus (cf. P. Quick, 'Active and inverse voice selection criteria in Pendau, a western Austronesian language'). I presented a previously undescribed Central Sulawesi language to bear on this discussion, with my own blend of data description, inverse voice theory, and discourse analysis. I suspect as more languages' data are studied and discourse analysis sharpens our under-standing of typology, that consensus on these issues will eventually emerge.

Durie presented a paper describing the results and directions that discourse analysis can go with computerized aid (cf. M. Durie, 'A case study of pragmatic linking', based on texts from the Achenese language of Sumatra, Indonesia). In an informal chat with him, I discovered that he has developed on Apple computer program based on a relational database system which he would make available. One of the gaping holes in SIL software is this type of program which can aid the discourse analyst.

Major strides are being made in historical and comparative linguistics for the Austronesian world. Several papers reported on the status of the Oceanic Lexicon Project sponsored by the Australian National University (ANU). The breadth and depth of papers presented by ANU faculty members is exciting (cf. R. Green and A. Pawley, 'Reconstructing the house forms and settlement patterns of early Austronesian colonists of Oceania: linguistic, archaeological and ethnographic evidence', and M. Ross, 'Proto Oceanic terms for meteorological phenomena'). These papers illustrate how the basic data that descriptive linguistic analyses provide can be cultivated for maximum benefit, and should encourage field linguists to make available their basic research findings. These papers also illustrate the benefits of cross-disciplinary exposure, such as meteorology and archaeology, in expanding our present synchronic linguistic understanding.

Several papers were devoted to endangered languages, and Saturday morning was devoted largely to an open forum on endangered languages (originally scheduled as a panel discussion). Some concerns concentrated on the need to gather basic data and write up descriptive analyses. One of the outcomes of the conference was a move towards an official association of Austronesianists and a steering committee of seven members were appointed, with Dr. Pawley from the Australian National University as the chairman. It is anticipated that the Association of Austronesianists will be installed in three years in Taiwan at the site of next ICAL.

The richness and diversity of Austronesian languages continues to present a challenge to linguists for documentation, classifying language groupings, and reconstruction of proto-languages. The unique nature and history of the progress of Austronesian languages in history is sure to present positive and lasting contributions to linguistics, even as the ICAL7 conference has already made its contributions.

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Report on 27th Annual Meeting of the British Association for Applied Linguistics (BAAL)
Leeds University, UK—15-17 September 1994

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The Annual Meeting of BAAL brings together academics in applied linguistics, mostly from the UK, but with an increasing international contingent. Founded to serve the interests of teachers of English as a second foreign language, the association—and the conference—has broadened in scope to include the application of linguistics to a range of social phenomena. About 185 people took part, most with an English-teaching background in the UK or elsewhere. However, a significant number were interested in sociolinguistic questions—particularly the mutual influence of language and social change in a variety of contexts.

The conference theme, 'Language and change', had three plenary sessions, fifty papers given, and four workshop panels held. I gave a paper entitled 'Winds of change in Africa: Fresh air for African languages?'

Professor Catherine Snow (Harvard University) spoke on 'Measuring developmental change in language'. This paper looked at how to measure the acquisition of language by young children (0-3 years), and sought to move beyond the 'gold standards' of mean length of utterance (MLU). She wanted to disaggregate the measure to ensure that different phenomena capacities in the child were measured separately. She presented research which examined: number of conversational turns, mean length of turn intelligibility of utterance, grammatical complexity, number of communicative attempts/minute. She concluded that children do not necessarily progess along all measures simultaneously or at the same rate.

Professor D. Pattanayak (founder and former director of Central Institute of Indian Languages—CIIL—now retired) spoke on the topic 'Change, language and the developing world'. This paper presented the importance of multilingualism in today's world and explored some of the dynamics in developing societies. He noted the crushing of small cultures under the onslaught of Westernizing influences, the growing gap between developed and developing nations, and the need to see development as multidimensional. Emphasizing the role of education in development, he remarked that in developed countries the debate is about higher standards of achievement, while in developing countries the debate is about basic provision of education. He pointed out that the comparative advantage of developing countries—abundant manpower—is lost in a world where knowledge and information is increasingly becoming the basis of society.

Professor Norman Fairclough (University of Lancaster) spoke on 'Border crossings: Discourse and social change in contemporary societies'. This paper looked at social change in contemporary Britain (with echoes of the West in general) and sought to show how this is reflected in 'orders of discourse'. He identified eight aspects of change and concluded that language education needs to provide for the capacity, first, to live with and influence rapid and constant change, and second, to live with an articulate cultural difference.

Partly because of the theme, the issue of social change was prominent. This was based largely on the West, and there was no attempt to apply the same principles across developed and developing countries. Thus Pattanayak's and Fairclough's contributions were fairly separate—there is some thinking to be done about the nature of change in such different contexts. Otherwise, change in the West will continue to set most of the agenda for development intervention. For SIL, we must be sensitive to the analytical frameworks developed in the West, since that is how we are perceived as a Western organization; at the same time we must confront such frameworks with the realities of the developing world which we serve. Thus we will have a better perspective on trends and their implication, and, importantly, be able to articulate our work in both directions in a relevant way.

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22nd International Systemic Functional Congress
Department of English, Peking University, Beijing, China—July 19-24, 1995
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23rd International Systemic Functional Congress
Centre for Language and Literacy, School of Adult and Language Education, Faculty of Education, University of Technology, Sydney, Australia, July 15-19, 1996.
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Book Reviews

A grammar of Comanche. By Jean Ormsbee Charney. 1993. Lincoln: University of Nebraska Press. 270 pp.

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Fifty years ago members of the Summer Institute of Linguistics began linguistic and translation projects involving Native American languages spoken in the United States. The first of these was the Navajo project begun in 1944. A year later Elliott and Viola Canonge began a study of the Comanche language in Oklahoma. During the years that were spent on this project Elliott Canonge authored an article on Comanche voiceless vowels, published a collection of Comanche texts, produced a booklet of Comanche hymns, and translated the Gospel of Mark into the Comanche language.

Much of what has been done in the analysis of the Comanche language since then has been based on data collected by Canonge, especially that contained in his volume of Comanche texts. The author of the grammar under review refers to this work as 'an outstanding collection of folk tales and personal anecdotes' and makes frequent reference to Canonge's data from both this collection of texts and his article on voiceless vowels. Her present grammar, however, is based primarily on data that she herself collected in the 1980's from Comanche speakers, few of whom are now under the age of seventy.

Charney makes the observation that 'Comanche is morphologically a relatively simple language'. On the other hand, she states that 'morphologically, verbs can be highly complex'. In her chapter on verbs she describes the most important processes involved in derivation and inflection. The rather elaborate set of aspect markers appears to be the outstanding feature of what is treated as verb inflection. Motion suffixes, indicating motion toward the speaker, away from the speaker, etc., are treated on a different level. Under 'argument specification', Charney describes passive sentences, indefinite subject and indefinite object markers, and benefactive verbs. Elsewhere in the chapter on verbs, instrumental prefixes, incorporation, compounding, and optional dual and plural subject markers are covered. Verb suppletion, auxiliary verbs, and instrumental verbs are briefly described.

Other chapters in the book cover additional word classes—pronouns, nouns, noun modifiers, and adverbs and modal particles. A chapter is devoted to simple sentences and one to complex sentences, but no attempt is made to go beyond the sentence level. The author, however, refers to numerous articles by Armagost which explore various Comanche discourse features.

It is in the chapter on phonology that some interesting theoretical issues come to light. A pervasive characteristic of the phonology of Numic languages (including Comanche, Shoshone, Ute, Northern Paiute, and others) involves what has come to be known as 'final features'. The term is somewhat misleading, although normally final features are posited to terminate a morpheme and to affect the quality of whatever consonant immediately follows. Four of these features are recognized for Comanche: 1) lenis, unmarked; 2) fortis, marked =; 3) preaspiration, marked *H*; and 4) aspiration, marked *h*. An underlying *p*, then, is realized as [*v*] if a preceding morpheme is terminated with the lenis final feature. [v] varies from a voiced bilabial stop to a voiced bilabial fricative. On the other hand, the underlying *p* is realized as a fortis unaspirated bilabial stop if a preceding morpheme terminates with a fortis final feature. Likewise, a preaspiration final feature triggers [*hp*], and an aspiration final feature triggers [$\phi \sim hv$].

Final features, then, are highly abstract underlying units that prove useful in describing Numic phonological processes. What real world phonological features have given rise to these processes are no doubt lost in the history of this language family. The phenomenon of 'hidden' features of this kind which affect the phonetic realization of a contiguous segment may not be all that unusual in natural languages, although it is rare to find the phenomenon as pervasive as it seems to be in the Numic languages. Is something similar involved in the differential effect of adding either of the two English *-er* suffixes to a stem ending in a velar nasal? Thus, *strong* plus *-er* results (at least in my dialect of English) in the appearance of [g] at the juncture of the two morphemes, while no such phonological process is evident in *hang* plus *-er*.

In her discussion of Numic final features, Charney relies heavily on input from Wick Miller who has studied corresponding features in Shoshone, a language very closely related to Comanche. Miller identifies four Shoshone final features—spirantizing, nasalizing, geminating, and preaspirating—corresponding to the four Comanche final features, and he makes observations concerning diachronic developments of these features in the Numic languages.

Charney employs two types of transcriptions in citing Comanche forms—a 'systematic phonetic' one and a 'systematic phonemic' one. The systematic phonetic transcription is said to be 'essentially the transcription used by Canonge ... and is more accessible to the nonspecialist than is the systematic phonemic representation'. Interestingly, Canonge would have considered his transcription a phonemic one in terms of then current phonological theories. Charney's systematic phonemic transcription seeks to represent underlying features, most notably the Numic 'final features'. A typical citation, then, appears as: *[muɸne] muH-pVhne* to spit (an object) out.

Canonge's claim that Comanche voiceless vowels are 'phonemic' was supported by solid data, including minimal pairs. Charney examines this claim in detail and, while retaining voiceless vowels in her systematic phonetic transcription, explains them in terms of phonological processes resulting from posited underlying features represented in her systematic phonemic transcription. She describes two processes: 'devoicing A' and 'devoicing B', but recognizes some exceptions to the latter. She then gives Armagast's list of reasons for the exceptions. The result is an exceedingly complex analysis of voicelessness and one that might take various forms depending on one's theoretical approach to phonology.

This grammar is well written. Care is taken to make it easily readable for one not familiar with Numic languages nor with any single theoretical approach. The result is a very usable grammar in which the major features of the Comanche language are clearly displayed. It will go a long way in pre-serving data on the now 'endangered' Comanche language, as well as providing food for continued speculations in the area of phonological theory.

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Feminism and linguistic theory. By Deborah Cameron. 1985 and 1992. Basingstoke and London: Macmillan. 247 pp.

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Have you ever been troubled by trying to decide whether to use 'he', 'she', or 'they' in an English sentence? You should read this book, although it is not so much a plea for political correctness as a detailed look at various theories within linguistics. The author, a lecturer in Literary Linguistics at Strathclyde University, shows how feminists have used each theory in an attempt to find a common language in which to express women's feelings of alienation. She concludes that, just as the underlying assumptions of each linguistic theory are not adequate to describe the way people actually use language, so each feminist theory is also flawed. Rather she argues for linguistics to describe the changes happening within language and to take more account of the cultural context of the discourse.

Cameron looks at the findings of research into women and folk-linguistics—the features of women's speech. Attributes of women are that they are hesitant in speech, are not very ordered in their logic, and couch questions as statements. They are also purported to speak less than men in mixed groups and use cooperative rather than competitive strategies. The author suggests three possible reasons for this: that women are often excluded from formal discourse situations; that men who find it hard to follow women's conversation deal with their incomprehension by defining women's behavior as odd; and that the stereotype has no validity in reality.

Next Cameron looks at the play between class and gender, showing how, for example, the dialect used in poetry by a miner will be taken to reflect his class, but the nurturing language of his wife, her gender. Language used to children, often labeled 'feminine', which is a status, should rather be labeled in accordance with the role, that of child-rearing. As she says, terms used to define women's speech are often those that do not have a high value at that time in that society, giving examples of two cultures where women are said to have direct speech where indirect is valued, and indirect where direct is valued. She shows how data-gatherers have subsumed women into the class of their husbands although they often have more qualifications than the men and are expected to 'speak nicely'.

Robin Lakoff (female, by the way) says:

> Adult women will have the unappealing choice between rejecting women's language and so becoming 'less than a woman', or embracing it and thus acquiescing in their inferiority and becoming 'less than a person'... For men can use their socially dominant position to claim linguistic privileges.

One strand of feminism has thus sought to raise the value of women's speech by focusing on the supposed supportive aspect where each participant is allowed their say without fear of ridicule, thus ensuring the smooth conduct of interpersonal relationships. Cameron concludes that this strategy has the effect of producing the very differences which are then used to justify the original discrimination.

Next Cameron considers the way in which gender differences have been taken to be 'natural'. She shows how those binary oppositions that anthropologists discuss, such as light/darkness, reason/unreason, mind/body, good/evil, masculine/feminine are, above all, culturally determined. Each opposition uses in fact a different principle, and they are not 'natural' oppositions so much as hierarchies. Unmarked 'neutral' words like driver are proven to surface with assumptions of maleness, examples being taken from the British press and the speech of George Bush. Thus where a word is deemed to be 'generic masculine', that is it covers both male and female, it really only covers male. Also, the so-called 'singular they' to which I referred at the beginning, and which is often used now instead of generic 'he' to the annoyance of prescriptivists, is actually less than 200 years old. As one author pointed out, 'Why is number concord more important than gender concord?'

Peer groups and schools condition the growing child as much as the nuclear family. 'Every known society differentiates women from men, and most of them exemplify some degree of male dominance.' Post-modernism, while still not being fully satisfactory to the author, offers a possibility for women to voice their shared experience since it aims at polyvocality, 'a play of different voices in which no one will silence or drown out any other'. For women should not lump all women together in the way men have done, since their experiences are different.

Whether or not you agree with feminism, you may agree with Cameron's conclusion arguing for a more contextual and creative view of linguistics. By discussing sexist language in the West, she makes us aware of our hidden assumptions. When we see a neutral term, we actually envisage a male referent.

Jon Arensen, SIL member in Sudan, is to be applauded for attempting to write his thesis on the world view of the Murle without using an English pronoun to describe the high god, since in that language male and female pronouns are not distinguished. Cameron's book shows that it is not just issues of pronouns but issues of dominance that are the key. Take the example of Chumburung literacy classes in Ghana. Theoretically both men and women were free to attend and several passed, and one or two were teachers. But it was not till several years later that a group of women approached me with a view to a class of their own. They had been unable to find a (male?) teacher. So I ran the class but tried to encourage two women who were perfectly able, to do the actual teaching. Perhaps we should have used reverse discrimination earlier.

As a linguistic organization, it behoves SIL rather than to scoff at or ignore feminism, to recognize that much of our language and practice is male biased and do something about it. 'For in Christ there is ... neither male nor female' (Galatians 3:28).

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***A dictionary of Early Zhou Chinese*.** By Axel Schuessler. 1987. Honolulu: University of Hawaii Press. xxxii, 876 pp.

Thomas M. Tehan
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'Ah yes,' you say. 'I have been wondering about where I could get a good dictionary of Early Zhou Chinese.' Well, this is a good one, and it just might be more relevant to your work than you would at first suppose.

But first a bit of background: Who were the Zhou and where did they come from? A brief survey of ancient Chinese history follows. Various Neolithic cultures living in the Yellow River basin eventually organized into the Shang civilization, 1600 to 1122 B.C. The Shang dynasty ruled over a feudal country that developed an ideographic writing system by 1300 B.C. with over 3,000 symbols or characters or graphs.

The next dynasty to rule as Chinese civilization continued to develop was the non-Chinese Zhou, or Chou, barbarians from the West. The Zhou reigned in China from 1122 to 256 B.C., first strongly, then weakly, and finally nominally. Chinese writing gradually became more complex during this period. Confucius lived and wrote at the end of this era. The change from the Shang SHANG DI 'supreme god' to the more modern TIAN 'Heaven' is attributed to the Zhou (p. xvi).

The Chi'n dynasty took over next, ruling for only 11 years, but probably giving its name to China as well as building the Great Wall. Unfortunately, they also burned many books in an effort to control ideas and thus reduced the number of texts that we have from Zhou and Shang times. The next dynasty was the Han; it ruled China for over 400 years. The Chinese languages and peoples are often designated as Han to distinguish them from the 'non-Chinese' people of China. Linguists have divided the oldest stages of the language into two historic stages; Archaic or Old Chinese is usually dated around 500 B.C. and Ancient or Middle Chinese around A.D. 600.

The author of this dictionary, Axel Schuessler, is now at Wartburg College in Iowa and was trained in Classical Chinese, Tibetan, other Asian languages and Indo-European linguistics at the University of Munich, Germany. Throughout the dictionary, he abbreviates Early Zhou Chinese as EZ (easy?) which in my mind is a good pun.

So what is this rather large dictionary? Schuessler's idea for this dictionary grew in part out of his comparisons of Old Chinese phonology and morphology with other Sino-Tibetan languages. He has striven in this dictionary to provide a collection of 'the earliest strata of the Chinese language' (vii), the language written 3,000 years ago.

Early Zhou Chinese in this dictionary comes from the Western Zhou bronze inscriptions and other texts (such as the 'Book of Songs' and the 'Book of Documents') that date from about 1050 to 770 B.C. The dictionary also includes words that were used in the earlier Shang Dynasty bone inscriptions (ca. 1250-1050 B.C.) and those used after the Zhou period in Classical Chinese—words being assumed to have been present during the intervening Zhou period also. Meanings are gleaned from several sources including Han glosses, which themselves are sometimes not in agreement about a word's meaning. Many references to other Chinese dictionaries, concordances, and other aids are also included with each entry.

There is an emphasis on the words as sounds and not as graphs in this dictionary. The sounds also represent a challenge; he views the phonological shape of the words in this dictionary as 'more or less theoretical reconstructions' (p. vii). Even when the meanings of graphs are perfectly clear, if the sounds are unknown the word is not included in the dictionary. Thus this dictionary is not indexed by the Chinese graphs (as are most Chinese dictionaries), but by the words of the language. He also has purposely chosen 'as wide a spectrum of examples from the texts as possible in order to illustrate the semantic and syntactic contexts in which a word occurs' (viii).

The front matter of the book consists of:

1) a preface that explains Schuessler's purposes for this dictionary
2) a lengthy introduction that introduces identification of words, transcriptions, the language of the sources, morphology, syntax, a survey of EZ texts, word classes, the gloss, graph references, and example sentences
3) a two-page table of abbreviations and symbols
4) a bibliography of works cited
5) a chronology of sources
6) a table of 'Heavenly stems and earthly branches' (special numbers for telling time, dates, years, a person's age, etc.)

The next 876 pages of the book are the dictionary. Entries within the dictionary itself are arranged alphabetically according to the pinyin transcription of the words. A typical entry includes:

1) the entry itself (with homophones distinguished by trailing numbers, e.g., 'duo 1', 'duo 2', etc.; four tones are marked)
2) the Chinese graph
3) a Middle Chinese reconstruction
4) an Old Chinese reconstruction—sometimes two possibilities (Schuessler notes that some have strong correspondences with Tibeto-Burman cognates)
5) the class of the word based on syntactic and semantic usage
6) the gloss in English, and its source if the gloss is doubtful
7) graph references (such as Harvard Yenching concordance numbers, etc.)
8) the example sentences written in Chinese characters, with references and translation for each sentence.

There are 75 items in the bibliography, including works in English, Chinese, German, French, and Japanese. Publication dates range from 1928 to the 1980's.

Entries are easy to find and understand. It is also easy to follow the references within the entries. However, the dictionary is definitely specialized in its content. Obviously it is useful primarily to those who want a handy reference to ancient Chinese words. Others who contemplate compiling a similar dictionary could also benefit from study of this work. In addition, this book could be helpful for Sino-Tibetan and Tibeto-Burman scholars as they seek to reconstruct roots and compare vocabulary from their language since Chinese is a Sino-Tibetan language.

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LASSO XXIV

The Linguistic Association of the Southwest will hold its 24th annual meeting October 6-8, 1995 in Las Cruces, New Mexico. Further information will be given in subsequent issues of ***Notes on Linguistics***, or contact: Garland D. Bills, Executive Director LASSO, Department of Linguistics, University of New Mexico, Albuquerque, NM 87131-1196; e-mail: gbills@bootes.unm.edu

Fourth International Symposium on Language and Linguistics: Pan-Asiatic Linguistics—January 8-10, 1996. Institute of Language and Culture for Rural Development, Mahidol University, Bangkok, Thailand

Topics: Language comparison, Language description, and Language and related sciences such as Computational Linguistics, Pragmatics, Sociolinguistics, Psycholinguistics, Neurolinguistics, Ethnolinguistics.

4th International Cognitive Linguistics Association
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Early registration (before May 1) $75 for ICLA members and $130 for nonmembers. Late fee—$25. Student registration $24. Please contact: Sherman Wilcox ICLA-95, Dept. of Linguistics, University of New Mexico, Albuquerque, NM 87131. Phone: (505) 277-6353; Fax: (505) 277-6355; e-mail: wilcox@mail.unm.edu.

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Bates, Madeleine and Ralph M. Weischedel, eds. Challenges in natural language processing. 1993. New York: Cambridge University Press. 296 pp. Hardcover $49.95.

Bauer, Brigitte L. M. 1995. The emergence and development of SVO Patterning in Latin and French: Diachronic and Psycholinguistic Perspectives. 1995. New York: Oxford University Press. 242 pp. Cloth $45.00.

Chafe, Wallace. Discourse, Consciousness, and Time: The Flow and displacement of conscious experience in speaking and writing. 1994. Chicago: The University of Chicago Press. 327 pp. Paper $24.95.

Cowper, Elizabeth A. A concise introduction to syntactic theory: The Government-binding approach. 1992. Chicago: The University of Chicago Press. 205 pp.

den Dikken, Marcel. Particles: On the syntax of verb-particle, triadic, and causative constructions (Oxford studies in comparative syntax). 1995. New York: Cambridge University Press. 288 pp. Cloth $45.00

King, Alan R. The Basque language: A practical introduction. 1994. Reno: University of Nevada Press. 463 pp. Cloth $60.00.

Matthews, P. H. Grammatical theory in the United States from Bloomfield to Chomsky. 1993. New York: Cambridge University Press. 272 pp.

McGarry, Richard G. The subtle slant: A cross-linguistic discourse analysis model for evaluating interethnic conflict in the press. 1994. Boone, NC: Parkway Publishers. 195 pp. Hard cover $35.00 U.S.; $45.00 outside the U.S.

McGregor, William. Warrwa. (Languages of the World/Materials 89). Newcastle: Lincom Europa. Unterschleissheim/ Müchen, Germany. 64 pp. Paper $13.50, DM 23.80, £9.50.

Nerbonne, John, et al, eds. German in head-driven phrase structure grammar. 1994. (CSLI Lecture Notes No. 46). Stanford: CSLI Publications. 404 pp. Paper $22.25.

Ojeda, Almerindo. Linguistic individuals. 1993. (CSLI Lecture Notes Number 31). 212 pp. Paper $17.95.

Reports from Uppsala University Linguistics (RUUL No. 26). 1994. Papers by Ingrid Björk (in Swedish), Eva Wikholm (in Swedish), Sven Öhman, John

Sõren Pettersson, Anju Saxena. Uppsala, Sweden: Dept. of Linguistics, Uppsala University. 111 pp.

SALSA I. Proceedings of the first annual symposium about language and society—Austin (Volume 33, Texas Linguistic Forum). 1993. Robin Queen and Rusty Barrett, eds. Austin: University of Texas, Dept. of Linguistics. 253 pp.

SALSA II. Proceedings of the second annual symposium about language and society—Austin (Volume 34, Texas Linguistic Forum). 1994. Pamela Silberman and Jonathan D. Loftin, eds. Austin: University of Texas, Dept. of Linguistics. 276 pp.

Sampson, Geoffrey. English for the computer: The SUSANNE corpus and analytic scheme. 1995. New York: Clarendon Press, Oxford. 499 pp. Cloth $90.00

Santa Barbara papers in linguistics vol. 5. Iwasaki, Shoichi, et al, eds. 1994. East Asian linguistics. CA: Linguistic Department, University of California, Santa Barbara. 263 pp. $15.00

Santa Barbara papers in linguistics, vol. 6. Genetti, Carol, ed. 1994. Aspects of Nepali grammar. CA: Linguistic Department, University of California, Santa Barbara. 248 pp. $15.00

Scharma, J. C., ed. 1992. From sound to discourse: A tagmemic approach to Indian languages. xxiv, 313 pp. (Contents include two articles by Kenneth L. Pike: 1. Recent developments in tagmemics; 2. An autobiographical note on my experience with tone languages.) Manasagangotri, Mysore: Central Institute of Indian Languages. 313 pp. Paper $5.00.

Troelstra, A. S. 1992. Lecture notes: Lectures on linear logic. (CSLI Lecture Notes No. 29) Stanford, CA: Center for the Study of Language and Information, Stanford. 200 pp. Hardcover $49.95; Paper $18.95.

UCL Working papers in linguistics. London: Dept. of Phonetics and Linguistics, University College London:

Vol. 2. 1990. Includes seven papers on relevance theory, five papers on GB syntax, and six 'general' papers. 372 pp.

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Vol. 6. 1994. Includes twelve papers on syntax, four papers on pragmatics, and three papers on phonology. 552 pp. ■

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From the Linguistics Coordinator

I'm pleased to introduce a newly appointed SIL International Linguistics Consultant, Tom Payne (no kin relation to me, by the way). Tom has a Ph.D. in linguistics from UCLA. He has done linguistic work in the Philippines, South America, and most recently in Africa. He lives in Eugene, Oregon and he has Adjunct Faculty status at the University of Oregon.

Tom has served on staff at Oregon SIL for a number of years and regularly teaches what is, in my opinion, one of SIL's most useful advanced grammar courses. Along with that course, he also runs a Workshop in Grammatical Description each summer. In this workshop he helps experienced linguists do ground work for production of a reference grammar or sketch in the language they are researching.

In his work as an International Linguistics Consultant, Tom will focus on promoting the production of reference grammars among SIL teams. So in this issue of *Notes on Linguistics*, to kick things off, I have asked Tom to share his ideas about reference grammars. I'm hoping that with the influence of Tom and others, more SIL field teams will produce these sorts of grammars which will be an important addition to worldwide linguistic knowledge.

—David Payne

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to the following SIL members recently completing PhD degrees in Linguistics:

Dr. Fraser Bennett (Mainland Southeast Asia Group), Indiana University
Dr. Myles Leitch (Congo/Western Zaire Group), University of British Columbia
Dr. Brian O'Herin (North Eurasia Group), University of California, Santa Cruz

WinVocab—A software announcement

Geoffrey Hunt
SIL—Eurasia Area

Philip Brassett (the author of CECIL, WinCECIL, etc.) has supplied us with another program, WinVocab, and this has been put in the ICS Software Library (Internatonal Computer Services, JAARS, Box 248, Waxhaw, NC 28173 or Internet email: icscust@a1.jaars.sil.org). The program is for anyone who wishes to learn the vocabulary of a particular language by building a simple lexical database, or by using one of the supplied databases, or by starting with a Standard Format lexical database, such as produced by Shoebox, and converting this into the simple format required by the program.

There are several possible ways to use the program and these are described in the on-disk documentation. The method I have found to be most helpful I would describe as 'modified random testing'—it remembers how well you have done on previous tests of a particular lexical item.

The program requires Windows 3.1 or later and a 386 computer or better. If Windows audio (WAV) files are available for any of the lexical entries, the program can replay these on request. (Note: a forthcoming program from ICS will convert CECIL utterance files to WAV format.)

The program was primarily developed by Philip to help him learn Mandarin, the traditional Chinese characters being supplied by the Chinese version of Windows. The Mandarin lexical database is provided on the disk, as well as lexical databases for New Testament Greek and very basic Spanish. If any user produces a lexical database that has potentially wide usage, it could be added to the distribution disk.

Reference grammars

Thomas E. Payne
SIL—International Linguistics Consultant and Oregon SIL

1. Introduction. With approximately 6,000 distinct languages spoken worldwide (Grimes 1988), 4,000 with little or no written records, the need for widespread descriptive linguistics is imperative. To be a speaker of one of these 4,000 or so 'underdeveloped' languages in 1995 is often to live in a world in which you and everything you hold dear is despised, undervalued and dismissed by those around you. It is difficult for many to comprehend the psychological and spiritual pressure this puts on a person. The effect is to crush human potential, fulfillment, and joy.

As an underlying principle, we believe that all languages are coequal reflections of human creative, intellectual, and cognitive capacity. All are significant and deserve to be treated with dignity and respect, even though some may be spoken by very few and possibly powerless individuals. Recently, however, the tragedy of language underdevelopment and extinction and the concomitant urgency of descriptive linguistics has been recognized by the academic world at large. Krauss (1992) estimates that 3,000 of the 6,000 or so languages spoken today will become extinct in the next century. When a language dies without written records, all potential for enriching human experience embodied in the oral tradition and wisdom of that culture is lost forever. Hale (1992) effectively argues that the loss of diversity that language extinction represents is a scientific and human tragedy. In recognition of this situation, the Linguistic Society of America has established a 'Committee on Endangered Languages and their Preservation'. Also, the 'Comité International des Linguistes' chose 'Endangered Languages' as the general theme of the 15th International Congress of Linguists held in August 1992.

Because of a fundamental commitment to the ultimate value of human beings, cultures, and languages, linguistic field workers have always given priority to the creation of descriptive materials such as dictionaries, grammars, and indigenous literature. The mere existence of a good dictionary and grammatical description confers a certain status on a language that may have previously been considered to be merely 'grunts and whistles'. Furthermore, the products of descriptive linguistic research constitute part of the reference material necessary to develop indigenous educational materials and written literature. Good linguistic research communicates to minority language speakers and to surrounding groups that the minority language is viable and worthy of respect. Though descriptive linguistics alone will not solve the problems of language and cultural extinction, it is an important part of the solution.

The triad of dictionary, texts, and grammar has traditionally been the minimum for a language to be considered 'documented'. Of these three, the grammar is the centerpiece. It is the document that unites the other two, expressing the regularities and idiosyncrasies that allow speakers of a language to combine words into coherent and meaningful utterances, conversations, and texts. In this article I will discuss certain characteristics of reference grammars and will try to describe their importance for a linguistic field worker's language program, development of a minority language, and the enterprise of scientific linguistics.

2. What is a Reference Grammar. In this article I am using the term 'grammar' to refer to a learning tool, normally a book. The word 'grammar' has been used in many other ways, most significantly to mean 'the set of rules (or habit patterns) in speakers' minds that allow them to produce and recognize acceptable utterances in their language'. From this point of view a written grammar is a formal representation of these internalized mental rules. It provides a list of mental rules and structures, usually expressed in some mathematical formalism. A reference grammar is not this kind of representation. Rather, a reference grammar is a more prose-like description of the major grammatical constructions, illustrated with lots of examples. Sometimes simple formalisms are invoked for expository purposes but no claims need be made that these formalisms necessarily represent or model rules that speakers have 'in their heads'.

Reference grammars are most insightfully defined in opposition to pedagogical grammars. A pedagogical grammar is designed to teach someone how to use a language, whereas a reference grammar is designed to teach someone about the language and to give readers a reference tool for looking up specific details of the language. The form that each of these types of grammar takes reflects these distinct functions. For example, pedagogical grammars are typically organized with the structures perceived by the author as the 'easiest' or most useful earlier. Chapters tend to be short and to contain very brief grammatical explanations in terms anyone should be able to understand. The bulk of any chapter in a pedagogical grammar consists of exercises that help the reader practice and internalize the various structures as well as vocabulary and pronunciation. They are not meant to provide an inclusive grammatical overview of the language.

Reference grammars, on the other hand, are traditionally organized according to universal structural categories such as 'noun phrases', 'verb phrases', 'relative clauses', etc. Chapters tend to be longer than those in a pedagogical grammar, and they consist mostly of explanation plus one or two examples of every point mentioned. Furthermore, reference grammars are written in a style that is not necessarily meant to be understood by everyone. Rather, they appeal to individuals who have some understanding of language as a universal phenomenon and who wish to learn how the particular language described fits into universal understandings of human language.

In addition to the major distinction between reference grammars and pedagogical grammars, there are different kinds of reference grammars. Again, the formal characteristics of any particular grammar reflect its intended function. For example, some reference grammars are meant to be used by native speakers of the language that is the subject matter of the grammar. These grammars may be organized in terms of the forms that the readers already know how to use but just are not aware of their significance to the grammar as a whole. Thus a reference grammar of English for English speakers may contain sections on *the* and *a*. These are forms English speakers use intuitively but do not really understand very well. Other reference grammars may be for linguists who want information on the language for comparative purposes. Such a grammar would best be structured in terms of some universal outline designed to help the reader make meaningful comparisons between the language described and other languages. In such a grammar of English, *the* and *a* may be treated in a section on 'identifiability'. Reference grammars of other languages may treat the order of nouns in a sentence or some bound morphological markers under this same heading.

Although reference grammars vary considerably in length and scope, a good one should consist minimally of the following substantive parts:

2.1. Introduction. An introductory section or chapter should provide essential background material on the language and its speakers, including genetic affiliation, sociolinguistic situation (demography, dialects), ethnography, and a brief review of previous literature. This section does not have to be very long, but it is absolutely necessary in order to orient the reader to the language as a vehicle for communication used by real people.

Too often linguists are prone to think of languages as abstract symbolic systems rather than as dynamic tools used by people in society.

2.2. Body. The main part of the grammar is usually organized according to some structural organizing principle. One principle that I advocate is to begin with 'smaller' units of structure and to work one's way up to the larger and normally more complex units, e.g. phonemes, nouns, nominal predications, verbs, verbal predications, compound predications, complex predications, and discourse structure. As structural complexity increases it becomes less and less feasible to organize the grammar according to structure alone. Therefore I suggest that later chapters be organized according to common functions such as 'detransitivization', 'causativization', 'relativization', etc. There are other possible organizing principles, and to a great extent the organization of a particular grammar should reflect the unique characteristics of the language itself.

2.3. Index. A good index is what turns an ordinary grammar into a true reference grammar. One 'test' I often apply to published grammars is to look up some grammatical feature that ought to be treated in any reference grammar, such as relative clauses or causatives, and check on how long it takes me to find an example of that feature. If it takes longer than five minutes, the grammar fails the test. Since the purpose of a reference grammar is to make detailed information on a language accessible, a good measure of its success in accomplishing its intended purpose is how easily that detailed information can be found. Without a good index, the best reference grammar in the world is almost useless.

2.4. Bibliography. The grammar should contain a bibliography of *all* previous literature on the language, plus other works cited in the grammar.

2.5. Abbreviations. All descriptive linguistic work involves abbreviations. A good informative list of all the abbreviations found in the grammar is an important tool to allow the reader to comprehend and use it.

3. Who writes reference grammars? Ideally, every language on earth should be documented with a completely inclusive reference grammar done by a professional linguist who is a native speaker of the language being described. In reality linguistics must be satisfied with compromise solutions, namèly *many* of the languages on earth documented with *fairly* inclusive reference grammars done by *trained* field wokers who are *fluent* speakers. The fact that there are extensive helps available now, combined with the urgency of the task, makes it possible and necessary for field workers without graduate degrees in linguistics, and who are not native speakers, to write insightful and useful reference grammars.

In order to write a reference grammar a person must be trained in descriptive linguistics. At the minimum, a field worker should have courses in phonetics, phonology, morphology, syntax, semantics, and field methods. These courses form the backbone of any master's degree program in linguistics. But even without the other courses, seminars, and research projects that make up an MA program, these courses combined with practical help will equip the field worker to produce a suitable reference grammar. Additional courses in language learning and anthropology are also necessary for field workers planning to do descriptive work in a language spoken by an unfamiliar culture group.

Work on a reference grammar may begin at the very earliest stages of a field worker's experience with a language. However, in most cases field workers will need at least one year of consistent exposure to the language before analyses can be considered reliable. Ideally, the linguistic field worker should be a native speaker of the language being described. In any case, the author of the grammar should be comfortable speaking the language and should have an ongoing presence and rapport with the language community, as well as relevant scholarly communities, before the grammar is published.

4. Who reads reference grammars? Reference grammars are read by the same kinds of people that write them, namely linguists, anthropologists, and governmental and NGO workers. Governmental and NGO workers use reference grammars as a basic reference work in the process of teaching and creating educational materials. Whereas a pedagogical grammar is useful for learning to use a language, a reference grammar is needed to check and translate specific texts. For example, in wanting to know how to say 'that's the man whose name I can never remember', I probably would not find that particular form in the pedagogical grammar. However, the reference grammar combined with the dictionary should give the tools needed to construct the clause even if the clause itself does not appear in the grammar. It is very difficult to look up grammar points in most pedagogical grammars.

Cultural anthropologists use reference grammars as part of the essential reference material on a language and culture to be studied. Language is a window on the mind and on culture. Often, cultural patterns are revealed in language that could never be observed by an anthropologist who takes a purely external perspective.

Finally, linguists and other cognitive scientists read reference grammars as sources of insight into the principles that underlie human cognition. From the scientific perspective, good linguistic descriptions constitute the raw data for much research into the organization of the human mind. The tension between universality and diversity of language constitutes the subject matter for linguistics as a science. The central questions are: 'How are all languages alike?' and 'What are the limits to their variation?' Needless to say, from this perspective, a corpus of reliable and usable data from as many languages as possible is essential. With every language that becomes extinct, the potential data source for this enterprise becomes narrower.

5. Conclusion. A good reference grammar is an essential part of all field linguistic programs. The production of a reference grammar is a service to speakers of undervalued languages in that it helps to affirm the worth of the language, as well as providing valuable documentation of the language for future generations. Second, producing a reference grammar is a service to scholars, development workers, and missionaries who may need information on a language for their own research, language learning, teaching, and literature development. Finally, producing a reference grammar fills a very important role in the field worker's own language program. The best way to learn something is to try to explain it to someone else. Putting one's thoughts down on paper in the structured format of a reference grammar is the best way for field linguists to be sure that they fully understand the patterns of the language. The process forces one to organize and contemplate data over and over again and to analyze details that may otherwise be purely intuitive. In so doing, the field worker finds holes in those intuitive understandings thereby building a more complete and accurate personal representation of the grammar of the language.

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Endonyms and exonyms

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1. As we all know, names given to languages can be problematic. I have found that it helps to use the distinction between 'endonym' (the name given to a language by its own speakers) from 'exonym' (the name given to a language by speakers of some other language). Another thing I have found is that things aren't that simple—but then they never are.

Thus, endonymically we call English *English*, and exonymically we call German *German*, which Germans endonymically call *Deutsch*. This to English ears in a state of 'endo-exo' confusion can sound like its etymological cognate *Dutch*, and it actually did to those who coined the phrase *the Pennsylvania Dutch.*

2. But then there is a more serious complication: endonyms for many languages may also connote 'behavior' or 'way of life', and thus culture and nation are somehow merged in people's understanding, or lack thereof. Thus the Dutch sing in their national anthem the words of William of Nassau wherein that Father of the Fatherland declares himself to be *van duytschen bloed* 'of Dutch blood', with the word *duytsch*, now surviving as *diets*, a word which means something like 'clear'. Dutchmen who still believe that clarity is a special virtue of their language (only few now, it is gratifying to report) suffer from two delusions: first, that any language is 'clear'; second, and worse, that Dutch is. Endonymic enthusiasm may apply to any language as supposedly a (or the) paragon of clarity.

Another complication is that exonyms may be used as by-words of reproach. For example, there are a number of expressions in British English which are unfavorable to the Dutch: *to talk like a Dutch uncle* ('to moralize'), *Dutch courage* ('the courage shown by someone inebriated'), and half a dozen others—all dating from those times when the British lost one war after another against the Dutch. American English has far fewer Dutch-bashing idioms: one of them is *to go Dutch*, indicating that the apparent host will not pick up any check except his own. Where the Americans say *jay walking,* the British say *Dutch crossing*. But such slurs are old: the Greeks found non-Greeks to be *barbaroi*, 'foreigners' (if not quite what we now call *barbarians*). Last century speakers of Javanese called Sundanese, a language adjacent to theirs and related to it, *bahasa gunung* 'mountain language' (not a compliment). But why go so far? When I was in grade school with one teacher none of us dared to mumble words under pain of being accused of talking 'Hottentot'.

3. Languages may be confused with nations. A dialect in The Netherlands close to the German border is virtually identical to the dialect across the border in Germany. According to linguists bound by nationhood this one dialect is supposed to consist of two—a 'Dutch' one and a 'German' one. Or consider this: a student of mine from Ivory Coast said 'French' when asked what his first language was, and then added, hesitatingly: 'Well, I guess I mean French is the national language'. The guess was not his, but his government's (or perhaps France's).

In the Philippines, the 'national' language is 'Philippino', to be spelled 'Filipino' if you write in Philippino, which is the name given to Tagalog by the exo-smitten authorities. They, incidentally, are the only ones to use *language* rather than *dialect*. That is, Philippinos call the 85 or so different languages in their nation *dialects*. *Dialect* is also the name of any language outside the Philippines. A man in Mindanao once told me that his (Dutch) employer, when mad, 'swears in his own dialect'. (Given the plethora of swear words in Dutch, and the irascibility of the employer—whom I knew—the man's expressions of anger must have been long strings of expletives.) But I am getting off my topic. The authorities mentioned utter their disquisitions about language in English, of course, which is the 'official' language of the nation—not Philippino *née* Tagalog.

Née—with that extra *e?* Yes, because language (or 'tongue') is frequently feminine endonymically, in languages having gender. Or metaphorically even in languages that don't (or do but only for humans), as in *mother tongue*. Whereas founders of nations beget 'fatherlands', the Father thereof is wedded to the 'mother tongue'. Thus, the mother tongue 'serves her lord', the fatherland, under continued ascendancy of the earlier colonizer's language.

4. No language, of course, has enough exonyms for the 6,000 or so other languages on the face of this earth. In some languages, some are established. Thus when English, French, German, and Indonesian linguists study, for example, Greek, their exonyms for that language will be *Greek,* *grecque, Griechisch* and *Yunani*, respectively. For lesser known languages there is variation between exonyms and endonyms. Thus in English we may call the language of the Sunda region in West-Java *Sundanese* exonymically, or *Sunda* (or *the Sunda language*) in approximate endonymicity. There is in these things a growing preference for the endonymic as a form of respect for the people concerned. Somehow *Sundanese* might sound as if speakers of English are somehow entitled to their own exonym for the Sunda language. While the respect is all right, such matters remain delicate. After all, we don't feel we should apply the same principle to languages of wealthy nations—we don't go around saying (in English) to Germans, Italians or Japanese that we are interested in *Deutsch, italiano*, or *nihongo*.

We do extend such endonymic favors to other languages. The stock example is that of Indonesian, which often continues to be called (in English, French, or German language contexts) by its endonym *bahasa Indonesia*. Some Indonesian linguists are irked by the implied esotericism and apparent yen for the exotic. They would prefer *Indonesian*, or *indonésien*, or *Indonesisch*—the respective exonyms, therefore. After all, these linguists say, no dissertation in English or French about Japanese would refer to *Nihongo* rather than to *Japanese* or *japonais*.

In Dutch I have often been asked whether I speak *bahasa*—that word, of course, simply means 'language'. I am often tempted to reply 'Oh yes, Dutch, for example'—but this would confront my pained looks with looks of puzzlement.

Indonesian is the language of the fifth most populous nation of the world and it seems strange to refer to it by its endonym in any other language that has an exonym for it.

5. Then again, endonyms may be the best names in 'exo-parlance'. Tok Pisin in Papua New Guinea has been variously called *Tok Boi* and *Melanesian Pidgin*, or even *Pidgin English*. I don't quite understand how English-based pidgins can be considered forms of 'English', but sociolinguists pluralize that name now and discourse learnedly about the 'Englishes' of this planet. Papua New Guinea English is definitely a form of English, as are Philippino English and Singapore English, but many speakers of Tok Pisin cannot speak Papua New Guinea English or any other form of the other assorted Englishes. *Tok Boi* is no longer used for Tok Pisin. It was a 'Margaret-Meadism', and not her best. Melanesian Pidgin

is in fact three pidgins: Tok Pisin, Solomon Islands Pidgin, and Bislama. Also, none of these three dialects is properly a 'pidgin' since various forms of them have been creolizing or decreolizing, or even both. Thus the endonym *Tok Pisin* seems to be the only eligible candidate for exonymic status. As I ponder these things, however, it occurs to me that the time may come when there are suitable exonyms for Tok Pisin in languages like English or French or Japanese. At least so I hope.

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LASSO XXIV
24th Annual Meeting of the Linguistic Association of the Southwest
New Mexico State University, Las Cruces, New Mexico October 6-8, 1995

Invited Speaker: George Lakoff, University of California, Berkeley. For more information contact Garland D. Bills; Executive Director, LASSO; Dept. of Linguistics; University of New Mexico; Albuquerque, NM 87131-1196 USA. Tel. 505-277-7416, e-mail: gbills@.unm.edu

Fourth International Symposium on Language and Linguistics
PAN-ASIATIC LINGUISTICS
Central Plaza Hotel, Bangkok, Thailand - January 8-10, 1996
Hosted by the Institute of Language and Culture for Rural Development
Mahidol University, Thailand

This symposium, organized once every four years in Thailand, brings together scholars interested in linguistic studies of Asian languages from Japan to the Middle East, and from Siberia to Indonesia; all are welcome.

Registration before Aug. 31, 1995 $130; after that date $150. Submission of abstracts in English Jan. 31. 1995; submission of papers August 31, 1995. Symposium Language—English/French. All correspondence should be made to: Dr. Suwilai Premsrirat; 'Pan-Asiatic Linguistics Symposium' Institute of Language & Culture for Rural Deveopment; Mahidol University at Salaya; Nakornpathom 73170, Thailand. Tel. 441-9514; e-mail oissj@chulkn.chula.ac.th. Fax (662) 441-9517

Dissertation Abstracts

Voice and ergativity in Karao

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Ph.D. University of Oregon, 1994

This study is an investigation of voice and ergativity in Karao, an Austronesian language of the Northern Philippines. Karao has a typical Philippine-type voice system. The voice system of Philippine languages has been the subject of debate for nearly ninety years. Linguists investigating Philippine languages continue to disagree about fundamental issues such as which verbal clause type is the active voice construction, which argument is the subject or even if Philippine languages have subjects, and whether nominal markers follow a nominative or an ergative case marking pattern. The purpose of this study is to examine the structures and functions of the Karao voice system and to relate the findings to previous investigations of voice systems in other Philippine languages and to two general issues in linguistics: nominative and ergative typology, and the grammatical relations subject and object. The major claims of the study are that Karao is a morphologically ergative language; it has two grammatical relations, a subject and an object; and it has a mixed pattern of syntactic control. The object is a strong grammatical relation, controlling a number of syntactic processes, some of which are controlled only by the object, and others by both the object and the single required argument of an intransitive clause; the subject is a weak grammatical relation that exclusively controls only two syntactic processes.

Both structural and functional criteria are employed in the analysis of the Karao voice system. A structural analysis of the morphosyntax of clause types encoding semantically transitive verbs suggests that what has traditionally been referred to as the 'goal-focus' construction is the active voice construction. This analysis is supported by an investigation of the voice functions of clause types based on various quantitative measures applied to natural text. Verb affixes are analyzed as having a semantic role function; specifically, an affix on the verb identifies the semantic role of the absolutive NP. The correlation between verb classes, semantic roles, and verb affixes is accounted for by means of a restricted version of localist case grammar which limits the core semantic roles of verbs to Agent, Theme, and Location. Grammatical relations and patterns of syntactic control are

identified by investigating a range of coding properties and syntactic processes.

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A grammar of Mangap-Mbula: An Austronesian language of Papua New Guinea

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Ph.D. Australian National University, 1991

The aim of this work is to provide a comprehensive and rigorous synchronic description of grammatical structures and their meanings in Mangap-Mbula, an Austronesian language spoken in the Morobe Province of Papua New Guinea. Occasional reference is also made to diachronic matters when these touch upon or help to explain synchronic patterns.

In the introductory chapter, the linguistic, geographic, and cultural setting of Mangap-Mbula is described, significant dialect variations are outlined, previously published material on the language is noted, the nature and sources of the data upon which the present analysis is based are described, and a brief overview of Mangap-Mbula grammar is given.

The second chapter presents a description of the sound system of the language in an autosegmental phonological framework. The description includes: 1) units distinguished, 2) allophonic and morphophonemic alternations, and 3) segmental composition of morphemes.

The third chapter is a description of the morphology of the language. It characterizes both the structure of words and the various word classes which are distinguished in the language. Because of their complexity, adverbs receive especially detailed treatment.

The fourth chapter is a presentation of phrase structure up to the level of simple sentences and complement clauses. The theoretical model used is a modified version of the X-bar theory of phrase structure as outlined in Gazdar, Klein, Pullum, and Sag (1985) and Pollard and Sag (1987), in which formal statements are supplemented by prosc descriptions. The major modification consists in the replacement of the verb phrase constituent by a predicate phrase in order to more naturally account for non-verbal predicates.

The fifth chapter describes mechanisms for combining simpler sentences into more complex ones. It, therefore, treats relative clauses, complement clauses, and various types of sentential connectives. The system of connectives in Mangap-Mbula is relatively intricate, but attempts have been made to delineate precisely the meaning differences between various forms.

The sixth and final chapter is a study of various means of referring. In it are treatments of thematic devices, a statistical study of the frequencies and continuity characteristics of various encodings of clausal arguments, and a description of the principal devices for encoding emphasis.

There are four Appendices. The first one presents evidence for surface phonemic contrasts, while the second one consists of a reconstruction of the historical developments of consonant and vowel phonemes from Proto-Oceanic. The third Appendix is entitled 'On how to say things' and consists of a semantically organized set of examples. The fourth Appendix consists of three glossed texts.

Throughout the grammar, strong emphasis is placed upon precisely characterizing the meanings of various forms and structures.

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Ngiti: A Central-Sudanic language of Zaire

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This dissertation is a descriptive study of Ngiti, a Central-Sudanic language spoken by an estimated 100,000 people in North-Eastern Zaire. If at all mentioned in previous classifications, it was classified as a dialect of Lendu. In the first chapter I present a background study of the different classifications and compare the different regional variants of Lendu with Ngiti, which in a number of aspects differs from the regional variants of Lendu and should therefore be considered a separate language.

Chapters two, three, and four treat different aspects of the phonology. The phonological structure of Ngiti is described in chapter two. As follow-up on an article I wrote several years ago, I did some instrumental studies to show the contrast between voiced and voiceless implosives. Chapter three treats phonological processes: vowel harmony, height assimilation, and morphophonological processes which take place between vowels at morpheme boundaries. Chapter four presents the tone system including a short introduction in the function of tone in different parts of the grammar, specifically the verb system. Details are presented in the relevant chapters of the grammar.

Chapters four through nine treat different aspects of the grammar of Ngiti. The description focuses on the morphological structure, but in more cases, mention is made of how the different word classes function within the clause, specifically with respect to word order.

Chapter five presents the nominal system, with as special point of interest the distinction between alienable and inalienable nouns, a distinction made on the basis of their different behavior in possessive constructions.

Chapter six treats the pronominal system, including a complete system of logophoric pronouns.

Chapter seven is a study of verbs and verb morphology, specifically a classification into ten classes in order to account for the different tonal alternations, the inflectional system of tenses and aspects, and derivational morphology. An appendix is added which functions as reference for the different conjugational forms.

Ngiti is a postpositional language. These are treated in chapter eight.

Chapter nine treats the remaining word classes:
* adjectives and adverbs, which cannot be separated morphologically, and which are therefore joined and named 'modifiers'
* numerals: both the present and the traditional counting systems are described
* verbal modifiers, in fact prenominal relative clauses of intransitive verbs, formed by reduplication of the verb stem, with a description of the morphophonological and morphotonological processes which take place between the two occurrences of the verb stem
* demonstratives
* question words
* particles and conjunctions

Five texts (folk tales, written by different Ngiti speakers) and some proverbs with interlinear translation are added at the end.

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Reports

21st Annual Meeting of Berkeley Linguistics Society

Sherri Brainard
SIL—Philippines Branch

On February 17-20, 1995, this meeting was held at the University of California at Berkeley and included a general session, a special session on 'Discourse in Southeast Asian languages', and a parasession on 'Historical issues in sociolinguistics/social issues in historical linguistics'.

At the general session thirty-two papers were presented; invited speakers were Jane Grimshaw, Michael Silverstein, and Young-Mee Cho. Notable were the number of papers, syntactic as well as phonological, that employed Optimality Theory as a theoretical framework.

At the parasession on sociolinguistics and historical linguistics, 12 papers were presented; invited speakers were Suzanne Romaine, John McWhorter, and Derek Nurse. McWhorter gave an excellent and entertaining presentation on the contributions Creole studies could make to historical linguistics.

At the special session on discourse, fourteen papers were presented; invited speakers were A. L. Becker, Yung-O Biq, Jack Bilmes, and David Solnit. Altogether about 25 participants attended the session. Papers for this session represented the following languages: Javanese, Acehnese, Thai, Kayah Li, Khmer, Mandarin, Japanese, Tagalog, and Upper Tanudan Kalinga (Philippines). The papers covered an eclectic array of topics: deixis and demonstratives, participant identification and coreference, causal sequencing, discourse function of particles, functions of perfectivity in discourse, language choice and discourse structures in a multilingual situation, parallelism in discourse structure, structure of a negotiation text, and reflections on the problems of translation.

Several papers are of potential interest to translators in that they are concerned with the selection of correct surface forms for tracking referents and propositions. Noteworthy is Stephen Fincke's discussion of the selection of demonstratives in Tagalog. He argued that demonstratives can be used in discourse to differentiate propositions by associating a proposition with the participant who made it available to the current interaction. Yili Shi discussed the relationship between Ellen Prince's taxonomy of assumed familiarity (or degrees of givenness) and word order in Chinese. A low degree of familiarity, or givenness, triggers one word order; a higher degree of familiarity triggers a second word order. Michael Ewing suggested that demonstratives and a generic possessive suffix in Cirebon Javanese indicate different ways in which a referent in discourse is made identifiable. Referents marked with demonstratives are those whose identity is based on their existence in the physical context or previous mention in the discourse. Referents marked with the possessive suffix are those whose identity is based on anchoring to another referent that has already been identified or through association with a cognitive frame or cultural knowledge.

Papers from the special session will be published as a separate volume by the Berkeley Linguistics Society. For information about the publication of these papers and papers presented at other sessions of this 21st Annual Meeting, contact Berkeley Linguistics Society, 2337 Dwinelle Hall, University of California, Berkeley, CA 94720 USA.

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Conference of College Composition and Communication
46th Annual Convention - March 23-25, 1995, Washington, DC

Kenneth L. Pike
SIL President Emeritus

The conference had perhaps 400 sessions, about 2,000 speakers—eighty of the sessions were said to be dealing with the use of Internet and E-mail, in teaching freshman composition. They assume that a computer 'revolution' is underway in the teaching profession.

Thursday's session on March 23 was on 'Tagmemics: Rediscovery and change' arranged by Bruce L. Edwards of Bowling Green State University, Ohio, Department of English. I was the first speaker—on the history of the rhetoric work done with Young, Becker, and Pike's work before that—with some possible developments in the future in terms of experimental phonetics or intonation. The second speaker was Bruce Edwards; third speaker, Barbara Toth, Bowling Green; fourth speaker, Peter Schreffler, Utica, N.Y.; fifth speaker, Carol S. O'Shea, Owens Community College, Toledo, Ohio.

Result: Satisfactory public relations; meeting various old colleagues or students from Michigan and the students of those students. They had some dreams of re-establishing Tagmemics as a basis of rhetoric.

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Report of Georgetown University Round Table on languages and linguistics Pre-conference session on The History of Linguistics

March 20, 1995

Frank Robbins
SIL President

This pre-conference session on the history of linguistics was organized by Dr. Kurt Jankowsky of Georgetown University. It was one of a number of pre-sessions held that day and the day following which ran simultaneously. Our pre-session was divided into three sections, the first of which I chaired.

My paper, 'Scope of research and field work of SIL', came during the second and seemed to be well received. I sensed appreciation for SIL's desire to share the results of its research, and enthusiasm for the proposed Center at UTA. Donna Christian, the new President of the Center for Applied Linguistics, chaired that session.

In the final session, chaired by Professor Jankowsky, the following papers were read: Kenneth L. Pike, 'Tagmemics in retrospect'; Walter A. Cook, S.J., 'The rise of computational linguistics'; Thom Huebner, 'The history of sociolinguistics in North America and the contributions of Charles A. Ferguson'. There were perhaps forty or more present during those sessions.

Following that a reception was held in the faculty lounge for Pike, Cook, and Ferguson with Jankowsky serving as MC. James Alatis, now Senior Advisor to the Executive Vice President for International Language Programs and Research and chair of the entire Round Table, made remarks on behalf of Father Cook; Donna Christian gave remarks on behalf of Charles Ferguson, and Dr. Charles Kreidler, an Emeritus Linguistics Professor from Georgetown and a former student of Ken Pike, gave remarks which were quite eloquent. I then awarded plaques to the three honorees after first introducing Mr. Alfredo Frierro from the Mexican Embassy, who read a letter from Miguel Leon Portilla for Pike.

It is interesting that all three of these honorees have not only been linguistics luminaries in the past generation, but also are very broad and inclusive in their interests and want to cope with linguistic complexity rather than to simplify it. They all three also are very people-oriented.

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Book Reviews

Studies in relational grammar 3. By Paul M. Postal and Brian D. Joseph: Chicago: The University of Chicago Press, 1990. Pp. xii, 390. Cloth $65.00, Paper $32.50.

Reviewed by J. ALBERT BICKFORD
SIL-Mexico and University of North Dakota

The third (and final) volume in the series 'Studies in relational grammar' (SRG3) will be of special interest to those who have studied relational grammar in the past, but haven't had the opportunity to keep up on more recent developments. There are several new proposals from the late 1980s offered in this volume which increase the range of phenomena that can be usefully and insightfully described in relational grammar (RG). At the same time, the book will also be of help to those who have had minor exposure to the framework in the past, since it is now in a mature phase with the basic concepts and notation largely standardized, eliminating much of the potentially confusing variation in approach that is apparent especially in the first volume.

RG as a theoretical framework has never tried to be a comprehensive theory of syntax, but rather has concentrated on phenomena that it claims can most insightfully be described in terms of grammatical relations which are undefined ('primitives') within the framework, not defined in terms of constituency, linear precedence, or other notions, and thus independent of them. As such, it is ideally suited for describing complex systems of agreement, case, voice and other valence change, and certain aspects of interclausal syntax, such as raising, control, and reflexivization.

Though never a dominant perspective in the theoretical world, it has had a major influence, and many concepts that were introduced within RG have been incorporated into other more widely-known frameworks such as Government and Binding, Lexical-Functional Grammar, and Head-driven Phrase Structure Grammar. Other frameworks are finally following RG's lead in investigating a wide range of languages. RG continues its good example in this volume with papers on Modern Greek, Japanese, Korean, Chamorro, K'ekchi, Tzotzil, and Southern Tiwa, as well as Spanish and French. For its own part, the RG community has been reaching out, too; the occasional 'Conferences on Relational Grammar', which started out strictly as get-togethers for RG insiders, have more recently actively solicited papers that examine grammatical relations from a wide variety of theoretical perspectives.

SRG3 received an extensive review in Language (LaPointe 1993). Though generally positive, LaPointe also points out some complaints that non-RG theorists have with the framework, and the review is worth reading if only for that reason. There is no need to duplicate this review's coverage here; instead I will focus on those matters of most interest to field linguists, especially theoretical developments since the publication of SRG2. You may also wish to refer to my earlier review of SRG1 and SRG2 (Bickford 1986).

An idea first suggested in SRG1 (Perlmutter and Postal 1983:118) was that when one nominal 'takes over' the grammatical relation of another, the second does not necessarily retreat to Chômeur, but can in some languages retreat to 3. This idea is exploited by Berinstein in SRG3 in her analysis of impersonal inversion in K'ekchi, in which she posits an initial 1 that retreats to 3 in response to the entrance of a dummy nominal as 1.

Aissen picks this up and incorporates it in her discussion of possible agreement systems. She claims that in all agreement systems only final terms can determine agreement on a verb. There are apparent exceptions to this, such as those termed 'brother-in-law' agreements in earlier RG work, and the similar cases as in K'ekchi where there is a retreat to 3 instead of to Chô. However, Aissen argues these can all be handled if we formalize them by allowing relevant features (of person, number, etc.) to pass to the dummy from the nominal it 'supplants' under certain conditions. In this way, the relevant features for agreement are always present in the final stratum, and her main generalization on what can determine agreement can be maintained while allowing a restricted class of 'nonregular' agreement.

Both Berinstein and Aissen find it useful to draw on Arc Pair Grammar (APG), a formalization of Relational Grammar, to represent their analyses. For example, the notion 'overrun' gives a precise characterization of the relationship that can informally be expressed as one arc 'taking over' the grammatical relation of another. The use of Arc Pair Grammar reaches its greatest development in Postal's analysis in SRG3 of some well-known but intractable facts about French cliticization; Postal includes a summary of the main elements of the theory as background both for his paper and the others that draw on APG concepts.

Since SRG2 was published, considerable work has been done on causatives and causative clause union. Gibson and Raposo (1986) have noted that there is greater typological diversity in causatives than had originally been thought possible, particularly in terms of the grammatical relation that the embedded 1 (the 'causee') assumes in the union clause. Gerdts's article in SRG3 exploits this range of variation in her analysis of Korean causatives. She argues that Korean allows the embedded 1 to become either a 3 in the union clause, or a Chômeur.

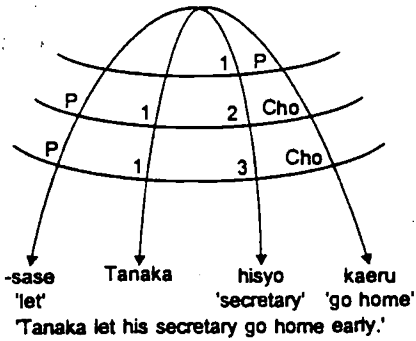

Figure 1

Alongside these concerns, Rosen (1983) has offered a significant reanalysis of causatives. Rosen proposed that they be represented as a single clause with two predicates, in which the the causative predicate puts the other predicate *en chômage*, eliminating the need for a clause union analysis. Dubinsky's article in SRG3 uses her approach in the analysis of causatives in Japanese. The initial 1 (the causee) demotes to 2 when the causative predicate enters with its own subject. Then under some circumstances, it demotes subsequently to 3. An example of this analysis, based on his diagram (84), is given in Figure 1.

Dubinsky's article also explores how lexical properties such as transitivity and selection of particular clause structures might be represented. This concern with lexical features is also reflected in Gonzalez's article, which describes a new twist on Inversion. In Chilean Spanish, as in many languages, only certain verbs can undergo inversion. The verb *querer* 'want' is normally not one of these. However when an inversion verb is embedded underneath *querer*, inversion can take place either in the embedded clause (as expected) or in the *querer*-clause, leading to systematic ambiguities which can be represented in a straightforward fashion in RG.

Another recent development is concern for the structure of constituents other than clauses. Postal and Aissen propose structures for cliticization and agreement affixation. Berinstein considers the internal structure of noun phrases, especially those which serve as 'camouflage' structures in which the head noun of the NP serves only to flag its final relation (such as prepositions is most languages); the 'real' constituent is superficially the possessor of the NP. Joseph, in order to handle some facts about ascensions in Modern Greek, suggests that prepositional phrases be analyzed much like clauses: the preposition heads a P arc, the object is a 2, and if the preposition has a clause as its initial object, a nominal may even ascend out of the clause to be the preposition's final object.

With all that is new, the essential elements and themes of RG which were apparent in the earlier volumes are still there:

- careful, systematic, and concise presentation of proposals and evidence for them (syntactic argumentation)
- sufficient formalism to make proposals clear, but not so much as to obscure the main points
- the claim that grammatical relations must be recognized on more than one level (strata) to fully understand syntax and morphology in many languages
- the accompanying claim that the initial ('deepest') level of grammatical relations is distinct from semantic representations such as thematic roles

Postal and Joseph have done an able job compiling RG work representative of the late 1980s, and I recommend it to field linguists who are facing similar analytical problems in the languages they study, or who simply want to learn what's happened in RG since SRG2.

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Stellenbosch papers in linguistics, No. 26 (SPIL). By RUDOLF P. BOTHA, ed. Stellenbosch, South Africa: University of Stellenbosch, 1993.

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Of the twenty-five previous issues of Stellenbosch papers in linguistics, some contain one longer contribution by one author, while most have articles by several authors. Issue 26 has three: 1) Rudolf P. Botha's 'Minding one's metatheory in doing morphology' (1-13); 2) John R. Taylor's 'Possessives and relevance' (14-34); 3) Mary-Ann Kemp's 'An analysis of vowel production of a profoundly hearing-impaired child before and after a cochlear multichannel implant' (35-58). Then follow the affiliations of these authors (59) and an overview of the contents of previous issues (60-4).

Here I will summarize and comment on the content of each article separately, then finish with remarks that bring them back together.

1. Botha. The subfield of morphology encompasses many manifestations with various theoretical stances to describe them. Thus, one can imagine several directions in which a paper entitled 'Minding one's metatheory in doing morphology' might go. At the very outset Botha makes it clear what aspect of morphology he has in mind by posing the following question:

1.1. 'Are syntax and word formation governed by similar rules or principles?' Botha does not believe that this question can be answered from a descriptive point of view as has been done in the past by linguists (left unnamed by Botha) who would let the facts speak for themselves, but rather it should be approached from a theoretical point of view whereby answers to the question will depend on the theory with which one chooses to work.

Botha also believes that where the distinction between syntax and word formation is to be drawn is also a theoretical issue, which leads to his main point:

1.2. 'Whether one considers the principles of syntax and word formation to be similar or different is codetermined by one's metatheoretical beliefs (which may be held implicitly only)'. To illustrate this point, Botha examines the ways in which the question has been answered within two different theoretical frameworks. As a concrete example, he takes verb-particle combinations (**look up, clean out,** etc.), which exhibit both phrase-like and word-like properties.

Botha first examines the lexicalist framework. After considering two contributions on verb-particle combinations, Botha concludes that this position leads to analyses characterized by conceptual redundancy and a concomitant loss of generalization; it underestimates the extent to which morphological words are similar to syntactic phrases. Then Botha takes up the syntacticist position, examining one contribution on verb-particle combinations, and concluding that this position is characterized by false generalization and concomitant ad hoc modification; it overestimates the extent to which morphological words are similar to syntactic phrases. Botha rightly states that to believe in either one of these positions, one must be willing to tolerate their respective weaknesses, and that the choice between them will rest on the metascientific values that one holds. In fact, one's values will determine not only the choice between these two theories, but also one's choice among all theories available to analyze morphosyntactic phenomena. Therefore, as Botha (9) concludes in the final line of his contribution, '... morphologists should mind their metatheory'.

If a morphologist chooses to work within a metatheoretical framework, which means proceeding deductively, then Botha's maxim is well worth heeding. After all, one's choice of theory will determine the metalanguage and the method to be used, and ultimately the conclusions to be about some morphosyntactic manifestation. (This choice often rests on values derived from intuition or even personal circumstances, such as when and from whom one learned to do linguistics.) And if it is in one's set of values to accept theoretical stances that account for some of the facts but not for others, and thus overall must be considered inadequate, then Botha is right in saying that one must rely on a subset of values to decide which position—here the lexicalist or the syntacticist—is more acceptable than the other. But what if we also consider that it might be within a one's values to accept only theoretical positions that account for all of the facts? Then the question posed by Botha, as it pertains to verb-particle combinations, lingers. Botha cannot be criticized for not seeking yet a third framework in order to answer the question; this is not part of his clearly stated purpose.

Yet only a theoretical position that does not contain redundancies or ad hoc modifications, one that does not slip language into an ill-fitting jacket, to rely on a metaphor, would seem to fully justify a deductive approach in the first place. If such a position is not imminent, then one might return to Botha's (2-3) orderly presentation of verb-particle combinations, multiply these by further examples, then attempt to abduct the generality that accounts for the differences in their behavior.

2. Taylor. Like Botha, Taylor also does not 'problematize' his topic, but rather states his purpose in the very first line of his paper (14). It is

> ... to explore the feasibility, and some consequences, of a relevance-theoretic account of prenominal possessives in English.

While an intent 'to explore' strikes some readers as vague, uncertainty about Taylor's path wanes as he takes us through seven facts (a-g) pertaining to prenominal possessive expressions (14-16). Three of these point to the possibility that all possessives share a semantic content that is subject to elaboration: (d) The possessive construction is not compatible with any semantic relation, e.g. **the dog's tail** but not ***the tail's dog**; (e) The range of possible interpretations of some possessives is strict, e.g. **John's wife**; (f) With respect to expressions in (e) whose possessive is a noun derived from a transitive verb, the Affectedness Constraint predicts the impossibility of ***the cliff's avoidance** because the cliff is 'unaffected', while the Experiencer Constraint predicts that **the enemy's fear** will denote the fear felt by the enemy, not the fear felt towards the enemy. In view of these facts, Taylor (17) makes it his main task '... to identify the semantic content of the possessive construction'. He suggests that this essence lies in the pragmatic function of the possessor phrase, and a pragmatic account alone '... may be sufficient to explain the full range of semantic and syntactic properties of possessive expressions' (18).

In pursuing the semantics of the possessive (18-20), Taylor uses several terms which he defines and illustrates. The possessor serves as a 'reference point' which makes explicit '... the mental path that the hearer must follow in order to identify the target' (19). There are two requirements on possessor nominals (cf. a fuller account of these in Taylor 1994): 'topicworthiness' (humans are more 'topicworthy' than nonhumans) and 'cue validity' (**in the city's destruction**, the affected entity **city** has greater cue validity than **cliff's** in ***the cliff's avoidance**, and thus **city's** is more suited to take on reference-point function than **cliff's**). In an expression such as **John's wife**, the name **John** has high cue validity and thus serves as the reference-point for the identification of **wife**. Taylor (25) says that **John's wife** is interpreted in virtue of its 'relevance': the inferences relative to a context are maximized while the processing effort relative to the context are minimized. Furthermore, as opposed to a word such as **car**, which is 'conceptually independent' and not readily associated with a relevant reference point, a word such as **wife** is 'conceptually dependent' and thus can be associated with a relevant reference point, e.g. **John**. In order to interpret an expression such as **John's car**, the hearer relies on his assumptions about the possessor and the most relevant relation that may connect **John** with **car**. If John is a car designer, then one might interpret **John's car** to be the one he designed. This last example shows how relevance theory operates (26): '... expressions are processed against contextual assumptions with a view to maximizing relevance'. But if a semantic connection cannot be made in this manner, the hearer relies on the 'default interpretation', which is typically one of possession.

Having identified the semantic content of the possessive construction as relevance, Taylor (27-29) concludes with remarks on the theory of relevance itself. In contrast to those who believe that there is a clear distinction between grammatical competence and pragmatic skills, Taylor (28) believes that his pragmatic account of possessives '... makes further inroads into the alleged autonomy of the grammatical module'. The more it is shown that syntactic phenomena are pragmatically motivated, the more suspect grammatical autonomy becomes. Such findings would necessitate a reevaluation of relevance theory with a more serious consequence (29): 'The very success of relevance theory may weaken the foundations on which the theory is built'.

Taylor shows in this carefully prepared study that relevance theory can indeed be applied to the area of prenominal possessives in English. But an evaluation of the success of his exploration into the consequences of his argument depends on one's beliefs (reminiscent of Botha's point). If one maintains that too little is known about the interaction between grammar and pragmatics to be able to describe them either as independent or dependent systems, then an appraisal of Taylor's success cannot be made. But if one claims, as is commonly done in cognitive psychology, that grammatical and pragmatic processes are independent of each other, then one might want to reconsider this position, as Taylor provides evidence that the grammar of prenominal possessives in English may be open to and dependent on pragmatic elaboration.

3. Kemp. It is a leap from the theoretical grounds of Botha and Taylor to Kemp's article, the story of K (37):

> ... a profoundly hearing impaired, English speaking boy ... who received a Chochlear 22-channel implant in September 1988 at the age of 9 years 7 months.

Since vowels have been neglected in previous analyses of such implant recipients, Kemp's goal is to describe K's vowel production: first preoperatively, then at six months and one year postoperatively. At each stage, produced stimulus words were transcribed by a phonetician, analyzed spectrographically, and analyzed further by a yet unpublished procedure for assessing vowels. Kemp's findings are presented in a total of twelve tables, figures, and appendices. Despite the poor quality of the grids in Figures 1-4, these illustrations are indispensable visualization of the contrasts.

K's production of the stimulus words showed variations from the target pronunciations: to a lesser extent, monophthongs and diphthongs were shortened; to a greater extent, long vowels were abnormally long with the result that monophthongs were diphthongized; and the vowels were generally nasalized. The acoustic analysis six months after the operation '... showed a more expanded and more clearly defined vowel space with clearer differentiation among the vowel formants'. This was also true one year after the operation. The contrast of K's vowels with the monophthongs and diphthongs of the target system reveals a '... decrease in the number of errors and the corresponding increase of correct pronunciations or approximations to the target vowel' (44). Overall, then, the implanted device '... improves both vowel perception and vowel production, and that, in turn, this improvement enhances overall speech intelligibility' (48).

In the appropriate places Kemp makes the reader aware of the problems associated with the description of vowels. She points out, for example, that '... features such as breathiness and nasality, which are typical of the speech of hearing impaired individuals, tend to cloud transcribers' judgments' (39). In spite of such admissions, Kemp has taken care to accurately depict the changes in K's vowel production that resulted from the implantation of a cochlear prosthesis. But can, it seems fair to ask, such changes always be characterized as improvement, progress, or development, to use the value judgments from her essay? The answer to this question must not ultimately come from the outside, from audiologists, otologists, pediatricians, etc., but from deaf people themselves. If a deaf person perceives him- or herself to be impaired or abnormal, then treatment with an implant that leads to a degree of communication with members of the hearing community can be considered improvement. If progress is not substantial, however, it could leave this person in a communicative bind. As Lane (1993:274) writes:

> Although implanted deaf children will not move easily in the hearing world, there is a danger that they will not move easily in the deaf community either. Thus, they may grow up without any substantive communication, spoken or signed.

But if a deaf person chooses to view him- or herself as a normal member of a language minority, in a community that also has '... a rich culture and art forms of its own kind, a minority history, and social culture' (Lane 1993:272), then treatment with an implant must be characterized as an invasion (cf. 'also the detailed description of the permanent surgical procedure in Lane 1994:273-274). In many cases, cochlear devices are implanted in children too young to give informed consent. Although Kemp does not detail this preliminary aspect of the operation, it should be safe to assume that at nearly the age of ten years, K decided for himself.

So in this 26th issue of SPIL, we read three authors who show themselves to be competent in their respective realms. This is also evidenced by their incorporation of the latest research without once allowing their own voices to fade. That we weighed alternative views as part of the discussion does not detract from their value to their respective fields. Thus, with its lack of thematic unity, this volume can be recommended to many a practitioner—to the theoretician or the descriptivist; to the morphologist, the syntactician, or the phonologist. Finally, the papers have been prepared with editorial care; the formatting is uniform and there are no misprints.

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Linguistics and the language professions. By RUDOLF BOTHA, *et al*, editors. Stellenbosch papers in linguistics, No. 25. Stellenbosch, South Africa: University of Stellenbosch, 1992. Pp. 242.

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How many different meanings does the word 'strike' have in English? Consider that in the semantic domain 'sports', 'strike' is not always a positive word. For example, in bowling a strike is desirable (being the best that you can do with any given turn), but in baseball it is bad (being generally the worst you can do with any given swing, which is to miss the ball with the bat). As a verb, 'to strike' can mean 'work stoppage'. In these current times, 'baseball strike' does not mean 'to miss the ball with the bat' but 'to refuse to play until labor negotiations are settled'! (This may or may not be a positive, depending on whose perspective is being considered.) 'To strike a match' is different from 'to strike a deal' or 'to strike it rich'. In Australian English, the word 'strike' is a common exclamatory expression equivalent to 'Good grief!' or 'I don't believe it!' How would you teach these entirely different ranges of meaning to nonmother-tongue speakers of English? If you like studying these kinds of linguistic matters, then this volume in the Stellenbosch Papers will be a good stimulus for thinking and investigation. Teachers of ESL and other second languages comprise one group who will benefit from the discussions on context, textual meaning, and sociolinguistics.

The First Stellenbosch Conference on Linguistics for the Language Professions was held at Stellenbosch, South Africa in early 1992. This volume is a compilation of the texts of ten of the papers delivered at that conference. Two papers will be of particular interest to field linguists. One is a paper by John R. Taylor entitled, 'How many meanings does a word have?' The author builds his entire discussion around the various components of meaning found in the simple English phrase 'open the window'. He states that many different words can be substituted for open such as 'paint', 'break', 'deliver', and 'brick up', and various factors of purpose, context, and speaker intent shape the meaning. That simple information is not startling to the linguist. However, the author uses many different approaches and explanations to show that the 'one form—one meaning' position, which has been forwarded in recent years by German linguist Manfred Bierwisch, does not necessarily depict every level of semantic description. Taylor particularly shows that the theory encounters problems once the investigation extends to more than one language, such as the use of the Italian verb *aprire* and its correspondence to the English verb *open*. He shows how the Italian verb can be used in collocations that do not occur in English. This discussion centers around an understanding of semantics and conceptualization, and Taylor shows that 'one form—one meaning' does not adequately fit all possible combinations.

The article impressed upon me the need to do further lexical study in our particular language program. I have often thought that the lexical forms of the Cheke Holo language of Solomon Islands do not carry nearly the semantic potential, load, or range of meanings that English carries, such as I briefly outlined in the first paragraph. However, have we investigated enough of the possible range of meanings in Cheke Holo to be confident that we have zeroed in on all of the major possibilities? Before reading the article, I was fairly certain that had been done; after reading the article I have shifted to a more neutral position. Polysemy ('many meanings') is an area of lexical study worth the attention of any field linguist.

The other article in this compilation that I wish to comment on was written by Professor Walter K. Winckler, and goes by the intriguing title of 'Missing Matthew's Meaning'. Or: Towards a Nodding Acquaintance with Textual Meaning (And, Maybe with "Context" Too)'. His discussion is a reply to chapter 4 of Ernst-August Gutt's book on *Translation and relevance*. Winckler's thesis in the article is that even though Gutt offers much beneficial linguistic and translation guidance around his theory of Author-Intended Meaning (AIM), at times he feels that he does violate his own stated principle. To get to this point, he applies the exegesis of R. T. France to Gutt's theory. Winckler states that for Gutt, author intended meaning is a term that corresponds with 1) what the surface meaning of the author's original conveyed to the listeners (i.e. 'a meaning intended by the author to be accessible to even the most naive of his culturally-near readers'), and 2) what the author intended to be the bonus meanings of the original (i.e. 'meanings intended by the author to be accessible, not to his most naive readers, but rather to his envisaged other readers, and this to the extent to which these other readers share with the author the cultural traditions and /or the bodies of learning envisaged by him'). This is in effect 'layered meaning'. Both of these should be grasped in order for the translation to be effective. I do note that when the exegesis of France is applied to Gutt's theory, Winckler builds his reply around France's understanding. It did leave me wondering a bit if he is actually analyzing Gutt's theory or France's understanding of Gutt. Winckler posits that

France interprets Gutt properly, and the fleshing out of AIM is a logical conclusion when read through the grid which France posits.

Winckler does not dismiss Gutt's theory, but draws caution to Gutt's own possible violation of accepting less than full bonus meanings in order for the translation to be accurate. Gutt's theory of translation relevance has attracted wide attention in the linguistic and translation world, and Winckler's article engages his premises in a thought-provoking way. The reader will probably benefit more from the article if he has good working knowledge of Gutt's theory.

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Jakobsonian poetics and Slavic narrative: From Pushkin to Solzhenitsyn. By KRYSTYNA POMORSKA. Edited by Henryk Baran. Durham and London: Duke University Press. 1992. (Sound and meaning: The Roman Jakobson series in linguistics and poetics. C. H. Van Schooneveld Series edition) Pp. 323. $45.00

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Roman Jakobson (1896-1982) was a leading scholar of the Prague School, which is remembered today for, among other things, the phonology of oppositions, the precursor to generative phonology.

This volume of essays by Polish-born Krystyna Pomorska (1928-1986), late Professor of Russian at MIT, for a time married to Jakobson, was edited after her death by Henryk Baran. As the title suggests, poetics is not limited to poetry. Pomorska was best known for her pioneering work in applying Jakobson's theories of poetics to prose narratives.

The reader will find her style easy to read and comprehend, though an overall knowledge of the book, poem, etc. being reviewed is assumed and desirable. Russian texts of poems are printed, followed by a full English translation.

Pomorska's first chapter, 'The structure of prose: Continuity versus simultaneity' is seminal and crucial to an understanding of both Jakobson and her particular view of his approach. It should not surprise us that the theory of oppositions features in Jakobson's theories of poetics. She says:

> Modern anthropology and linguistics have established that poetry in various forms (including syncretic forms) existed prior to prose ... The fundamental poetic principle of parallelism is prevalent in Russian artistic prose, as opposed to the use of plotting in the Western European norm. This phenomenon is evidently traceable to the folk poetic tradition. Jakobson established that both prose and poetry, as the fundamental forms of verbal art, depend on two basic axes at work in every type of discourse: the axis of selection and the axis of combination ... These two axes are related respectively to the principles of similarity and continuity. Similarity or equivalence is responsible for the metaphoric pole in language, while contiguity pertains to the metonymic pole.

Applying these principles to prose, Pomorska notes that characters are dramatically contrasted in pairs: e.g. Pushkin's Onegin and Lenskii, Tat'iana and Olga. Tolstoi's novels are found to have primary and secondary plots which elaborately and symbolically parallel each other. Jakobson noted that the pattern of a poem is set in the beginning pages. The same, she says, usually applies to a novel. But the reader is too often so taken up with the plot that he fails to recognize the symbolic system underlying it all.

The second fundamental principle, after parallelism, is the opposition of markedness, introduced as early as 1921 in Jakobson's 'The newest Russian poetry'. The main concepts underlying this principle are correlation (the systematic relationship between two contrasting things) and hierarchy. A simple example: a downbeat is marked, an upbeat is unmarked. Poetry is more marked than prose. Applying this to Chekhovian prose, Pomorska notes an apparently eventless situation, with hardly any dramatic points of entry or departure. For Chekhov, in 'The darling' the marked parts are when Olen'ka has a man to love, and the unmarked is when that man is dead. It is a chain of perpetual alternation from filled to empty and vice versa. Thus, says Pomorska, 'the principle of markedness helps us to see that the notion of event, which is basic for classical prose fiction, is not an absolute but a relative component'.

In chapter 2, 'The segmentation of narrative prose' Pomorska looks at 'Nights and days' by Maria Dabrowska for markedness. Superficially it is eventless, yet a lot happens. Using the linguistic term syntagmatic, presumably in the Saussurian sense of the word, she looks at the events and notes that many are unmarked in that no great change happens in the plot. The event here is not a quantity but a relation. Events turn out to be frustrations underscoring the unchanging nature of the background, symbolized by the sky where 'everything passes but nothing changes'. Even the heroine is an unmarked person. All the marked events and all the marked characters seem to occur off stage, and never materially affect the lives of the central characters. This being the case, the syntagmatic axis, being made up of nonresultative actions, is constructed without any links of cause and effect. On the paradigmatic axis, however, the personalities of the main characters are dramatically opposed.

The analysis of 'Nights and days' continues into Chapter 3. 'Toward a typology of the Roman-Fleuve', but here the main theme is Tolstoi's 'War and peace', and the main focus is on oppositions. What started out as a family novel became overpowered by the historical events of the Napoleonic war. Ordinariness of family life contrasts with aspirations to do great deeds in war. Protagonists are contrasted in outlook, aspirations and speech. Oppositions occur in their outlooks, which have changed radically from the beginning to the end of the book. Again the sky becomes a symbolic backdrop. Nevertheless, in contrast to 'Days and nights', War and peace' involves a strictly linear flow of events, without stopping for retrospection or simultaneity.

The nature of oppositions is again clearly demonstrated by Pomorska in Chapter 4 'Alexander Solzhenitsyn: The overcoded world'. Solzhenitsyn attacked the Soviet system for having rejected the natural system of values inherent in man for the new, overbalanced, heavily coded pattern. We follow Ivan Denisovich's choices of working with or bending the system a little to reach the end of the day unharmed. The oppositions are binary:

to go to the cold cell/ to be pardoned
to work when ill/ to be admitted to the infirmary
etc.

Other chapters study works of Pasternak, Maiakovskii, Pushkin, and Gogol.

To know more of Jakobson as a man, much admired and esteemed by friends and colleagues, Chapters 17-20 fill in some details. For those who wish to know more of his theories, without drowning in detail, the works listed in the references at the end will give a good start.

Conclusions: On the face of it, one might think that this collection is only for students of Slavic literature and language, in particular those of our colleagues working in the former Soviet Union. Yet the implications are wider. If the theories of Jakobson and by extension Pomorska are valid for mediaeval and modern languages, they could well be valid for Biblical Hebrew and Koine Greek. We would do well to note what they have said about the nature of poetics in both poetry and prose, before we start exegeting and translating parts of the Scriptures. Already much has been written in books and articles on Hebrew poetics, and where they occur in the Bible. But I am personally convinced that we have only been scratching the surface. To take just two examples from the New Testament, which in our English versions are disguised as prose homiletic letters, 1 John and 1 Corinthians, when analyzed for poetic or rhetorical structure, reveal highly consistent patterns of parallelism and opposition. We need to take both Jakobson and Pomorska seriously, and apply their insights accordingly.

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The syntax and semantics of middle constructions: A study with special reference to German. By SARAH M. FAGAN. Cambridge: Cambridge University Press, 1992. Pp. 300. $59.95

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The scope of this interesting book is far from being limited to German, with many examples being taken from a variety of languages, such as English, French, Icelandic, Japanese, and Russian. The author starts by defining middle voice as 'an inflectional category of the verb in Indo-European languages like Greek.... The subject may do something to himself, for himself, or with something belonging to himself. Middle voice also denotes bodily motion or mental activity of the subject' and except for 'some future forms and the aorist, middle forms can have a passive sense as well as "middle" sense' (p. 1). In modern German on the other hand, **middle** designates

> ... a single type of reflexive construction. German middles or middle constructions (Medialkonstruktionen, Mittelkonstruktionen) have properties that lie somewhere between the active and the passive (p. 2).

To avoid getting into a muddle with the middle, Fagan gives contrastive examples (pp. 2-3):

a. **active:** *Er verkäuft Bücher.*
'He sells books.'
b. **middle:** *Das Buch* [misprinted as Buck - N.K.] *verkauft sich gut.*
the book sells REFL well
'The book sells well.'
c. **passive:** *Das Buch wird verkauft.*
the book is sold
'The book is being sold.'

* I would like to thank Associate Professor Paul V. Cubberley for useful discussions and advice on the final version of this manuscript.

The term **middle** as used here has thus grown out of an analogy with a Greek grammatical category (p. 3):

> Because German middles express meanings similar to some of the meanings expressed by the Greek middle voice, and because they have formal properties of both active and passive constructions, it is entirely appropriate to refer to them as middles or middle constructions.

The author aims 'to provide a comprehensive description and analysis of the syntax and semantics of middle constructions in German' (p. 3). Government-Binding theory is the framework, but whether you are a follower of Government and Binding, Bondage and Discipline or whatever, the exposition is clear enough and sufficiently data-based for this not to be a problem.

The Russian sentence *Kalitka otkryvalas' Olegom* 'The gate was being opened by Oleg' is given as an example of the use of *-sja/-s'* 'as the passive morpheme when the verb is in the imperfective aspect' (p. 240). The imperfective aspect is in this instance designating the process *in medias res. Olegom* is in the instrumental case: Oleg is the instrument of the opening of the gate. The sentence *Kalitka otkryvalas' Olegom* is, as Babby and Brecht (1975:362) point out, ambiguous: 'The gate was opened/ was-being-opened'.

Fagan writes (p. 235):

> The middle morpheme in Icelandic, *-st* , is related historically to the reflexive *sig*. The middle morpheme in Russian, *-sja*, is also related historically to the reflexive *sebja*. Both Icelandic *-st* and Russian *-sja* can be used to express reflexive as well as middle meaning.

The Russian reflexive *sebja* is of course often used in the contemporary language. Fagan takes the Russian sentence *Rebenok umylsja* 'The child washed (himself)' as an example of the reflexive use of *-sja* (p. 235) to show us that the reflexive origins of *-sja* are sometimes still expressed. Similarly, she cites the Icelandic sentence *Hann meiddist illa* 'He hurt himself badly' (ibid.) to show how the suffix *-st* is sometimes used with a reflexive meaning like that of the reflexive *sig*. This parallel development between widely separated languages will of course interest many readers.

In her 'Concluding remarks' the author writes, 'As the data from French, Russian, English, and German demonstrate, the relationship between middles and passives differs considerably from one language to the next' (p.

241). Middle constructions and the contrasts between their uses in different languages constitute both an interesting theoretical issue in language and thought and a practical issue in translating between and teaching such languages.

I am pleased to say that one of Fagan's Russian examples could well be employed with this book as the subject:

> *Éta kniga legko čitaetsja.*
> this book easily reads-REFL
> 'This book reads easily' (p. 171).

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Papers in laboratory phonology II: Gesture, segment, prosody. By GERARD J. DOCHERTY and D. ROBERT LADD, eds.. New York: Cambridge University Press, 1992. Pp. xiv, 462. Cloth $ 84.95.

Reviewed by STEPHEN A. MARLETT
SIL—Mexico Branch and North Dakota SIL Director

This volume on phonology grew out of the 1989 Edinburgh conference on Laboratory Phonology. (An earlier conference also resulted in a similar book.) It has three major sections, as the title indicates, and each section has a helpful introductory chapter. Sarah Hawkins describes task dynamics which is important to the first section; Michael Broe introduces feature geometry in a way which would be good background reading for anyone who is teaching or studying the subject; and D. Robert Ladd introduces intonational phonology.

Each section has four to six other chapters on related topics. Comments on these chapters follow most of them; this feature of the book makes it more interesting than many since one can gain insights and perspectives from other practitioners.

The central issue of laboratory phonology is 'the relation between phonetics and phonology' (p. 3), and it is obvious that this is fertile ground. The papers are not trivial in either their management of laboratory investigations nor in phonological theory. The book made me realize that in order to work in this area one must be very well-informed about both; as important as this field is, I do not know whether, within SIL, there is anyone comparable, although there certainly should be.

Rather than comment on each chapter, I will make remarks about a few and give the authors and titles of all (omitting the introductory chapters already mentioned above).

Chapter 2: ''Targetless' schwa: an articulatory analysis' by Catherine P. Browman and Louis Goldstein. The authors test the hypothesis that schwa has no features ('targetless'), and decide that it does have a 'weak' target. One commentator takes exception to the conclusion and claims that the results could be interpreted as consistent with the hypothesis that schwa is targetless.

Chapter 3: 'Prosodic structure and tempo in a sonority model of articulatory dynamics' by Mary Beckman, Jan Edwards, and Janet Fletcher.

Chapter 4: 'Lenition of /h/ and glottal stop' by Janet Pierrehumbert and David Talkin.

Chapter 5: 'On types of coarticulation' by Nigel Hewlett and Linda Shockey.

Chapter 7: 'The segment: primitive or derived' by John J. Ohala. This chapter is quite different from the rest. Ever the irritant to formal phonologists, Ohala suggests that 'autosegmental phonology's desegmentalization of speech, especially traditional segmental sounds (as opposed to traditional suprasegmentals) is misguided' (p. 177). The chapter is stimulating, but I appreciated G. N. Clements' extensive comments; he claims that Ohala's paper 'overstates its case by a considerable margin' (p. 188f).

Chapter 8: 'Modeling assimilation in nonsegmental rule-free synthesis' by John Local. This chapter is another appeal to Firth, but it wasn't completely understandable to me. Local claims that there is only one level of phonological representation and only one level of phonetic representation, and that the former is abstract and very different from what is typically proposed. Phonological representations are claimed to be unordered labeled graph-objects and not linearly ordered strings of symbols. It wasn't clear to me how this theorizing actually translates into practice or how we evaluate whether it is successful or not. The comment chapters were short and weak; maybe the commentators didn't think the paper deserved more. Klaus Kohler asks, 'What are phonologies of the type Local proposes useful for?' (p. 227) and then says

> The acuteness of phonetic observations on prosodic lines can contribute a lot, and has definitely done so. This is the area where prosodic analysis should continue to excel, at the expense of the theorizing presented by Local.

Chapter 9: 'Lexical processing and phonological representation' by Aditi Lahiri and William Marslen-Wilson.

Chapter 10: 'The descriptive role of segments: evidence from assimilation' by Francis Nolan. This paper shows that phonetic transcriptions are idealized, and that the true phonetic facts are much more complicated. While it doesn't hurt to be reminded of this fact, I was a bit surprised that there was any real doubt in the matter. Nolan claims that 'the representation of such phenomena is likely to require a more radical break from traditional segmental notions than witnessed in recent phonological developments' (p. 280). At this point, I would have enjoyed reading a reply by Ohala. Instead, Bruce Hayes takes up the challenge and shows that current forms of feature geometry are able to take us 'a fair distance towards an explicit account' of those facts (p. 281).

Chapter 11: 'Psychology and the segment' by Anne Cutler. This short chapter is quite different from most of the other non-introductory chapters; there are no spectrograms, etc. In fact, it was 'prepared as an overall commentary on the contributions [of the conference] dealing with segmental representation and assimilation' (p. 290). A couple of conclusions: 'the psychological literature is not going to assist at all in providing an answer to the question of the segment's theoretical status in phonology,' and 'a psychological laboratory is not, after all, the place to look for answers to phonological questions' (p. 295).

Chapter 12: 'Trading relations in the perception of stops and their implications for a phonological theory' by Lieselotte Schiefer.

Chapter 14: 'Downstep in Dutch: Implications for a model' by Rob Van Den Berg, Carlos Gussenhoven, and Toni Rietveld.

Chapter 15: 'Modeling syntactic effects on downstep in Japanese' by Haruo Kubozono.

Chapter 16: 'Secondary stress: evidence from Modern Greek' by Amalia Arvaniti.

The book has a single bibliography for the entire book (28 pages), and two indexes (name and subject). As might be expected from Cambridge University Press, this hardback book is well-edited.

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English phonology: An introduction. By HEINZ J. GIEGERICH. Cambridge Textbooks in Linguistics. Cambridge: Cambridge University Press, 1992. Pp. xv, 333. Hardback $69.95, paperback $19.95.*

Reviewed by MIKE MAXWELL
SIL—Academic Computing

The preface of this book (pg. xii) says that it 'is intended to introduce students of English, of English linguistics and of linguistics to the phonology of Present-day English.' While it probably succeeds in that purpose, it seems to me that it succeeds in another way as well: it introduces the reader with a background in structuralist phonology to more modern theories of phonology. The utility of this book for that purpose is due to the author's conviction that:

> … to understand the attraction of [Generative and Lexical Phonology, and Contrastive Underspecification] the reader must first grasp the basic principles behind them; and, in my view, a simple phonemic theory (albeit one with the derivational bias that I impose on it) embodies all these basic principles.

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* A version of this review was presented to the linguistics seminar at the JAARS Center at Waxhaw, NC, and I have benefited from comments of the participants. Karen Buseman also provided helpful suggestions on a draft.

A historical excursus may serve as an introduction to this review. The dominant theory of phonology in the United States[1] up until the 1960s was structuralist phonology, commonly called phonemics. Among the characteristics of that theory were the existence of three linguistically significant levels: morphophonemic, phonemic, and phonetic. Morphophonemic rules (often sequentially unordered) translated a morphophonemic representation into a phonemic one, while allophonic rules—phonological rules of a particularly limited nature—translated the phonemic representation into a phonetic one. The phoneme, the centerpiece of the theory, was defined in terms of contrast with other phonemes at the phonemic level, and in terms of its allophones. These in turn were defined in terms of phonetic similarity among themselves, and their complementary distribution. The notion of syllables also played a predominant role in most versions of phonemics.

In the 1960s, the theory of generative phonology rose to dominance in academic circles in the United States. Perhaps the best know work in this tradition was *The sound pattern of English* (Chomsky and Halle 1968). Among the claims of that theory was the idea that there were only two linguistically significant levels: the level of the underlying form (roughly comparable to the morphophonemic level of structuralist phonology), and the phonetic level. Gone was the phonemic level, and with it the phoneme. If there was a replacement for the phoneme, it was the segment viewed as a bundle (set) of phonetic features. But the segment differed from the phoneme in that it was defined in the same way at all levels (including those levels implicitly defined by the output of each phonological rule, the rules being viewed as applying sequentially). Moreover, Chomsky and Halle dispensed entirely with syllables, believing that all linguistically significant generalizations could be stated using segments (or their constituent features) alone.

More recently, with the advent of autosegmental, metrical, and lexical theories of phonology,[2] it might seem that history has reversed itself. First,

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[1] Not all theories of structuralist phonology shared all the characteristics discussed here, but those which were in common use in the United States largely did. Some of what I will say will not be relevant to versions of structuralist phonology which were developed in Europe.

[2] Despite the claims of all three to be theories of phonology, they are to a large extent mutually compatible. That is, it is not unreasonable to write a single description of a language using parts of all three theories.

there are generally assumed to be more linguistically significant levels of phonological representation than just an underlying level and a phonetic level. Indeed one of the levels commonly assumed, the post-lexical level, has often been virtually equated with the phonemic level of structuralist phonology; this result has been viewed as 'the return of the phoneme'. Moreover, syllables once again play a significant role in the theory.

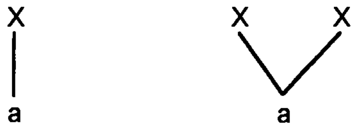
With this rather extended forward, I now turn to the book itself: *English phonology: An introduction.* Almost uniquely among modern phonology texts, this book begins with a phonemic analysis of English, pointing out problems as they are encountered and using those problems to motivate the constructs of autosegmental, metrical, and (to some extent) lexical phonology. It should thus serve as an ideal introduction to these modern theories for the linguist who is familiar with phonemics.

Giegerich opens with an introduction to articulatory phonetics with emphasis on what is most relevant to English. The second and third chapters then give a phonemic analysis of the consonant and vowel systems of several dialects of English, pointing out problems where they occur and making promissory notes to return to those problems later.

Chapters four and five discuss phonetic features such as 'voiced' and 'nasal'. Giegerich points out three functions of feature systems: (1) a contrastive function (each phoneme must differ in at least one feature from every other phoneme); (2) a descriptive function (each phone must be accurately described by its features); and (3) a classificatory function (features describe natural classes of segments, such that all members of a class behave alike in their phonotactics or in the phonological processes which they undergo or trigger). The author points out that these functions may conflict. For instance, an accurate phonetic description might require a gradient-valued feature, while features which distinguish phonemes are generally considered to be binary (or possibly *n*-ary, but certainly not gradient).

Chapter six introduces syllables, motivating them by their use in phonotactics. (In chapter eight they are also used as environments in allophonic rules.) Giegerich describes the syllabification process in terms of peaks and troughs of sonority. But this leads to an immediate problem in that words like **spray** and **tacks**, which are clearly monosyllabic,[3] have two peaks of sonority, since the *s* is higher in sonority than the adjacent stop. Giegerich's answer is that syllables can have, on a language-particular basis, 'appendices': a set of sounds which may exceptionally be attached to a syllable outside the syllable's onset or rhyme.[4] While I do not have a solution to this problem, saying that syllables can have appendices sounds suspiciously like a name for a problem rather than a solution.[5]

Chapter six also introduces the 'timing tier', or 'X-tier', a level which mediates between the feature content of sounds and the syllable level. This tier is used to make a distinction between long and short consonants or vowels. For instance, rather than saying that a short vowel bears the feature [–long] while a long vowel is [+long], or saying that there is a 'phoneme' of length, the distinction may be represented as follows:



This is notationally similar, but quite different in intent, to the representation of ambisyllabicity in which a consonant (or better, a position on the X-tier) is attached simultaneously to the coda of one syllable and the onset of the following syllable.

Chapter seven continues with an exposition of the English stress system using the theory of metrical phonology. Since this is an exceedingly complex area, Giegerich opts to treat it only in part, concentrating on the stress patterns of nouns. Under metrical phonology, stress is represented by collecting one stressed syllable plus zero or more unstressed syllables into a 'foot', and collecting feet into a phonological word. The nodes of the resulting tree structure are labeled Strong or Weak, depending on their position and whether they branch. The primary stress of the word is the syllable that is dominated exclusively by Strong foot nodes, while more

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[3] Hooper's proposal (1976: 218) that *s* can be syllabic in English has not generally been accepted.

[4] Giegerich attributes the notion of syllable appendices to Fujimura (1979), which I have not seen.

[5] Syllable appendices should not be confused with word appendices, a notion for which there seems to be considerable evidence.

weakly stressed syllables have fewer Strong foot nodes. Both the construction of feet, and the labeling of feet as to Strong or Weak, is rule-governed[6] and language particular. As with the 'phoneme' of length, the 'phoneme' of stress (or phonemes, in the case of a multiple stress language like English) turns into something entirely different: a tree structure.

Giegerich observes that English stress rules, being dependent on such nonphonetic information as part of speech (the rules for verbs being somewhat different from those for nouns) would not be treated in a traditional phonemic analysis as strictly phonological.

The next chapter discusses allophonic rules. The use of phonetic features (rather than lists of atomic phonemes) to define the natural classes undergoing such rules serves as an additional motivation for feature systems. Again, Giegerich brings out a problem for a traditional phonemic analysis: the schwa sound appears to be in complementary distribution with all other vowels (except, for some dialects, the /ɪ/). Of which vowel phoneme, then, is it an allophone? There is no good answer, and the author proposes that schwa is actually an archiphoneme, something which is 'more **abstract** than phonemes' (pg. 242).

Chapter nine discusses (necessarily, briefly) connected speech. Giegerich brings out an interesting point: 'assimilation in connected speech … frequently causes the breakdown of phonemic distinctions' (pg. 289). An example is the pronunciation of 'ten pounds' as [tɛmp^{h}aʊnz]; the phoneme /n/ has been realized as the phone [m], which is an allophone of a different phoneme /m/. Nevertheless, most native speakers of English will perceive the phone [m] in this phrase as the phoneme /n/, rather than /m/. Such facts bring into question the idea that native speakers are aware of phonemic distinctions but unaware of phonetic differences.

Up to this point most of the theoretical constructs Giegerich discusses could be more or less comfortably accommodated within a sort of extended standard phonemic theory. For instance, phonemes of length or stress never seemed to be quite the same kind of thing as consonant or vowel phonemes, so the idea that they might instead be represented as a kind of structure is not inimical to phonemics. But in chapter ten, Giegerich turns to innovations that undermine some of the basic assumptions of structuralist phonology.

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[6] More technically, parameter-governed. The distinction is not discussed in this book.

One such innovation is the idea that the velar nasal ([ŋ]) is derived from the sequence /Ng/ (where N is a nasal archiphoneme). Such an abstract analysis requires two rules: one to assimilate the point of articulation of the nasal to the point of articulation of the following consonant, and one to delete the /g/. Giegerich claims these two rules must be ordered with assimilation acting before g-deletion. But in fact, the two rules could apply simultaneously. Furthermore, both rules could easily be treated as morphophonemic rules, a class of rules which are necessary in any case. Perhaps a more convincing case for ordered rules would have been the well-known example of 'displaced contrast' in pairs of words like **writer—rider**. For many dialects of English, these form a minimal pair for vowel length, the usual contrast between /t/ and /d/ having been neutralized to a voiced flap.[7] Despite the fact that we have a minimal pair for vowel length, probably no linguist would want to say that vowel length is contrastive in English. Instead, we seem to be dealing with two rules: an allophonic rule lengthening a vowel before a voiced consonant, and a flapping rule which neutralizes the contrast between two phonemes. Furthermore, either vowel lengthening is ordered before flapping or both rules apply simultaneously (otherwise the vowel would be long in both words). While this is clearly the right answer, it directly contradicts the claim of structuralist morphophonology that all morphophonemic rules (of which neutralization of contrast is one subtype) are ordered before all allophonic rules. It is, however, compatible with the division in lexical phonology between lexical and post-lexical rules (both rules are automatic and belong to the post-lexical phonology).

Turning from the question of rules to that of phonological representation, Giegerich makes a final point: segments per se (and therefore phonemes) do not exist under modern conceptions of phonology. To some extent this has been foreshadowed by the notion of the X-tier introduced earlier, since a certain amount of structure is introduced for long vowels, geminate consonants, etc. It becomes clearer with the introduction of autosegmental rules, as Giegerich shows. For example, the assimilation by a nasal consonant to the point of articulation of a following obstruent is viewed not as a copying of the point of articulation features of the obstruent over to the nasal consonant, but rather as a sharing of the point of articulation features between the nasal and the obstruent. Thus the transcription /ŋk/ no longer represents two segments (whether phones or phonemes) because they are, in

[7] Or tap; like many writers, Giegerich uses the terms 'flap' and 'tap' synonymously.

a real sense, Siamese twins: they share a certain amount of structure. This is the essence of autosegmental theory.

I do have a few quibbles with this book. First, there are occasional inaccuracies or inconsistencies. For instance, in a discussion of articulatory phonetics on pg. 20, Giegerich says 'there are no voiceless sonorants'. This is debatable; one could plausibly argue that voiceless nasals, for instance, are sonorants (although Ladefoged 1971:109 adopts the view that sonorants are always voiced, which would imply that voiceless nasals are not sonorants). This statement is contradicted on page 219 in a discussion of the devoicing of sonorants following voiceless stops.

A second quibble is a degree of confusion between what Householder (1952) called 'God's truth linguistics' on the one hand, and what is useful to a linguist wishing to describe a given language on the other. This confusion surfaces, among other places, in a discussion of why the use of a phonetic feature [Long] to distinguish certain vowels would be a wrong move:

> If we decided, then, to use [Long] as a phonemically relevant feature in R[eceived]P[ronunciation] and G[eneral]A[merican] ... we would have to use an entirely different approach for S[cottish]S[tandard]E[nglish] ... This would complicate our cross-dialectal study ...' (pg. 101).

The question of whether a given feature should be used to make a phonemic distinction is totally separate from the question of what might be useful in a description of cross-dialectal variation. The former is a matter of correct analysis while the latter is merely a question of convenient exposition.

Finally—and perhaps this is a result of the introductory nature of this book—alternative analyses are not always pointed out or even acknowledged. One instance is the question of syllable appendices vs. word appendices; postulating word appendices would have considerably clarified the discussion of the syllabification of polysyllabic words. Another case in point is the possibility of using positive constraints in phonotactics; Giegerich uses negative constraints in several places where positive constraints might have better served. Given that positive constraints are used elsewhere, the reader may be confused as to why they are not appropriate here, particularly as the negative constraints become quite complex.

Having said that, I recommend this book to linguists who have been trained in phonemics as an introduction to more recent theories of phonology. It has the advantage over other introductory books on autosegmental or metrical phonology of starting where such a linguist will already be comfortable. Moreover, the exposition of the theory is based on the analysis of a language with which readers of *Notes on Linguistics* are presumably already familiar. With an awareness which this book provides of problems arising in a phonemic analysis, and how those problems might be solved with more recent theoretical approaches, the reader may be better motivated to tackle more in-depth works such as Goldsmith (1990) or Kenstowicz (1994).

I should like to conclude this review with a question: With the advent of autosegmental and lexical phonology, has phonology returned to something more like phonemic theory? I think the answer to this is yes and no. The syllable indeed has returned. But while much has been made of the resemblance between the phonemic level and the post-lexical level, there are nevertheless important differences. First, there can be no such thing as a phoneme, if by phoneme is meant an atomic segment which is in contrast with all other phonetically similar phonemes; for segments cannot in general be separated from each other; moreover, there are sets of sounds which are at the same time in contrast and in complementary distribution (such as English schwa). Secondly, the rules of the post-lexical phonology are not all allophonic, for they may include rules which neutralize the contrast between two phonemes. The phoneme may have been resurrected, but that which has been raised is not the same as that which was sown.

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The formation of Afrikaans. By PAUL T. ROBERGE. 1993. Stellenbosch Papers in Linguistics No. 27. Stellenbosch: Department of General Linguistics, University of Stellenbosch. 109 pp.

Reviewed by MALCOLM ROSS
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Roberge himself describes this work as an essay, and, although it is published as an independent volume, this is a fair description of its scale. Eighty-seven pages are devoted to the essay itself (the balance to notes and references), and the whole volume is printed in one-and-a-half-spaced twelve-point Courier. In other words, the subject of this review is a long paper rather than a book.

Grimes (ed., 1992:369) tells us that Afrikaans is 'A variant of the Dutch spoken by the 17th century colonists, with some lexical and syntactic borrowings from Malay, Bantu languages, Khoisan languages, Portuguese, and other European languages.' In 1991 it had over six million speakers in South Africa, many of whom belong to the Afrikaaner and Cape Malay ethnic groups.

Roberge's intention is to re-examine the history of Afrikaans and to make a new proposal about its growth out of seventeenth-century Dutch into a separate language. After a brief introduction (section 1), he surveys the various ways in which a new language can arise out of a contact situation, pointing out that there does not necessarily have to be a radical break in the transmission of a language from generation to generation for glottogenesis (the birth of a new language) to occur (section 2, pp. 3-12).

In section 3 (pp. 12-48), Roberge summarizes the main views of the history of Afrikaans that are found in the copious literature thereon. He sets the scene by showing that there are no grounds to claim Afrikaans as a true Creole, i.e. the result of a catastrophic break in transmission (Thomason and Kaufman 1988: 147-166). It is far less Creole-like that Virgin Islands Dutch Creole, and retains such features as the typical verb-final and verb-second phenomena of West Germanic languages. On the other hand, there are some phonological and especially inflectional simplifications relative to Dutch, as well as interesting innovations (like the double negative) which are neither typically Creole nor Dutch. It is generally agreed that by 1740 an overseas variety of Dutch had appeared in the Cape and that by the late eighteenth century (at the latest) Afrikaans had basically solidified into a separate language. It is this latter assertion from which Roberge seeks to distance himself.

For convenience he divides theories about Afrikaans glottogenesis into three categories. In the first two categories are theories that take Afrikaans to be a direct continuation of Dutch, either by spontaneous change or by 'koineisation', i.e. the leveling of features from the different Dutch dialects used to the Cape. The third category includes a variety of theories entailing an interruption of transmission due to relationships between the various ethnic groups. One of these, propounded by Valkoff (1966:192-240), is cited in Thomason and Kaufmann's influential 1988 work (pp. 251-256) and runs as follows. In the earliest period, there were few Dutch women, and children with Dutch fathers and Asian slave mothers speaking broken Dutch acquired what became the alleged creolised Dutch of the 'Cape coloreds'. In the first 150 years, children of Dutch settlers were so often brought up by servants who were speakers of (Indonesian) Portuguese Creole that the children's Dutch was non-standard. On this reconstruction, the non-Dutch features of Afrikaans are due to rapid language shift, i.e. imperfect learning of Dutch by speakers who passed these features on to the next generation.

Section 4 (pp. 48-56) is a brief survey of the ethnic groups and their inter-relationships at the Cape in the early (1652-1795) period. One cannot avoid the inference that jargonized varieties of Dutch must have been in use, but there is no empirical evidence to tell us whether these ever stabilized into a pidgin.

In section 5 (pp. 57-86) Roberge presents his original contribution to the discussion of Afrikaans glottogenesis. He argues that by 1795 there was not a single, identifiable Afrikaans language, but rather a continuum running from a Cape Dutch Creole to an acrolectal Cape Dutch, and that the development of modern Afrikaans can be conceived as the gradual emergence of the modern standard out of this continuum. His data for acrolectal Cape Dutch are drawn from the 1797 'diary fragment of a prosperous Cape Town resident, Johanna Duminy'. Roberge shows that Duminy's Dutch is closer to metropolitan Dutch than to Afrikaans, but already contains a number of Cape Dutch features, which Roberge illustrates with quotations from Duminy. He then turns to the other end of the continuum, Cape Dutch Creole. He admits that its existence can only be inferred from the reconstructable sociolinguistic situation at the Cape, but suggests that if it did exist, then some of its features should be preserved in relic areas, i.e. in more remote and isolated varieties of Afrikaans. For his data he turns to Orange River Afrikaans, the Afrikaans of the Griquas in the 1980s. The Griquas are descendants of an early mixing of ethnic groups, whose forebears must surely have been Creole speakers. Roberge assumes that Orange River Afrikaans must be the result of two centuries of decreolization, i.e. of movement towards the acrolect, but infers that we might still expect to find in it relics of Creole features. In a careful examination of his data, he shows that there are indeed basilectal features in the Orange River dialect that can be taken as evidence of an erstwhile Cape Dutch Creole. His conclusion (pp. 86-87) is that many accounts of the formation of Afrikaans have been too simplistic, and that in the late eighteenth century there was not yet a focused Afrikaans language, but a continuum of lects ranging from a Creole to an acrolect which was quite close to metropolitan Dutch.

If we are looking for a category of glottogenesis into which to place Afrikaans, we will have to call it a 'creoloid' (the term was coined by Platt 1975 for Singapore English), a language which has undergone some simplification as a result of its use as an inter-community lingua franca. What Roberge does, however, is to illustrate the fact that the emergence of a creoloid is not necessarily a straightforward simplification (and probably never is) but rather the gradual focusing of a standard out of a continuum of variation. I am not a specialist in Afrikaans, but I have examined the prehistory of a number of contact situations, and I find Roberge's reconstruction of the sociolinguistic context and his use of texts to reconstruct features of the eighteenth-century Cape Dutch continuum sensible and convincing. There is just one question to which I cannot find an answer in Roberge's account: how did the acrolect, represented by Duminy's diary fragment, come to move away from metropolitan Dutch, whilst in contemporary English, French, Spanish, Portuguese and other Dutch colonial situations the metropolitan standard continued as the acrolect?

My reading of Roberge's essay was marred only by one small oddity: although some of the cited Afrikaans data fragments are glossed in English, others are not. Perhaps the author believed that his work would only be of interest to Afrikaans specialists, but it is also very relevant to current research into contact-induced change, so that this impediment to readability is a pity.

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Talk at work: Interaction in institutional settings. By PAUL DREW and JOHN HERITAGE, eds. 1992. Studies in Interaction Sociolinguistics 3. Cambridge: Cambridge University Press. Pp. xii, 580. Hardcover $79.95, paperback $29.95.

Reviewed by R. J. SIM
SIL—East Africa Group

This volume is a collection of fifteen papers whose common interest is the application of conversation analysis (see Levinson 1983:284-370) to the analysis of 'talk-in-interaction' in 'institutional settings'. This latter term is broadened in its definition to include work activities wherever they may occur, whether in a recognizable institution or not. So institutionality is determined by the nature of the interaction rather than by the setting in which interaction takes place.

The volume is organized in four parts, of which the first is 'Theoretical orientations' (pp. 3-134). The three papers included here, by the editors, S. C. Levinson and E. A. Schlegoff, form a book in themselves and offer a superb overview of the current nature of the field. The remaining twelve papers fall into parts focusing on the 'Activities of questioners' (four papers), the 'Activities of answerers' (three papers), and the 'Interplay between questioning and answering' (five papers) respectively.

Papers in Part 2 deal with talk-in-interaction during preliminary psychiatric interviews (West Germany), the television news interview (United States), courtroom hearings (London), and job interviews for a post in tertiary education (England).

In Part 3, papers deal with the communication of diagnosis in general medical practice, the handling of disagreement between interviewees in the news interview, and intercultural issues in the interview of applicants for job-training schemes, all within the British Isles.

Part 4 comprises five papers which analyze the interaction of interlocutors' responses in order to manage the two-way flow of information in some way. The first deals with the medical practitioner's technique of leading a patient to voice a (partial) diagnosis, to which the medic can respond, expanding the record (United States); the communication of advice between the post-natal house visitor and the first-time mother (Britain); the handling of telephone calls for emergency assitance (United States; courtroom cross-examination (Holland); and finally the interaction between persons unburdening themselves of some 'trouble' and the consequent offer of advice (Britain).

The twelve papers reporting various investigations are sufficiently interesting in their own right to make reading them enjoyable; the only irritation is that of being pulled in two directions. Beyond the paper but embedded in it, the snippets of data reveal another world of whose own human-interest story one would often like to read more.

The quite specific settings and quantities of data required for sound analysis make it unlikely that many field linguists will feel they can afford the time for such studies. It is to be hoped some will, at the least for the enrichment and forewarning of the rest of us: the talk-in-interaction in both institutional and casual settings in the societies from which linguistic field work stems, and in the material we translate, provide us with rich exemplars.

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SUMMER INSTITUTE OF LINGUISTICS
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From the Linguistics Coordinator

Sign language guidance team

A Sign Language Guidance Team has recently been formed to stimulate and guide sign language work in SIL. Members are Albert Bickford (Mexico Branch), Dianne Parkhurst (West Eurasia Group), and David Payne (International Linguistics Coordinator). The guidance team will advise the International Administration of SIL on matters relating to work in sign languages, including such things as:

- encouraging field entities to consider possible need for sign language work
- stimulating publicity and recruitment of members best suited for this sort of work
- promoting communication among sign language teams

Coordination of sign language work in SIL has been assigned to the International Linguistics Department. This guidance team relates to that office.

For the past several years, SIL has been developing a program in Mexican Sign Language. The overall goal at this point is to accomplish essentially the same goals in Mexican Sign Language that SIL has traditionally done in the other minority languages of Mexico: collect and analyze linguistic data, promote literacy in the language, and translate major portions of the Bible. This is the first sign language project in SIL, and it is still in the beginning stages of work.

The current team consists of Shelley Dufoe and Mike and Karla Hurst. Albert Bickford is supervising the project. In 1991 and 1992, SIL conducted a survey of Mexican Sign Language to determine the feasibility of doing a language program in MSL. What the team found is that Mexican Sign Language is entirely distinct from Spanish, with its own grammar and a vocabulary that does not correspond in a simple word-for-word way with Spanish words. When Deaf* people read Spanish they are reading what to

*It has become customary to distinguish between 'deaf' people (all those with a significant hearing impariment) and those who are culturally 'Deaf' (with a capital 'D'). The culturally Deaf are those who use a sign language as a primary means of communication and who associate and them is a foreign language. Many have been unable to learn to read Spanish at all because of the great difficulty of learning a language that they can never use naturally in conversation.

Mexican Sign Language is quite different from American Sign Language used in the USA and parts of Canada. (A translation of the Bible into ASL on videotape is currently in progress—the Omega Project of Deaf Missons, Inc.) Thus, the MSL survey team determined a definite place for an SIL language program and felt it would be feasible for SIL to proceed.

Of the current MSL project team members, Karla Hurst participated in the survey and so has a head start. Mike Hurst and Shelley Dufoe had the opportunity to begin learning MSL at SIL in North Dakota during the summer of 1993 when Karla arranged for a Deaf Mexican woman and her two Deaf children to come to NDSIL where Shelley and Mike studied MSL in their field linguistics course. Shelley also lived with this same woman and her extended family (most of whom are hearing) while she was studying Spanish. The next stage is for each team member to pass a language exam showing a basic communication proficiency in MSL. An in-depth study of the grammar of MSL is also underway in preparation for translation work.

Steve and Dianne Parkhurst are in Spain studying Spanish Sign Language (or LSE, Lenguaje de Signos de España). Deaf people of Madrid say that their language is fairly unified in all of Spain except for Cataluña where the language is very different. Most Madrid Deaf say they understand about half of what the Catalanes sign. The Parkhursts plan to survey the Madrid/Cataluña differences using dialect intelligibility testing with stories recorded on video. There are also signing differences among signers in the Madrid area as well, determined by age and the school one attended.

LSE is an old language. There has been some debate about whether the Spanish Benedictine monk, Fray Pedro Ponce de León, used sign language to teach deaf children to speak in the 1500's. Either way, the Deaf associations in Spain claim this man as their 'spiritual' father. Spain has an extensive network of associations for the Deaf, all coordinated by a Confederation. One Deaf association in Madrid was founded in 1906 and

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identify with other Deaf people. Not all deaf people are Deaf: they may be raised orally and use only a spoken language (through lip-reading), or lose their hearing later in life and continue to function as Hearing people.

has over 2000 members. The associations provide places for the Deaf to meet for conferences, dramas, sports and cultural activities, sign language classes for interpreters, and fellowship. Most of the Parkhursts' contact with the Deaf community has been through these associations.

There are no Deaf churches although a few hearing churches (mostly evangelical and Catholic) have some limited outreach to Deaf individuals.

Steve and Dianne are currently learning as much LSE as they can, making plans to start survey travel as soon as feasible. They are compiling a dictionary of signs, using the SignWriter program on the computer, as well as beginning other basic linguistic analyses.

Another team, Vic and Teresa Brown, have been assigned to the mainland Southeast Asia Group, and plan to take up work in a Thailand-based sign language project.

It is estimated that there are fifty to eighty or more different sign languages around the word which could benefit from similar SIL language programs.

—David Payne

LINGBITS—General Announcement

We would like to announce LINGBITS, a newly launched, occasional, electronic newsletter from the International Linguistics Department of the Summer Institute of Linguistics. Its purpose is to distribute current information on linguistics by e-mail to SIL field entities and members who do not have convenient access to Internet discussion lists, as well as to disseminate occasional announcement from the International Linguistics Coordinator of SIL to field entities. We will aim at an approximately semi-monthly distribution, though there are times when distribution will be at greater or lesser frequency. Each issue will be around 7.5 k or less.

LINGBITS is distributed directly by email to one contact person in each SIL field entity (and some sub-entities). This person will normally be the Linguistics Section Head, or if the entity lacks such a person with an email address, to the Technical Studies Section Head, Language Affairs Section Head, or Entity Director. We have requested that these contact persons distribute relevant information contained in LINGBITS to their entity colleagues as they see fit.

(Continued on next page)

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Other interested individuals (aside from the designated entity contact) who have access to Internet, CompuServe, America-Online, cc:Mail or similar service, are invited to subscribe to the LINGBITS newsletter by sending the following command to the SIL mail server (called MAILSERV):

SUBSCRIBE LINGBITS

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In addition to the normal LINGBITS issues, occasional, briefer, Area-specific issues of LINGBITS will be distributed to the designated entity contacts in each of the following Areas:

Africa	(LNGB-AFA)
Americas	(LNGB-AA)
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Announcements regarding these will be posted in the regular LINGBITS newsletter. Interested individuals who do not automatically receive these notes can receive the Area-specific newsletters by using the SEND command. For example, if to receive the Africa LINGBITS which might be referenced LNGB-AFA.001, send the following command: SEND [LINGBITS]LNGB-AFA.001

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Most of the information in LINGBITS (and the Area LINGBITS) is gleaned from electronic discussion lists and electronic newsletters like Linguist, Endangered Languages, SEALang (South East Asia Lgs), AN-Lang (Austronesian Lgs), SSILA (American Indigenous Lgs), and others. Some information comes from paper mail received by the International Linguistics Department, but which would be out-of-date if it were further distributed by regular mail, such as in *Notes on Linguistics.*

LINGBITS includes announcements about conferences, seminars, workshops, courses, and special projects; calls for papers; book and article notices; topical discussions; and requests for information—deemed to be of relevance to SIL members and other field linguists.

Many of the announcements in LINGBITS are highly abridged. When this is done, a reference is given to a file with further information, which may be retrieved from the SIL mail server, using the SEND command. For example, if the reference is LB950701.CONF, send the following command:

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Language and the Deaf

Steve Parkhurst and Diane Parkhurst
SIL—West Eurasia Group

1. Introduction

Presented here are some basic concepts and issues regarding the interaction between language and the Deaf[1]. Language, the ability to communicate life's experiences and thoughts in a systematic form, is not limited to speech. For years the linguistic community has recognized the sign language systems of the Deaf as true languages[2] Nearly 80 distinct sign languages have been identified, each with a specific lexicon, grammar and syntax (Grimes, 1992). As with spoken languages, there have been attempts to construct a universal sign language and because of the iconically visual nature of signs, there has been some limited success. However, no universal system has been adopted as a first language of any Deaf community[3]. The distinct sign languages of Deaf communities persist as the primary form of sign language used by the Deaf.

Signed languages and spoken languages have many common elements. This has led many to assume that the signed language is merely an encoding of the spoken language in sign form. This presents one of the most difficult concepts in the understanding of sign language systems. Both the encoded form of the spoken language as well as a radically different

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[1] The term 'Deaf' (capitalized) refers to those who identify themselves as members of the Deaf culture. The term 'deaf' refers to all people who are hearing impaired but may or may not identify with Deaf culture.

[2] In the early 1960s William C. Stokoe began bringing the linguistics of sign language to the attention of the linguistic community (Stokoe 1960).

[3] A Deaf community refers to Deaf persons who consider themselves part of a unified group. For example, on the international level the Deaf community may refer to all Deaf persons worldwide. On a smaller scale, the Spanish Deaf community may refer to all the Deaf persons in Spain. The Madrid Deaf community may refer to the Deaf living in and around Madrid. A community may also consist of members of the Association of the Deaf of Madrid, one of several Deaf associations in Madrid. Most references in this paper refer to Deaf communities at the national level.

natural sign language often coexist. This is the topic of the first section of this article.

The second section deals with a volatile issue that arises in part from the coexistence of the spoken language, the signed language, and the blended mixture of the two. This issue is language superiority. Is the spoken language superior to the signed language? Should the benefits of a system that blends the spoken and signed language override the benefits of maintaining the natural signed language? One's views on these issues will affect one's actions and attitudes toward the existing varieties of sign language and the Deaf community itself.

As the Summer Institute of Linguistics begins to get involved with sign language and Deaf communities, an understanding of these issues is critical for an accurate evaluation of needs within those communities for linguistic and translation work.

2. Differences between spoken languages and signed languages

Unlike most spoken languages, signed languages rarely develop in a monolingual environment. Approximately ninety percent of the Deaf grow up in hearing families. Many of these children are taught in their home to some degree the spoken language through lip-reading. The ten percent of the Deaf that grow up with Deaf parents have the opportunity to learn the sign language naturally as a child. Yet even these children must deal with the hearing world that surrounds them. Deaf boarding schools present as close to a monolingual Deaf environment as possible. However, many boarding schools throughout the United States, Mexico, and Europe have at times forbidden the use of sign language in the school; students were taught to lip-read though signing spread secretly among them.

When two languages coexist in the same environment, there is often some mixing of the systems. As can be expected, the dominant language will often have more effect on the minority language than vice versa. These generalizations apply to the sign language situation. Sign languages which coexist with spoken languages often borrow characteristics of the spoken language in varying degrees.

For example, those who grow up with Deaf family members often use the most unaffected form of signing, particularly with other Deaf from similar backgrounds. Such signing systems borrow lexical items from the spoken language only when necessary and rarely borrow grammatical structures.

Deaf sign languages such as Mexican Sign Language (MSL) in Mexico and American Sign Language (ASL) in the United States are examples of such systems. MSL makes extensive use of a convention called initialization. The handshape of the sign takes the form of the manual alphabet that corresponds directly with the first letter of the word in the written language. The handshapes used in the sign *frío* 'cold' take the form of the letter F. *Rey* 'king' uses the handshape corresponding to the letter R[4]. In ASL, some signs consist of a contraction of the word finger spelled in its entirety. *Bus* is signed by rapidly finger spelling b-u-s. These are examples of borrowings from the spoken language that exist in both MSL and ASL.

Those who grew up hearing and became deaf and learned sign language later in life often will use a form of signing that maintains much of the spoken language grammar, which differs significantly from the grammar of Deaf sign languages. The lexicon, however, consists of signs rather than spoken or written words. Systems such as this are often called pidgin signed languages. Pidgin Signed English (PSE) in the United States and Signed Spanish in Mexico are two examples of such systems. Signing Exact English (SEE) in the United States follows the exact grammar of English and often alters the form of the sign by using initialization to signify the written word. Both PSE and SEE are commonly used in educational situations to help children learn the spoken language grammar.

These situations represent the extremes of a continuum of sign language systems ranging from most like the spoken language (SEE or PSE) to most unaffected Deaf sign language (ASL or MSL)[5]. The positions one holds on the continuum fluctuate depending on many factors, including the abilities of the signer and the preference or needs of the person with whom they are communicating. Deaf and hearing persons can hold any position on the continuum. However, there is often a smaller range that each person considers his or her preferred language. Placed on the continuum that follows are approximations of several standard signing systems used in the United States and Mexico.

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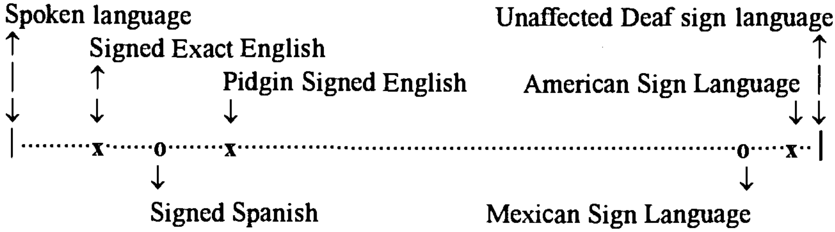
[4] Based on a 100 word study, MSL exhibited 37 percent initialization whereas ASL exhibited 12 percent.

[5] ASL and MSL are not totally unaffected sign languages; both are affected by the spoken language through the use of finger spelling and initialization.



Another distinction between the spoken language and a signed language goes beyond grammar and lexicon. A signed language takes advantage of spatial and visual elements that are not available in a spoken language. Sign languages often 'stack' information by using space, hand and body motions, and facial expressions. The same information in a spoken language requires the use of an ordered linear stream of morphemes. In a sense, the sign language requires a three-dimensional thought process whereas spoken language is more linear.

An example from our experience in Mexico will illustrate this point. In an attempt to translate Psalm 1 into MSL, we encountered some striking differences in how Spanish and MSL encode information. Below is Psalm 1:3.

Key: F: facial expression
R: right hand moves independently from left
L: left hand moves independently from right
BT: back translation

1 F: ---question---------
tree similar person same(1) same(1)
BT: Man is like a tree.

2 L: tree---
R: river (flowing next to tree) draw-up-water-through-roots
BT: A tree growing next to a river draws up nourishment

3 F: --neg.--
L: tree wither----
remain
R: nothing
BT: The tree does not wither. It stays the same.

4 L: tree-------------------------- tree--------------------------
same(1)
R: same(2) same(2) same(2) same(2) same(2)
(loc 1) (loc 2) (loc 3) (loc 1) (loc 2)
BT: It is the same for that which grows on the tree.

5 F: --neg.--
fruit or leaf wither nothing
BT: The fruit and leaves do not wither.

6 tree big bigger strong same(1) person
BT: Just as the tree gets bigger and stronger, it is the same with the person.

7 more more all person do good
BT: He prospers, and all that the person does is good.

Note the facial expression which signifies a question in phrase 1 and negation in phrases 3 and 5. Also note the interplay between the right hand and the left. In the second phrase, the sign for 'river' moves in such a way that it appears that the river is flowing past the base of the tree. While the tree remains in its place, the right hand signifies the roots drawing up water from the base of the tree in the location where the sign for river just passed. In phrase 4, the left hand continues to sign 'tree' while the right hand signs one of two signs for 'same' pointing to several different locations on the left hand. Phrase 5 specifies that those things on the tree which remain the same are the fruit and leaves.

It is clear from examples such as this that the differences between the spoken language and signed language are greater than simple word ordering, grammar, and lexical choices. There is a different thought process that takes into account space and iconicity of a sign. Sign languages also use facial expression and shifting of the body to convey information (partly omitted from example above).

The Deaf person who thinks three-dimensionally will have a harder time understanding signing patterned after a linear spoken language. The reverse is also true: Deaf discourse may be hard for the oral deaf to follow. Nearly all Deaf communities can be expected to have members at all points on the continuum. No one style of signing will reach all members of the community equally.

This bring up a volatile issue. Since members of the Deaf community are on different places on the continuum, how does one choose one form of signing over the other? Many Deaf communities feel a need to be unified and language is often the tool chosen for such unification. Which form of signing should be placed above the other? Should a form that matches the spoken language such as PSE or Signed Spanish be chosen, or a form that is Deaf in grammar, lexicon, and thought process, or perhaps some middle ground? This is the topic of the following section.

3. Language Superiority

Often the task of unifying a linguistically diverse community results in persons claiming superiority of one variety over the others. Deaf communities are no different. We will briefly state three situations which show the complexity of the issue.

The Deaf Power movement in the United States, which picked up momentum in the late 1980's[6], placed American Sign Language (ASL) as the preferred Deaf language over such variations as Pidgin Signed English (PSE) and Signing Exact English (SEE). ASL is used as one of the defining factors of American Deaf culture. However, PSE and SEE are still used frequently in the educational system and continue to be strongly supported by educators as well as members of the Deaf community.

In Mexico many Deaf refer to Signed Spanish as 'educated sign'. MSL is often referred to as 'mixed up' or 'ignorant sign'. This attitude shows that Signed Spanish has more prestige than MSL. However, many Deaf admit that they do not understand Signed Spanish and can only use MSL.

In Spain, one Deaf leader writes:

> ...we should never forget, parents and teachers, the full obligation of using signing to help the nonhearing to master, without fail, written and oral language, the marvel of human communication, that has no competition from any other kind of language (Pinedo 1988).

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[6] A week of protests at Gallaudet University in Washington DC in 1988 has been termed the Civil Rights Movement of the Deaf. News of this protest made headlines around the world (Gannon 1989).

Here Spanish Sign Language is viewed as a tool to gain the 'superior' language—written and oral Spanish.

Each of the three situations represents a different leaning in the same struggle. The American Deaf lean toward using ASL exclusively, while the Mexican Deaf view the ability to sign in a form closer to the spoken language as preferable. In Spain sign language is viewed by some as a means by which to obtain the 'greater' language—spoken language.

Let us first ask ourselves, 'Is spoken language superior to a signed language?' Every language has its areas in which it communicates information precisely and succinctly and other areas which require circumlocutions and borrowings from other languages. Sign languages are no different. A well developed sign language can express any information to some degree of proficiency. As seen in the preceding Psalm 1 example, the information about a tree planted alongside a river and receiving nourishment from the river is handled in a very graphic and expressive way. Information regarding abstract emotions also can be handled in ways that often surpass spoken languages. The opposite is also true. In Mexico there is a sign for 'tree', yet to distinguish between Oak, Pine and Palm requires descriptions or borrowings from Spanish.

From a strictly linguistic point of view, developed sign languages are not inferior to spoken languages. However, there is more to the issue than language validity. Deaf persons do not live in a monolingual society. All around them and even within their own families, people use a spoken language. In order to survive in a hearing world the Deaf must learn to deal with the difference in language. To remain monolingual in a Deaf sign language cuts the deaf person off from the hearing world around them. The lack of knowledge of the spoken language often results in lower paying jobs, as well as a lack of important information readily available to the hearing public.

On the other hand, in most Deaf communities the use of the Deaf sign language is a form of identity with the Deaf culture. To disregard the Deaf language and adopt the spoken language is the same as changing one's cultural identity. In the hearing community the best a Deaf person can hope for is to be viewed as a 'handicapped' person.

A middle ground has been sought by many through the use of blended systems such as PSE or Signed Spanish. While such systems make learning the spoken language easier for the Deaf and thereby they increase their chances of success in the hearing world, these systems are often viewed as a corruption and dilution of their language and culture.

The issue comes to a head when some members of the Deaf community decide that it is better to sacrifice the purity of the sign language in order to better themselves socially and economically. Meanwhile, other members decide that it is better to sacrifice that social and economic gain in order to maintain solidarity in the Deaf culture and fidelity to their language. Though neither spoken language nor signed language is inherently superior to the other, one is often placed above the other out of choice.

4. Conclusions

The purpose of this article has been to introduce some basic concepts dealing with the relationship between language and the Deaf community as well as some of the difficult issues that arise. A significant difference exists between spoken languages and signed languages, not only in grammar and lexicon but also in thought processes. There are sign language varieties that follow the spoken language patterns, those that follow a purer Deaf pattern, and others that blend the two systems together. The decision to promote one form or the other is usually based on two potentially conflicting interests: survival in a hearing world and Deaf cultural identity. As linguists begin to seriously examine the language situations in Deaf communities around the world, these concepts and issues are sure to play a major role in accurately defining each situation.

As linguists we need to keep these issues in mind as we seek to understand the language needs of the Deaf community. In nearly every Deaf community there will be members who will benefit most from either a signing variety that matches the spoken language or a purely Deaf sign language. There will also be those who are adamantly against material being produced in one form or the other. Recommendations by either the Deaf or hearing communities will undoubtedly contain elements tainted with one bias or the other. Therefore, opinions on either side from a single person or small group of people should not be naively accepted as representative of the whole community.

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CALL FOR CONTRIBUTIONS
From: LINCOM-EUROPA Project Line—June/July 1995

Two new subseries will be added to *LINCOM's Languages of the World/Materials* series in order to have a more complete documentation of a language: a dictionary subseries (LW/MDictionaries) plus a subseries with text-collections (LW/M-TextCollections).

LW/M - Dictionaries (LW/M-D)

* LW/M-D is a forum for the first presentation of lexical (and gram-matical) items of a language where survey is urgently needed. This holds especially for the many languages which are under endangerment, but also for minority languages and dialects which have been merely described so far.
* For illustration of the entries some sample sentences should be supplied. If a respective grammatical description has already been published in the LW/M series references should be made where necessary.
* In the Introduction a comment should be given on the geo- and sociolinguistic situation of the respective language. In this chapter an explanation on the organization of the dictionary should be given.
* Submission as CRC. Number of pages between 60/ 160. Times Roman 9-11 (or a similar font, Palatino, European Times etc.). Style sheet available.

LW/M - Text Collections (LW/M-T)

* Mainly text collections on languages where survey is urgently needed, functioning as a data storage for future analyses, but also for illustration of the analyses given in the accompanying LW/M issues.
* Various text sorts (if available).
* Texts with ethnohistorical relevance and from various speakers (if available). They should also be appropriate for language courses.
* Origin of the data should be noted.
* In case of bilingualism, some texts in all other languages spoken should be presented, incl. text of so-called REPLACEMENT LANGUAGES and MAJORITY LANGUAGES
* (Partly) interlinear translation plus full translation.
* Clear presentation.
* 1) If no grammatical description has been published in the LW/M series, grammatical comments should accompany the texts. 2) If a grammatical sketch on the same language has already been published in the LW/M series, reference to the respective study should be made.
* Special texts should be chosen for the demonstration of language specific phenomena, such as temporal or spatial relations, honorific systems etc. (also 'artificial' texts produced by parametric variation, narratives produced after videos or drawings).
* Orthography used should be practicable, pedagogical, and linguistically acceptable.
* Translation in English, Spanish, Portuguese, French.
* Readership: linguists, anthropologists, (speakers).
* Submission as CRC. Style sheet available.

INFO: LINCOM EUROPA, P.O. Box 1316, D-85703, Unterschleissheim/Munchen, Germany.

Dissertation Abstracts

Aspect in Bonggi

Michael E. Boutin
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Ph.D. University of Florida, 1994

This dissertation presents an analysis of aspect in Bonggi within the framework of Role and Reference Grammar (RRG). Bonggi is a Western Austronesian language of Sabah, Malaysia. The morphology of Bonggi distinguishes situation types: states, achievements, activities, and accomplishments. Because these four situation types are the starting point for a RRG grammatical analysis, there is a reciprocal harmony between the RRG model and Bonggi.

Bonggi verbs are classified semantically according to the relationships which exist between predicates and their arguments. These relationships are described in terms of logical structures which are linked to the verb morphology by a series of rules including the assignment of thematic relations, semantic macroroles, syntactic functions, case, and verbal cross-referencing.

Each situation type has a unique set of inherent aspectual properties (*Aktionsart*) which are reflected in the logical structures by predicates and a small set of operators such as BECOME and CAUSE.

The model highlights the distinction between *Aktionsart* and viewpoint aspect by treating viewpoint aspect as an operator. Whereas *Aktionsart* properties are determined from the logical structures in a constituent projection that accounts for argument structure, the assignment of viewpoint aspect belongs to an operator projection which includes viewpoint aspect, tense, modality, negation, and illocutionary force. Unlike *Aktionsart* which is determined from the logical structure, viewpoint aspect is independent of the logical structure. Although each situation type has a unique logical structure and a unique set of *Aktionsart* properties, the same situation can be presented from different viewpoints. That is, the inherent *Aktionsart* properties do not change with a change in viewpoint aspect.

Viewpoint aspect in Bonggi is formally expressed in: 1) the verb morphology, 2) a system of free form auxiliaries, 3) a system of enclitic particles, and 4) a system of temporal adverbs.

Although aspect, tense, and modality all belong to the operator projection, they modify different layers of the clause. For example, viewpoint aspect is an operator modifying the clause nucleus. This model not only provides a framework for treating aspect independently of modality and tense but also for treating the interrelationship of aspect with modality, tense, and other verbal categories.

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Case and agreement in Abaza

Brian O'Herin
SIL—North Eurasia Group
Ph.D. University of California, Santa Cruz, 1995

Abaza, a Northwest Caucasian language, has a rich agreement system in which nouns register agreement with their possessors, postpositions register agreement with their objects, and verbs register agreement with their arguments, including subject, direct object, and indirect object. This dissertation provides an account of this agreement system within the theory of Government and Binding in which each occurrence of an agreement prefix corresponds to a syntactic agreement projection. Abstract case is assigned and agreement features are checked within the specifier-head relation in such agreement projections.

Agreement in Abaza follows the ergative-absolutive pattern in which intransitive subjects and the objects of transitive verbs are marked alike in contrast to transitive subjects. This difference is treated with two distinct types of agreement projection—AbsP and ErgP. Following Campana 1992 and Murasugi 1992, the locus of absolutive agreement is taken to be higher than the locus of ergative agreement. The resulting movement of the arguments of the verb to the specifiers of their corresponding agreement projections (at LF) is nested. The Nesting Condition is argued to play a central role in this account.

Various complex constructions beyond simple intransitive, transitive, and ditransitive clauses are analyzed including: non-verbal (stative) predicates; the morphological causative; derived inversion, in which transitive and ditransitive subjects are registered in an agreement series further from the root than in the normal case; lexical inversion, a lexically specified class of two-argument verbs exhibiting an agreement pattern reversed from the normal transitive pattern; incorporated postpositions, which require extra agreement with the oblique argument within the verb complex; and a special [+wh] form in both the ergative and absolutive paradigms which registers agreement with wh-question words and relative operators. This dissertation provides a unified account of these constructions utilizing a small set of specific principles.

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23RD INTERNATIONAL SYSTEMIC FUNCTIONAL CONGRESS
Sydney, Australia—July 15-19, 1996

Plenary speakers include: Deborah Cameron, University of Strathclyde; Kristin Davidse, University of Leuven; Suzanne Eggins, University of NSW; Ruqaiya Hasan, Macquarie University; James Martin, University of Sydney; Christian Matthiessen, Macquarie University; Henry Widdowson, University of London.

Call for papers. The congress will be particularly concerned with functional and social perspectives on language—across a range of theoretical and applied perspectives, including computational linguistics, critical discourse analysis, educational linguistics, forensic linguistics, social semiotics, language description and typology, language pathology and others. Papers will be 40 minutes in length, including question time. Poster sessions will also be organized. Abstracts should be 250 words maximum, and indicate for a paper or poster session. Include the title of paper, your title, name, institution, and address. **Due date:** November 30, 1995. Acceptance will be sent by February 1996.

Registration. Due by April 30, 1996. Cost: $250 ($185 discount for full-time students not on scholarships). This covers lunch, morning and afternoon tea. A Harbour cruise is being organized for the free day and will cost each person approx. $25. Send for registration forms and more information to ISFC96, Centre for Language and Literacy, University of Technology, Sydney, PO Box 123, Broadway NSW 2007, Australia (Fax: 02 330 3939). Make checks payable in Australian dollars (other currency cannot be accepted) to 1996 International Systemic Functional Congress.

Remarks and Rejoinders

Remarks on Thomas Payne's article, **Reference grammars** (*NoLg No. 70)*

Thanks very much to Tom Payne for his article on reference grammars in *Notes on Linguistics No. 70.* Among other things, it has inspired me to see if I can get serious with other members of the Ndyuka/Aukan language project team in producing a good text collection now that there is a dictionary and reference grammar out.

A couple of ideas for your consideration for future versions of your words on reference grammars:

I think the introductory material should say what kinds of data, acquired through what sort of methodology, form the basis of the grammar. Just corpus? Mostly native speaker reaction to direct questions? Mostly elicited material or mostly naturally occurring text? How much were native speakers involved? Age range and sex(es) of speakers?

A more minor point: A lot of what you plead for in a good Index can be handled with a good Table of Contents, but the point is still the same—to allow readers to find quickly in what they are interested.

These quibbles aside, it is still a clear, concise, and motivating piece. Thanks!

—George Hutta., SIL—VP Academic Affairs

ERRATA

In the listing of the SIL members completing Ph.D. degrees in Linguistics, it was erroneously reported that Myles Leitch, of the Congo/Western Zaire Group, had received his degree from the University of British Columbia. Mr. Leitch is still in the processing of earning this degree, completing his dissertation as this issue of *Notes on Linguistics* goes to press.

Reports

Report on the 5th annual SEALS conference.

Miriam A. Barker
SIL—Mainland South East Asia Group

The University of Arizona hosted this meeting of the South East Asian Linguistics Society May 19-21, 1995 in Tucson, Arizona. The invited speakers and the topics of their papers were as follows: Joseph Errington, Yale University, 'Shifting styles in Javanese interaction'; Peansiri Vongvipanond, Chulalongkorn University, Thailand, 'Syntacticization and grammaticalization in four Thai dialects'; Diana Archangeli, University of Arizona, 'Grounding theory and Eastern Javanese'.

In addition to the invited speakers, 36 other papers were presented, ranging in topic from sociolinguistics to phonology and representing data from Yami to Balinese, from Manipuri to Tibetan and Yap. About 50 people attended some or all of the meeting, most coming from various parts of the USA, but a few traveling from Asia as well.

Kirk Person, SIL Member in Training, presented two papers—one from his MA thesis on a Central Thai Buddhist preaching style and the other on Lao dialect variations. Dr. Jerold Edmondson of UTA presented two papers—one on Tibetan tone in conjunction with UTA students Michael Filippini and Sezhen Geziben, and the other based on Shan data collected with colleagues in Myanmar.

The proceedings of this meeting will be published in a volume from Arizona State University. Proceedings of previous SEALS meetings are also available. For more information, or to order copies of the proceedings, contact Karen Adams at the following address: Karen Adams; Arizona State University; Box 873502; Tempe, AZ 85287-3502. Email: ATKLA@ASUACAD.bitnet

For information about dates and venue for SEALS VI and other conferences contact Karen Adams or Martha Ratliff at the following address: Martha Ratliff; Linguistics Program; Dept. of English; Wayne State University; Detroit, MI 48202. Email: mratlif@cms.cc.wayne.edu

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Reports on the 4th International Cognitive Linguistics Conference

Rick Floyd, SIL—Peru Branch

The International Cognitive Linguistics Association meets every two years alternating venues between the US and Europe. This year their fourth meeting was held in Albuquerque, NM between 24-28 July 1995, overlapping with meetings of the LSA's Summer Linguistics Institute. In 1997 the ICLA will meet in Amsterdam.

Anyone attending ICLA's meetings is confronted with the inherent disadvantage of not being omnipresent, since at any one time the attender can attend only one of any of the four concurrently running sessions. As a result, even after five days, one comes away exposed to only a small portion of the vast amount of research that is being undertaken under the umbrella of cognitive approaches to linguistics. (That also makes it difficult to know what to include in a report so that the flavor of the meetings is accurately captured.)

A number of the papers I attended reflected a couple of trends worth noting. First, cognitive linguists have put much effort into examining the role of metaphor in human language. The generally accepted view up to the present has involved a rather strict mapping of corresponding entities between a source and a target domain. However, the plenary talk by Gilles Fauconnier expounded on what might be considered an 'advance' in metaphor theory: language regularly recruits inputs from two (or more) conceptual domains and integrates them into a third novel 'blended space' which retains aspects of the original inputs but also develops structure of its own. In addition a fourth 'generic space' carries schematic structure involved in counterpart relations between the inputs. Several papers adopted this view, most notably Mark Turner's 'Blending and metaphor'. Turner, who has co-authored numerous articles with Fauconnier, dealt with an analysis of the term *The Grim Reaper*, showing that the domain of harvest provides only partial structure to the meaning of the term.

The second notable trend involved holding up to experimental scrutiny aspects of the assumption that linguistic units are polysemous. For example, Sally Rice, Dominiek Sandra, and Mia Vanrespaille reported on the psycholinguistic processing of the common TIME IS SPACE metaphor. Its ubiquitousness in both English and Dutch suggests that

> ...speakers should easily perceive the metaphorical link between spatial and temporal usages of an inherently spatial lexical item, such as **on'** as in:
> I met that man **on** the bus.
> I met that man **on** Tuesday.

But Rice et al. find that

> ...modern speakers of English and Dutch seem to have lost conceptual access to this most basic and widely proclaimed metaphor, while other more abstract mappings seem to be intact and recoverable.

Polysemy was also the subject of eye-tracking experiments in Steven Frisson, Martin Pickering, and Kerry Kilborn's 'The polysemy continuum: what the eye can tell'. And Christopher Johnson ('Metaphor vs. conflation in the acquisition of polysemy: The case of **see**') questioned the commonly held assumption that the acquisition of the KNOWING IS SEEING metaphor (e.g. **I see what you mean**) first involves an association of see with visual experience followed by later extension to mental experience.

I, and SIL member David Tuggy presented papers: 'Observations on Wanka Quechua conjecture marking and subjectification' and 'Tangled clichés: An introduction to a collection of bloopers' respectively.

All in all it was a fascinating week. My main criticism is that coffee was NOT provided, but, hey, I'll get over it.

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Eugene Casad, SIL—Mexico Branch

This ICLA conference bore out what we have been experiencing for the last several years, an increasing interest in and growth in the paradigm that we call Cognitive Linguistics as it is being developed by Ron Langacker, Len Talmy, George Lakoff, Eve Sweetser and their associates and students. This conference counted some 270 participants.

The ICLA forums had lectures by Talmy, Langacker, and Lakoff. Talmy's forum was entitled 'Conceptual structure in language and other cognitive systems'. Langacker's talk was entitled 'Constituency, dependency and conceptual grouping'. Lakoff's talk was called 'Morality, the family, and politics: What conservatives know that liberals don't'.

In addition to the three forum lectures there were six Conference Plenary Speakers: Antonio Damasio—'Concepts, words, and neural architecture'; Gilles Fauconnier—'Cognitive dynamics of language'; Gisela Redeker—'Voices in journalistic discourse'; Claudia Brugman—'GIVE and TAKE in conversation'; Arie Verhagen—'Meaning and the coordination of cognition'; Sydney Lamb—'Syntax in a realistic network model of language'.

Beyond the Forum Lectures and the Plenary lectures were 155 general session lectures given in four parallel sessions over five days. A number of the people who wrote papers for *Cognitive linguistics in the Redwoods* which I edited were back presenting papers on new topics.

In addition there were two meetings of the Board of the ICLA and one general ICLA business session in which Ren Dirven of the University of Duisburg was elected the new ICLA President.

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Report on the meeting of the Society for the Study of the Indigenous Languages of the Americas

Rick Floyd
SIL—Peru Branch

The Society for the Study of the Indigenous Languages of the Americas held their summer meeting in Albuquerque, NM 8-9 July 1995 in conjunction with meetings of the Summer Linguistics Institute sponsored by the Linguistic Society of America. A total of 34 papers from a range of theoretical perspectives was presented. There was particularly strong representation by Brazilian linguists from the Museu Paraense Emílio Goeldi who presented work in incipient stages on a number of little-studied Arawak, Maipuran and Cariban languages.

The order of presentations was organized in terms of the geographical locations of the languages beginning with Mapudungun in the south and ending with Inuktitut in the north.

The papers could be roughly organized into the following categories (with possible apologies to their authors):

Papers with primarily a Historical bent included: Aryon Rodrigues, 'Glottalized stops in Proto-Tupí'; Yolanda Lastra, 'Ixtenco Otomí' L. Brockman, 'The "Jaguar" and the Passive: Mayan **bahlam* and the *-*am* derivatives in common Mayan'; David Shaul, 'Evaluating the Taracahitic hypothesis'; Anthony Grant, 'French, British and Indian: a widespread French loanword in native Midwest US languages'; Richard Rhodes, 'The history of Algonquian number words'; Ives Goddard, 'Reconstructing forwards: a technique for discovering Arapaho etymologies'.

Those dealing principally with syntactic and semantic concerns: Jennifer Arnold, 'Reference, verbal form and information structure in Mapudungun'; Rick Floyd, 'Completion, comas and other "downers": observations on the Wanka Quechua directional suffix *-lpu*'; R. M. W. Dixon and Alan Vogel, 'Reduplication in Jarawara'; Nilson Gabas, 'Lexical choice in Karo narratives'; Sidney da Silva Facundes, 'The development of noun categorization in Apuriné (Maipure) compounds'; Alexandra Aikhenvald, 'Serial verbs in Tariana (Arawak)'; Spike Gildea, 'The active-stative system in Kaxuyana (Cariban)'; Petronila Tavares, 'Morphological and semantic anomolies in Wayana causatives'; Sergio Meira, 'From adverbs to verbs in Tiriyo (Cariban)'; Raquel Guirardello, 'Relativization in Trumai'; Andrés Romero-Figueroa, 'Basic order and sentence types in Karía'; José Alvarez, 'Split ergativity and NP/pronominal affixal comple-mentarity in Pemon (Cariban)'; Raimundo Medina, 'Parametric variation and the Comp node in Yukpa, a Cariban language'; Frank Treschel, 'Grammatical relations and clause structure in Jakaltek'; Judith Aissen, 'Impersonal passives and obviation Tzotzil'; Lynn Nichols, 'Expletives in northern Tiwa'; Laurel Watkins, 'Noun classification in Kiowa-Tanoan'; Ruth Bradley Holmes, 'Functions of the infix *-sk-* in Cherokee'; M. Dale Kinkade, 'A plethora of plurals (Upper Chehalis, Salish)'; Toshihide Nakayama, 'Discourse factors in argument selection in Nootka'.

Those dealing with Phonological issues: Elsa Gomez-Imbert, 'Extrametricality and post-lexical rules in Barasana (Eastern Tukanoan)'; Christiane Cunha de Oliveira, 'Aspiration and voicelessness in Baré (Maipuran-Arawakan)'; Jerold Edmondson and William Merrifield, 'Palantla Chinantec: nasalization, tone and stress'; Carrie Dyck, 'The placement of accent and lengthening in Cayuga (Iroquoian)'.

Other papers included: Laura Martin, 'Hansel and Gretel in Mocholand' (an analysis of the story's function in the transmision and articulation of adult gender roles); J. Randolph Radney, 'Computerized analysis of

Chilcotin' (involving the application of various SIL software products); Shanley Allen, 'Learning noun-incorporation in Inuktitut'.

The SSILA publishes a quarterly newsletter which includes brief write-ups on publications on Amerindian languages as well as notices of meetings of other regional groups of more local interest. It's worth the $12 a year. For further information contact the SSILA secretary: Victor Golla, Dept. of Ethnic Studies, Humboldt State University, Arcata, CA 95521, or via Internet: vkg1@axe.humboldt.edu

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Report on 40th International Linguistic Association (ILA) Conference

Shin Ja Hwang
Texas SIL

The 40th annual conference of the International Linguistic Association was held March 10-12, 1995 in Washington, DC at Georgetown University Intercultural Center in conjunction with Georgetown University Round Table of Languages and Linguistics (GURT), which was held March 6-11 in the same building. Monday-Wednesday there were ten presessions on topics ranging from African-Slavic-Spanish linguistics to History of linguistics (in which F. Robbins and K. L. Pike presented papers), and to Computer-mediated discourse analysis (organized by Susan Herring of UTA). Ruth Brend, the managing editor of *Word*, the official journal of the organization, was the chair of the conference committee.

'Discourse and text analysis' was the special theme for this year's ILA meeting. In addition to the three sessions devoted to that topic, however, there were six sessions on other topics as well: Syntax and pragmatics, Dialectology, Phonology, Historical/comparative linguistics, Language acquisition, and one on Miscellaneous. There were two invited lectures and a total of 47 papers, with two or three concurrent sessions.

The first plenary session speaker, Charles Fillmore, gave a stimulating paper on 'Discourse features of dictionary definitions'. He pointed out numerous issues involved in writing dictionary definitions, e.g., typicality ('An ogre is a character in fairy stories who is large, cruel, frightening, and

often eats people'), words or things ('**rascal**: a disreputable person...' [or] 'an affectionate or mildly reproving term for a child or old man'), frame of reference ('**foreigner**: one who is not British' [or] 'one who is not English'). As Fillmore also does research on Japanese (e.g., Fillmore 1991 on Japanese connectives), he commented on the papers at the conference dealing with that language as I did. Polly Szatrowski's paper on 'A discourse analysis of tag questions in Japanese and English conversations' argued that Japanese tag questions are textual in function. Satoko Suzuki, in her paper 'Discourse functions of two kinds of *te* in spoken Japanese, showed that *te* form, which I thought was a medial clause chaining form, frequently occurs at the end of the whole sentence in spoken data.

John (Haj) Ross was the other invited speaker. He spoke at the Saturday evening banquet. His paper was on 'The grammar of paths'.

Some papers were on Chinese, including one on teaching Chinese script and the spoken language. A paper by Kyong-Sook Song was on Korean: 'Comparative analysis of English and Korean discourse'. She commented that the Korean conversational data showed that Koreans tend to present the abstract or orientation, not early in the text as in English, but later, perhaps half way into the text. I am not sure it could be claimed as a feature typical/representational of Korean conversational texts. When I asked, she replied that was the case in about ten texts she collected, probably for her Georgetown University dissertation she said she finished a few years ago.

A few other papers that interested me were: '*But* as a cancelative discourse marker' (David Bell); 'Cases of *that*' (C. S. Haynes)—collected lots of examples using computer; 'Referent continuity in the narratives of monolingual speakers of Mexican Spanish' (Catalina Maria and Teresa Johnson); 'Given, accessible and new information' (John P. Broderick)

My paper, 'A textlinguistic approach to narrative discourse', was on an English text, 'Hans', that I have recently been using for my discourse grammar class. It is a short story of 32 sentences but shows interesting grammatical features that are responsive to different parts of discourse structure. The story was analyzed in several aspects: participant reference, verb and clause ranking, cohesion and coherence, clause combining, and narrative schema involving peak and profile. The story's macrostructure is: 'Little Hans received an apple from a girl, crept inside the cathedral, and (in an agony of fear) placed on the offering plate the apple, which changed to gold'. At the macrosegmentation level, it displays an interesting chiastic structure of the following kind:

A Hans cold outside the cathedral
  B Hans receives an apple and goes inside
    C Hans in agony in collection time
  B' Hans gives the apple, which is placed on the altar
A' Hans joyous when the apple became gold

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Report on ACAL 26

Myles Leitch
SIL—Congo/Western Zaire Group

The 26th Annual Conference on African Languages and Linguistics was held March 25-28 in Los Angeles, California hosted by UCLA. The special theme for this year's conference was African Language Classification. The plenary session speaker was Joseph Greenberg, Professor Emeritus in Linguistics, Stanford University.

SIL was well represented with the following papers: Mike Cahill, Ohio State University and GILLBT (Ghana)—'Nasal assimilation and labial-velar geometry'; Myles Leitch, University of British Columbia and SIL-Congo/Western Zaire Group—'Bantu C. vowel harmony: Incompatibility of canonically "compatible" features'; Doris Payne, University of Oregon and SIL—'Maasai argument structure: How to handle too many participants'; Carol Stanley, Atlantic Baptist College and formerly SIL-Cameroon—'Noun classes in Tikar'.

In addition, Rod Casali, UCLA and GILLBT (Ghana), and Kathy Watters, SIL-Africa Area, attended as observers. Since I only attended the phonology sessions, I will provide comments on that. From the perspective of theoretical phonology, the conference was very interesting. Modern phonology is undergoing a paradigm shift with greater emphasis being placed on output constraints and their interaction rather than derivationally ordered rules. A number of papers, including my own, were couched in the theory of constraint interaction known as Optimality Theory (Prince and Smolensky 1993). Not surprisingly, a few papers attempted to call the new framework into question. This will be hotly debated during the next few years.

The annual African linguistics conference has been a feast for phonology and phonetics research over the four years that I have attended. This year was no exception with excellent papers addressing a wide variety of current theoretical issues in feature geometry, tone, vowel harmony, etc. At the same time the focus of the conference remains African languages and linguistics and this shared interest unites researchers from many theoretical persuasions. There is a healthy descriptive bent to the conference as well, such that papers presenting novel data or interesting problems are warmly received. Selected conference papers will be published in book format in a volume called 'Theoretical approaches to African linguistics', Volume 2.

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Report on CLA 1995

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The annual Canadian Linguistics Association meetings were held June 2-5, 1995, at the University of Quebec at Montreal (UQAM). As in 1994, the meetings were held in the context of the large annual Learned Societies Conference. This is the one time of the year when the very active but geographically scattered Canadian linguistics community gets together to compare notes. Over 100 papers were presented during the four days of the conference, with about a third of the total papers in phonology. I will limit my comments below to the phonology sessions.

Constraints and Rules in Phonology. The current debate on the role of constraints in phonological grammars was a major theme at this conference. Twelve of the 30 or so phonology papers promoted some version of constraint-driven phonology. Of particular interest were papers by Carol Paradis and her students (Laval University, Quebec City). Her TCRS ('Theory of Constraints and Repair Strategies') takes a different tack than the widespread and dominant Optimality Theory (OT) approach of Prince and Smolensky 1993. Essentially Paradis posits a theory where both violable phonotactic constraints and repair 'rules' interact, while OT allows only constraints. In OT the violable constraints are ranked with respect to each other to account for language variation. My own paper, cast in OT, concerned variation in the vowel harmony system of several Bantu languages of Congo and Zaire: I showed that complex variation can result from re-ranking of a small number of well-motivated constraints. An interesting counterpoint to the other constraint-oriented papers was provided by G. R. Guy of York University, whose paper compared the current constraint based approaches to the 'variable rule' model of sociolinguistics where constraint strength is quantified (rather than determined strictly by relative ranking). In such a system even 'weak' constraints might make their presence felt but with a statistically reduced frequency. In OT on the other hand, a lowly ranked constraint will never have an effect on the output if a higher constraint is in competition. Thus the two theories make different predictions that might be tested. Guy presented data that argued for quantified constraint values. I was not convinced however that the 'variable rule' model, which was developed to model sociolinguistic variability in language communities, is appropriate as a theory of how individuals acquire phonological grammars. One can imagine a learner deducing that constraint **X** is 'stronger than' Y, and thus organizing his grammar accordingly. It seems implausible, though, that a learner would encode constraint strength with numerical indices. Nonetheless Guy's paper was among the most stimulating of the conference. The role of constraints will likely continue to be a central issue in generative phonology for the foreseeable future.

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Reviews of Books

Modern theories of language: The Empirical challenge
by MORTÉZA MAHMOUDIAN. Durham, NC: Duke University Press, 1993.
Pp. 204. Cloth $39.95.

Reviewed by SEAN ALLISON
Texas SIL

Mahmoudian's book is both accessible to the serious student of linguistics and useful to the scholar. He examines modern theories of language and evaluates them on the strength of their empirical adequacy. He does not examine all modern theories but critically analyzes a few of them when dealing with specific linguistic issues. A large number of his language examples come from French and he looks at the work of French linguists such as A. Martinet, G. Mounin and B. Pottier, to mention a few. He also analyzes work done by N. Chomsky, L. Hjelmsev and G. Lakoff, among others.

Mahmoudian's definition of 'empirical adequacy' is 'the power to explain' (p. xi). In other words, the evaluation of a theory is based upon its ability to explain linguistic phenomena and not on the intrinsic qualities (i.e. exhaustiveness, coherence, simplicity, elegance, etc.) of the theory itself.

The book is composed of two parts; the first part presents a broad view of the main problems in today's linguistics. In so doing, Mahmoudian examines the acquired knowledge and the most fundamental issues within the field of linguistics. This section contains four chapters and constitutes about one fourth of the book. In particular, he discusses six principles that he feels are common features of today's linguistics: 1) system versus unit, 2) rule and class, 3) formal versus random, 4) linguistic universals, 5) significant and signifié, and 6) the frame of analysis. Using an experimental approach, Mahmoudian comes to the conclusion that the levels of linguistic phenomena are hierarchized in the following order of increasing complexity and decreasing structure: phonology, morphology, syntax, and semantics. He believes that linguistic phenomena should be deemed more complex than is usually admitted by other linguists.

Mahmoudian includes the social and psychical dimensions of language phenomena in his work. He establishes a social hierarchy based upon whether a given linguistic community accepts or rejects the validity of a particular linguistic phenomenon. He also formulates a psychic hierarchy established on the basis of whether a speaker of the language is certain or hesitant about the acceptability of variants of a particular linguistic item. He notes that speaker certainty parallels social consensus and therefore he combines these two hierarchies to form an **extrinsic** hierarchy. This hierarchy is correlated with an **intrinsic** hierarchy which is established by examining linguistic phenomena on the basis of their frequency in usage and their integration within the language system. That is, the more frequently a linguistic item is used or the more integrated it is within the system, the greater the social consensus and the psychic certainty of its acceptability. Together these two hierarchies form a unique hierarchy, the poles of which are a **central** zone and a **marginal** zone. This is Mahmoudian's experimental model.

In the second part of the book, Mahmoudian's discussion becomes more theoretical and detailed as he considers equivalent concepts developed within different theoretical frameworks. Having developed his own experimental model he compares it to other experimental works within linguistics. This section also contains four chapters, the fourth being the book's conclusion. Mahmoudian deals first with syntactic problems followed by semantic issues. He examines the outstanding syntactic problems of 1) class, function and their relation, and 2) minimal units and their identification.

In terms of semantics, Mahmoudian looks at the notions of **features**, **fields**, and **context** within the lexicon and the grammar. He believes that the three notions are interdependent within both lexical and grammatical semantics. However, the hierarchy needed to account for the relevance of each of these notions is different for grammatical units and lexical units due to the difference in the nature of these two.

Mahmoudian delves deeper into semantics as he examines some classical theses in this area. He touches on the user's awareness of meaning, the heterogeneity of semantics, semantic awareness versus phonological awareness, and conscious knowledge versus operational knowledge. From his experimental perspective, Mahmoudian tries to justify different positions based upon their empirical adequacy.

A well written book, Mahmoudian's presentation will challenge students of linguistics to deeper thought and provide avenues of further research.

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Head-Driven Phrase Structure Grammar. By CARL POLLARD and IVAN A. SAG. Chicago: The University of Chicago Press, 1994. Pp. xi, 440. $34.95.

Reviewed by CHERYL A. BLACK
SIL—Mexico Branch and North Dakota SIL

Head-Driven Phrase Structure Grammar (HPSG) is basically an eclectic theory of the best ideas taken from Categorial Grammar (CG), Discourse Representation Theory (DRT), Generalized Phrase Structure Grammar (GPSG), Government-Binding Theory (GB), Lexical-Functional Grammar (LFG), situation semantics, and computational work in knowledge representation and the unification of feature structures. The fundamentals of the theory were presented in *Information-Based Syntax and Semantics: Volume 1* (Pollard and Sag 1987), covering the nature of features, categories, lexical entries, rules and principles, the relationship between syntax and semantics, and technical aspects of the formalism. The current work was originally intended to be a successor to Volume 1. A number of revisions were necessary in the technical assumptions, however, so the new book is presented as a stand-alone or self-contained introduction to the theory, with no presupposition of knowledge of Pollard and Sag (1987).

The goal of this work on HPSG is to demonstrate the applicability of the theory to a wide range of empirical problems, including the control of 'understood' subjects, long-distance dependencies such as wh-movement, and pronoun-antecedent relationships. Since detailed accounts of these phenomena have been given under the 'standard' derivational theory established by Noam Chomsky (currently known as GB or the 'principles and parameters' approach), comparisons are made between the two accounts. Some of the similarities noted between HPSG and GB are that in both theories structure is determined by the interaction of parameterized universal principles of grammatical well-formedness with highly articulated lexical entries, while rules are reduced to a few universal phrase structure schemata. In both theories, phonetically empty constituents are central to the account of wh-movement (though the suggested revisions in Chapter 9 may eliminate the need for traces in HPSG). A number of key GB principles, such as Binding Theory, Subjacency, the Empty Category Principle, and the Projection Principle, also have similar analogs in HPSG. One of the key differences between the two theories is that HPSG is nonderivational and does not involve any notion of transformation. Instead, attributes of linguistic structure are related by structure sharing (or token identity) between substructures.

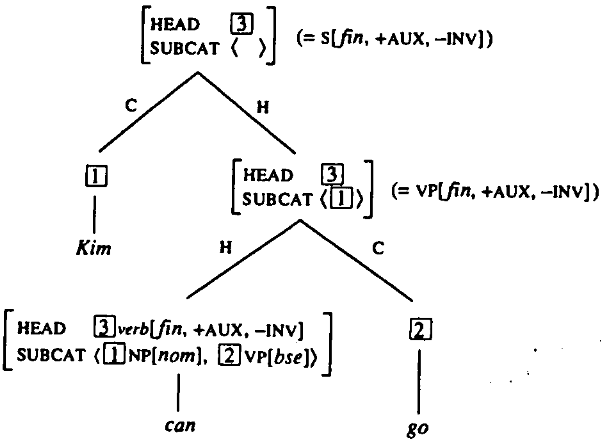
HPSG is a 'sign-based' grammar which integrates information on the phonology, syntax, and semantics of each linguistic object into a feature structure. The feature structure for the English pronoun **she** is given in the form of an Attribute-Value Matrix in (1) (taken from p. 20).

(4)

$$\left[\begin{array}{ll} \text{PHON} & \langle \textit{she} \rangle \\ \text{SYNSEM} & \left[\begin{array}{ll} \text{LOCAL} & \left[\begin{array}{ll} \text{CATEGORY} & {}_{cat}\left[\begin{array}{ll}\text{HEAD} & {}_{noun}[\text{CASE } \textit{nom}] \\ \text{SUBCAT} & \langle\ \rangle\end{array}\right] \\ \text{CONTENT} & {}_{ppro}\left[\begin{array}{ll}\text{INDEX} & \boxed{1}\ {}_{ref}\left[\begin{array}{ll}\text{PER} & \textit{3rd}\\ \text{NUM} & \textit{sing} \\ \text{GEND} & \textit{fem}\end{array}\right] \\ \text{RESTR} & \{\ \}\end{array}\right] \\ \text{CONTEXT} & {}_{context}\left[\text{BACKGR}\ \left\{ {}_{psoa}\left[\begin{array}{ll}\text{RELN} & \textit{female} \\ \text{INST} & \boxed{1}\end{array}\right]\right\}\right]\end{array}\right]_{local}\end{array}\right]_{synsem}\end{array}\right]_{word}$$

These feature structures are related to one another by trees, each subpart of which is licensed by one of six Immediate Dominance schemata. The tree for a simple example is given in (2) (taken from p. 42).

(28)



The coverage of the book is quite broad. Chapter 1 introduces the basic system of signs in HPSG, as well as the principles and schemata used. The next seven chapters cover agreement, complement structures, unbounded dependency constructions, relative clauses, Binding Theory, complement control, and aspects of interpretation. Chapter 9 then gives reflections and proposes possible revisions. While the majority of the examples are from

English and a fairly complete English grammar is included in the Appendix, examples from forty other languages are also analyzed. This work is well-indexed by names, languages, and subjects which makes it easy to use. Those undertaking syntactic analysis of related phenomena in their language would benefit from studying the insights in this book.

How would the theory of HPSG and this book in particular be useful to the field linguist? Information about the phonology, syntax, and semantics of each word is stored in a single feature structure, with phrases and larger linguistic units built up compositionally. This would seem to fit in well with the LinguaLinks (the Project 95, or CELLAR system), where each word or larger unit is an object. The theory is formal and precise so processing can be done computationally. However, the HPSG system checks the principles against the feature structures in a declarative manner, so it could not be implemented directly on the unification-based SIL-PATR program.

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The language instinct: How the mind creates language. By STEVEN PINKER. New York: William Morrow, 1994. $23.00.

Reviewed by CLAUDIA BRUGMAN
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I heard about this book on the NPR show, *Talk of the Nation*. Pinker was being excoriated by a caller for promoting the downfall of the English language. He responded in a both cogent and gracious way, presenting an anti-prescriptive attitude toward language use.

Generally, the book is an argument in favor of considering the language capacity as innately given. Secondly, it identifies the better known constructs of generative grammar as those innately-given faculties.

The Table of Contents with comments is a follows:

1. 'An instinct to acquire an art' introduces the language capacity and the endeavors of linguistics. Chomsky's contributions highlight the 'mental grammar' to the exclusion of non-Chomskian linguists.
2. 'Chatterboxes' explicates the idea of the innate drive toward linguistic complexity: that all languages and varieties are equally complex, and that children are driven to acquire complexity with or without complex input.
3. 'Mentalese' discusses somewhat haphazardly the issue of the relationship between language and thought. Pinker says Whorf claimed that thought is the same as language (p. 57); he obscures the distinction between lexical and grammatical structure (p. 61); he implicitly equates perception with cognition (p. 62); and he makes a specious distinction between 'thinking in words' and 'thinking in mental images' (p. 70, 72).
4. 'How language works' introduces the ideas that a grammar is a device for producing an infinitely large set of sentences and that its rules are not identical to those which make sense of words.
5. 'Word, words, words' is about morphology: inflection vs. derivation, the constituency of the word, regular vs. irregular forms, and his well-known argument for the Toronto Maple Leafs.
6. 'The sounds of silence' is about phonetics and phonology. The point in this chapter is that our mental representations of sound structure have a lot more to them than how to make a sound or how to hear one. For some reason Pinker also discusses English spelling conventions here, and not too well.
7. 'Talking heads' introduces the problems of sentence comprehension. Pinker introduces 'branching' and explains why processing constraints make some kinds of structures harder to parse than others. He also talks about structural and lexical ambiguity as parsing problems, and then (in a slightly boggling sweep from the Watergate transcripts to indirect speech acts) shows how parsing a sentence is only the first step in understanding language as used.
8. 'The Tower of Babel' goes from the particular to the universal (p. 237):

> Chomsky's claim that from a Martian's eye-view all humans speak a single language is based on the discovery that the same symbol-manipulating machinery, without exception, underlies the world's languages.

Pinker gives parameter-setting as evidence for evolution: whereas it would be too costly, from an evolutionary point of view, for a person to have a particular language hard-wired, it is much less costly to wire in the option sets.
9. 'Baby born talking—describes Heaven' runs down the order and approximate schedule for first language acquisition, and the precedence of

comprehension over production. Pinker also talks about the importance of errors in inducing the properties of the child's approximations to grammar.
10. 'Language organs and grammar genes' describes what is known about the anatomy of the 'language' cortex based on behavioral correlations.
11. 'The big bang' is devoted to the evolutionary question and the one that discusses critically the efforts to teach linguistic skill to nonhuman primates.
12. 'The language mavens' discusses the issue of prescriptivism. Here Pinker rebuts the argumentation of the Safires et al. with discussions of the motivation behind common 'grammatical errors'.
13. 'Mind design' is a kind of wrap-up on the nature/nurture debate from an evolutionary perspective. It is especially critical of models which emphasize cross-linguistic or cross-cultural differences to the exclusion of universals in order to downplay the importance or role of whatever biological (including cognitive) capacities are shared by the species.

One property of this book which I applaud is the glossary which contains lay definitions, often with exemplification, of the technical terms from linguistics, cognitive science, and evolutionary biology which Pinker uses liberally (but generally comprehensibly) in the text. A few examples of these terms are: finite-state device; dative; top-down. There are also an extensive bibliography and a comprehensive index.

Apart from my disagreements with some of Pinker's premises and conclusions, I liked this book. Pinker's style comes as close as one might hope to a series of well-paced public lectures on these topics. In a few places his reader-friendly style breaks down and Pinker slips into detailed descriptions of points of grammatical theory which are not important to his overall agenda. (He does this less often with the biological arguments, perhaps because there is generally less of this kind of discussion.) One corollary to this easy style is a kind of curled-lip disdain for the technical vocabulary and detailed modeling of linguistics (which, again, finds no parallel in the discussions of the other sciences): Michael Gazzaniga's back-cover blurb says 'He spares the reader the mumbo jumbo of linguistics...'

[Note: This review is abridged from the original posted on the Linguist discussion list. If interested in a more complete version, contact Claudia Brugman, Linguistics Section, School of Languages, University of Otago, P. O. Box 56, Dunedin, New Zealand. E-mail: agfox@gandalf.otago.ac.nz]

Computational linguistics and formal semantics. By MICHAEL ROSNER and RODERICK JOHNSON, eds. New York: Cambridge University Press, 1992. Pp. 321. Hardcover. $74.95, paper $24.95.

Reviewed by ALAN BUSEMAN
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This volume of papers is from a collaborative research project and workshop organized by the IDSIA Institute of the Dalle Molle Foundation in Lugano, Switzerland. The purpose of the project was to promote constructive interaction between the disciplines of Computational Linguistics and Artificial Intelligence. The book contains of a variety of papers in both areas. The papers in each area generally try to explain to practitioners in the other area the importance and relevance of some particular theory or approach.

Like Reyle (1988), this book is a record of some of the efforts of computational linguists and theoretical linguists to find a common ground. It seems obvious that applications such as machine translation and question answering systems should benefit from linguistic theories, and that linguistic theories should improve when they meet the real world in applications. But this does not happen automatically. The goals of application developers are sufficiently different from those of theoretical linguists that there is often relatively little helpful interchange between the two. Both of these books are the result of EEC funded workshops designed to increase such interchange.

Of the ten papers, four are on a semantic representation called Situation Schemata, three are on the semantic theories of Montague, two are on other related topics, and one is a summary of the workshop.

The papers on Montague-style semantics focus mostly on ways of extending it to handle the complexities of real language that occur in natural language applications. Montague designed a semantic structure based on higher order intentional logic and connected it to a syntactic system based on categorial grammar. The result is a very clean and powerful system. The papers in this book generally take the view that while Montague's concepts are very powerful, the details of his theories need some expansion before they can adequately handle a number of the language phenomena that are problematic in computational linguistics. These papers generally assume some prior familiarity with Montague grammar.

The papers that relate to Situation Schemata are more explanatory in nature. The first one is a good overview by Martin Kay of the unification operation, showing its power and usefulness. Unification is a carefully defined way of combining two feature structures. It lies at the core of unification grammar systems such as LFG (Lexical-Functional Grammar) and HPSG (Head-driven Phrase Structure Grammar). (It is also one of the primary algorithms of the SILPATR syntactic parse program, although I recommend Shieber (1986) as a better introduction to SILPATR unification.) Situation Schemata are basically feature structures, and the other papers focus mostly on how the feature structures built by parsers can be connected to the Situation Schemata semantic feature structures. For example, an interesting paper by Per-Kristian Halvorsen shows how the LFG formalism can be extended to include mappings to semantic structures. The result extends the power of LFG such that some problematic things such as scope can be handled much more cleanly.

A paper by Sergei Nirenburg and Christine Defrise describes the semantic portion of the CMU machine translation system. This is a fairly thorough system that addresses such interesting problems as the degree of confidence and the attitude of the speaker toward each clause in the text being analyzed.

This book largely assumes some prior knowledge of computational linguistics and will be of most interest to readers who want to freshen their awareness of current developments in computational linguistics and machine translation.

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Ergativity. By R. M. W. DIXON. New York: Cambridge University Press, 1994. Pp. 271. Hardback $59.95, paperback $19.95.

Reviewed by DESMOND C. DERBYSHIRE
SIL—International Administration

In the preface to the book, Dixon tells us: 'When I first went out to Australia to study an indigenous language in 1963, the word "ergative" wasn't in my linguistic vocabulary.' His fieldwork on the Dyirbal language changed all that and resulted in Dixon (1972). It was not, however, until the publication of the articles by Comrie (1978) and Dixon (1979) that the scope of ergativity became better understood. Dixon now estimates that ergativity occurs in 25 percent of the world's languages.

This book is an excellent summary of what has been reported about many of these languages in the past 20 years and covers almost every aspect of ergativity. It is full of illustrative data from a wide range of genetically distinct and geographically diverse languages. (Europe and Africa are the two major areas where there is little evidence of ergativity, but there is some.) In Dixon (1979) there were references to only two South American languages; in the present volume over 40 are mentioned. But D offers us much more than data. He proposes a number of generalizations which appear to hold good for the data he discusses but which need to be tested with data from as many languages as possible. These pertain to the type of constructions in which ergativity can be expected to show up, as well as to other related systems (e.g., nominative-accusative, active-stative, switch-reference, and semantically based systems), and to grammatical relations in general. Both theoreticians and field linguists (whether or not the language on which they specialize is, in any way, ergative) will find something in this book to inform and challenge them. Chapter 1 begins with definitions (p. 1):

> The term, ergativity, in its most generally accepted sense is used to describe a grammatical pattern in which the subject [S] of an intransitive clause is treated in the same way as the object [O] of a transitive clause and differently from transitive subject [A] ... 'ergative' is the case marking transitive subject, contrasting with another case ... 'absolutive'—marking intransitive subject and transitive object. Ergativity is thus complementary to the familiar pattern of accusativity, in which one case (nominative) marks both intransitive and transitive subject, with another case (accusative) being employed for transitive object.

D notes some non-standard uses of the term, ergativity, which have appeared in the literature.

Within the clause, ergativity shows up principally as 'morphological ergativity', in case-marking on nominals (to which the above definitions more directly refer) and/or cross-referencing markers on verbs, and sometimes also in constituent order patterns. In complex sentences containing coordinate or subordinate clauses, 'syntactic ergativity' can also occur to govern syntactic constraints on clause combining and coreferential deletion of S, A, and O constituents. Morphological ergativity is much more common than syntactic ergativity.

The following Dyirbal examples, taken from the book, illustrate morphological (case-marking) ergativity. The ABS(olutive) case marker is a null realization and occurs with intransitive subject (S) and transitive object (O). The ERG(ative) case has an overt marker, *-ŋgu*, and occurs with transitive subject (A).

Morphological ergativity (Dyirbal data):

(1) *ŋuma* *banaga-n^{y}u*
father+ABS return-NONFUT
father(S) returned

(2) *yabu* *banaga-n^{y}u*
mother+ABS returned-NONFUT
mother(S) returned

(3) *ŋuma* *yabu-ŋgu* *bura-n*
father+ABS mother-ERG see-NONFUT
mother(A) saw father(O)

(4) *yabu* *ŋuma-ŋgu* *bura-n*
mother+ABS father-ERG see-NONFUT
father(A) saw mother(O)

Chapter 2 discusses the two basic strategies languages use for marking relations between constituents of a sentence—syntactically based marking and semantically based marking. In most languages the first strategy is predominant, being based on grammatical relations, and these are the languages to which the terms accusative system or ergative system are applicable. The other strategy, with marking based directly on semantic roles, is less common in languages.

Chapter 3 takes a closer look at the various mechanisms that are used in different languages for the actual marking of constituents within a clause, comparing accusative and ergative systems. Many languages have a mixture of the two systems, and chapter 4 documents the many types of split systems that occur. The most common conditioning factors for such splits are described and illustrated: semantics of the verb, semantics of the referents of the nominals (pronominals and NPs), tense/aspect/mode systems, and 'main' versus 'subordinate' clause splits.

Chapter 5, on subject properties and the role of subject in syntactic operations, is especially important for understanding D's insistence throughout the book on the need to recognize S (intransitive subject), A (transitive subject), and O(bject) as the basic syntactic relations, not just S(ubject) and O(bject), as is assumed in many models of linguistic theory. (This and other weaknesses of some theoretical models in relation to ergativity is taken up briefly in an Appendix to the book.)

The topic of chapter 6 is syntactic ('inter-clausal') ergativity, relating to syntactic constraints which apply when there is a sequence of clauses (coordinate or subordinate) in a complex sentence. The following are examples, taken from the book, of ergatively organized coordinate clauses in Dyirbal.

Syntactic ergativity (Dyirbal data):

(5) *ŋuma* *banaga-n^yu* *yabu-ŋgu* *bura-n*
father+ABS return-NONFUT mother-ERG see-NONFUT
father(S) returned and mother (A) saw (him) (O)

(6) *ŋuma* *yabu- ŋgu* *bura-n* *banaga- n^yu*
father+ABS mother-ERG see-NONFUT return-NONFUT
mother(A) saw father(O) and (he) (S) returned.

In Dyirbal two clauses can only be joined in a coordinate structure if they share an NP which is in S or O function in each clause. The common NP is then usually omitted in the second clause, represented in (5) and (6) by the pronouns in parentheses in the English translations. D discusses at some length syntactic 'pivots' and 'pivot-feeding operations'. 'Pivot' is a term introduced in Dixon (1979), and used by others since, to refer to the grammatical functions that constrain these kinds of syntactic operations in multiple clause sentences: S and O are the pivots in syntactically ergative languages, and S and A are the pivots in accusative languages (e.g., English). Thus, in (6) above, the omission of the S pronoun would yield the English sentence 'mother saw father and returned', but in English this would have the meaning 'mother saw father and **she** returned', because A and S are the pivots in English. 'Pivot-feeding operations' refer to the use of derived structures such as passive (mainly in accusative languages) and antipassive (in ergative languages) to ensure that an NP is in the S function, when this is what is needed to satisfy the clause-combining constraint. Syntactic ergativity occurs in relatively few languages. Many of the languages in which morphological ergativity is found within a single clause have an S/A pivot for inter-clausal operations.

Languages can and do change diachronically from one system to another. The change can be from an accusative to an ergative system or vice versa. Chapter 7 is devoted to a discussion of the factors which condition such changes and the mechanisms by which the changes take place.

There is one area pertaining to syntactic ergativity and diachronic change which is hardly covered at all in the book—nominalized clauses, i.e., nonfinite subordinate clauses which have a derived, nominalized form of the verb as their nuclear constituent. Most languages, including morphologically ergative ones, use an S/A pivot for expressing the genitive in possessed nominalized constructions. (Comrie 1978 refers to this as the GENITIVE-NOMINATIVE strategy. The following English examples illustrate this strategy:

(7) **my coming** (surprised them) - genitive 'my' from S in 'I came'

(8) **my shooting** the dog (angered him) - genitive 'my' from A in 'I shot his dog'

In Cariban languages (mentioned in passing by D on p. 192) many different types of possessed nominalizations occur, and in nearly all of them the pivot is S/O (the GENITIVE-ABSOLUTIVE strategy in Comrie 1978), regardless of whether the language has main clause ergativity or accusativity (both types of intra-clausal marking are found in different languages in the Cariban family). The following examples are from Hixkaryana, which has main clause accusativity:

(9)	*romokniri*	Cf:	*komokno*
	r-omok-niri		*k- omok-no*
	1-come-POSSD.NOMLZN		1S-come-PAST
	my coming		I came

(10) *kaykusu* *woniri* *rowya*
kaykusu *wo-niri* *ro-wya*
dog shoot-POSSD.NOMLZN 1- to/by
my shooting the dog
(Lit: the dog's shooting by me)

Cf: *kaykusu* *iwono*
kaykusu *i-* *wo-* *no*
dog(O) 1(A)- shoot- PAST
I shot the dog

In (9) the genitive *r-* '1' refers to the S of the intransitive verb, and in (10) the genitive *kaykusu* refers to the O of the transitive verb, demonstrating that Hixkaryana has an S/O pivot for nominalizations. I have argued (Derbyshire 1991, referred to by D on p.192) that this nominalized (subordinate) clause strategy is one piece of evidence suggesting that the direction of change in Cariban languages has been from ergativity to accusativity in main clauses. I looked in vain for more in this book on other languages that use the GEN-ABS strategy. (D. briefly mentions Yupik Eskimo as one example, on p.176, but gives no details.)

Most of the book is concerned with grammatical relations at the clause and sentence levels, but in chapter 8 D briefly discusses certain principles of discourse organization (based largely on Du Bois 1987) which provide the pragmatic basis for ergativity and accusativity at the grammatical level. This leads on to a discussion of 'why some languages are ergative and others are not'. D first argues against explanations based on world-view and cultural traits of speakers, and against others which view ergative languages as limited with respect to certain linguistic properties (e.g., 'ergative is really passive', 'there is no class of adjectives'). He then suggests that the answer to the question is likely to be found in the semantic and discourse-pragmatic make-up of a language and the way in which this determines its grammatical profile. He calls for further investigation in this area of language as the 'most important task for future work' (p. 219). Two other things he calls for (p. 229) are: (1) the development of an integrated theory of language, viewed as a holistic phenomenon; and (2) informed descriptions of particular languages. On the latter, he says:

> If every person who called themself a linguist settled down to provide a full description of a single previously undescribed language, then he or she would justify the title.

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An interpretive analysis of quantifier postposing phenomena in Afrikaans. By JOHAN OOSTHUIZEN. Stellenbosch papers in linguistics (SPIL), No. 19. Stellenbosch, South Africa: University of Stellenbosch. 1989. Pp. 195.

Reviewed by GERT DE WIT
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Most of the SPIL contributions, like the one under review, are in the form of working papers. In the case of this book, the author deserves credit for his attempt to use the descriptive inventory of the generative grammar outside of the so-called 'core-grammar' to which much of the work of generative linguists is devoted.

The 'quantifier phrase' (QP) enjoyed some attention in the earlier days of generative grammar, especially in the seventies. Most linguists were trying to define the movement rules to describe the fact that in English a universal quantifier, such as **all**, can occur either to the left or to the right of its antecedent. Generally, they were working under the assumption that this quantifier phrase is base-generated to the left of the constituent it modifies, and that it can be moved to a position on the right of this constituent by means of a transformational rule (known as quantifier postposing). The sentence pairs (1) and (2) illustrate this phenomenon:

(1) a. **All** the prisoners would have escaped during the night
  b. The prisoners would **all** have escaped during the night

(2) a. The police caught **all** of them
b. The police caught them **all**

Technically, the postposing of the QP in (1b) is known as Q-Float and the one in (2b) as Q-Pro Flip.

In his MA thesis, 'Movement vs. binding: Two analyses of quantifier postposing phenomena in Afrikaans' (1988), Oosthuizen examined the movement of the quantifier phrase to a post-position for Afrikaans. He found that the movement rules proposed in the literature yield a large number of incorrect predictions about the surface distribution of postposed QPs. In addition, the movement devices were found to have formal properties that could not be reconciled with the concepts of the Government Binding Theory of core grammar.

The present book is a sequel to his earlier research. Oosthuizen noticed that in Afrikaans, postposed QPs of the Q-Float type behave exactly like ordinary overt NP anaphors (e.g. the reciprocal *mekaar* 'each other' For their semantic interpretation both are subject to the binding principle for anaphors and to the devices associated with it in the Government Binding Theory. In line with this observation, his two main hypotheses are that postposed QPs in Afrikaans are base-generated in their postposed positions and that postposed QPs in Afrikaans represent overt anaphors.

The author discusses neither the non-postposed QP, nor the rules of its preposing from the assumed base-generated post-position. Although he is able to account for the semantic relation between the QP and its antecedent, these limitations make it hard to evaluate to what extent his approach is an improvement on the previous one.

After the introduction in chapter 1, Oosthuizen introduces some relevant parts of the Government Binding Theory in Chapter 2. He focuses on the binding of reciprocals by their antecedents. For the readers familiar with GB Theory: the potential binder of the overt anaphor must occur in an argument position within the governing category of the anaphor and it must c-command the anaphor.

Chapter 3 is the main chapter of the book. Oosthuizen first shows that the binding principle for reciprocals holds for Afrikaans as it does for English. He then introduces his hypotheses regarding the base-generation and the overt anaphor-like qualities of postposed QPs in Afrikaans. For the base-generation of QPs he develops an enriched set of phrase structure rules.

The discussion of the hypothesis regarding the overt anaphor status of QPs involves a whole range of different constructions, including infinitival constructions and ones with more than one potential binder or more than one postposed QP. The hypothesis correctly predicts ambiguity where there is more than one potential binder. The use of the overt anaphor analysis for postposed QPs leads to the satisfactory identification of their antecedents in the other constructions, too. As with overt anaphors, only NPs serve as antecedents.

The last sections of the third chapter address some empirical and conceptual problems of the interpretive analysis. The more important ones involve the question whether QPs can be base-generated in the VP and whether QPs can have the status of overt anaphors while they fail to be assigned a thematic role and Case. Oosthuizen also shows that his analysis does not work for the so-called Q-Pro Flip constructions as in (2).

The results of this analysis as well as the problems encountered are summarized in Chapter 4.

In retrospect, the reader benefits from the clarity with which the analysis is presented. The honest way in which the problems with it are pointed out will help a future researcher with his or her more comprehensive approach which will hopefully also benefit from recent insights in generative grammar.

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Papiamentu. By SILVIA KOUWENBERG and ERIC MURRAY. Languages of the World/Materials 83, 1994. München: Lincom Europa. Pp. 57.

Reviewed by GEORGE HUTTAR
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Besides its value for creolists and Caribbean specialists, this description of Papiamentu (about 250,000 people, mostly in Aruba, Bonaire, and Curaçao) will be of interest to any fieldworker planning a brief grammatical sketch and looking for a model to follow. It is one of several dozen such sketches planned by Lincom Europa; those already in print range from 46 pages (Mbalanhu of Namibia) to 64 (two languages of Australia). This review focuses on this more general value of the book: What can you fit into a 60-page sketch?

In the present case, Kouwenberg and Murray cover the following:

- Background (4-6): a paragraph on where and how P is used, a page on orthography (including interdialectal controversy), a page on the history of P.

- Phonology (6-18): segmentals and their distribution in syllables (and words); tone and stress; 'segmental processes in the syntax' (major morphophonological processes).

- Morphology (18-35): the relevance of etymology (P Iberian-based vocabulary tends to have a different set of productive morphological processes than does its non-Iberian [chiefly Dutch] vocabulary); inflection (not much—a little case and number); reduplication; derivation (18 different processes); compounding and 'phrasal compounds' (noun + *di* 'of' + noun sequences with specialized meaning).

- Syntax (35-53): word order (P is SVO, like most known Creoles, with indirect object before direct, and same order whether constituents are nouns or pronouns); question formation; focus; passive; distribution of NPs (subject and object pronouns; reflexives); modification of the predicate (negation; tense/mood/aspect); clause types (copular constructions; complement clauses; serial verb constructions); modification of the noun (word order in NP; definiteness and plural; possessives; relativization); prepositions; comparatives.

- Text (53-54): a 10-sentence text with interlinear glosses and free translations.

- Bibliography (55-57): 73 items, of which only one or two are in P; these and the rest, except for a couple on Curaçao history, appear to be all linguistic (general, creolistics, and specific to P).

That is a pretty compressed list, but a careful reading shows that the authors succeed in covering the broad characteristics of P, including phenomena of current high interest to linguists (whatever may be the relative strength of their interest in formalist and functionalist questions), such as TMA and movement as in relativization and focus, as well as some of specific interest to creolists, such as serial verb constructions. They accomplish this quite clearly, thanks partly to their use of 157 glossed examples, the value of which is increased by some examples being used to illustrate several different things (but only given once, with cross-references—that means more page flipping, but fewer pages). The description is not cluttered with discussion of controversies over alternative analyses, yet ample reference is made to the relevant literature for those interested.

If the linguist is looking for all the details on Papiamentu structure, this book will point in the right directions through its bibliography. It is also very useful in its own right if an overview of the language is desired or if looking for ideas on what to include in a grammatical sketch, and how to organize it.

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Phonology in generative grammar. By MICHAEL KENSTOWICZ. Cambridge, Massachusetts: Blackwell Publishers, 1994. Cloth $64.95, paper $24.95.

Reviewed by STEVE PARKER
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This newly published book is a treasure chest of theory, discussion, and practice in phonological analysis following the generative tradition. Kenstowicz, one of the leading proponents of this model and a recognized authority in the field, presents the material in a lucid and clearly written style. Scattered throughout the discussion are insightful and perceptive comments allowing the reader to get a feel for how formal linguistic theory is developed and modified through interaction with real data. This work is admirably up-to-date and thorough, focusing primarily on topics which have sparked much interest and debate in the literature of the past ten years.

The first three chapters of the book constitute a review of the basic issues which drove classical generative phonology during the SPE period: binary distinctive features and their articulatory basis, formal phonological rules, redundancy, two significant levels of representation, rule ordering relationships and phonological derivations, abstractness, etc.

Chapter four introduces the basic concepts of feature geometry theory and includes a brief sketch of both speech physiology and anatomy as well as acoustic phonetics.

In the remaining seven chapters, Kenstowicz explores theoretical issues in several areas of current research. In chapter five, for example, he discusses the relationship between phonology, morphology, and the lexicon. Chapter six deals with topics relating to syllable and its internal structure, including motivations for the inclusion of the syllable in linguistic theory. Chapter seven consists of extensive treatments of tonal phenomena and vowel harmony within the well-known autosegmental model. In chapter nine the focus returns to the nature of the formal representation of distinctive features and the relationship between them. Chapter ten addresses the issue of stress and rhythm within the framework of metrical phonology.

As mentioned above, one of the driving forces in recent theoretical pursuits has been the nature of the syllabification process. One of the classic arguments for the reintroduction of the syllable into formal linguistic representations is that such a move enables us to simplify and consolidate what might otherwise appear to be unrelated phonological rules. For example, citing Harris (1983) and Itô (1986), Kenstowicz refers to the following morpheme alternations in Spanish:

(1)	*yugo-slavo*	'Yugoslav'
	eslavo	'Slavic'
	mes	'month'
	mes-es	'months'
	abr-ir	'to open'
	aber-tura	'opening'

Each of the above pairs illustrates a process by which the vowel [e] is inserted in a different position of the word. If we did not have recourse to syllable structure we would have to state the three environments as follows:

(2)	#	_____	s C	(in the case of *eslavo*)
	C	_____	s #	(in *meses*)
	C	_____	r C	(in *abertura*)

What all of these distinct contexts share in common is that the vowel [e] gets inserted immediately to the left of a consonant which cannot be syllabified (due to constraints specific to Spanish). The underlying forms of these three words would initially be parsed or divided as follows: *s{la}{vo}*, *{mes}s*, and *{ab}r{tu}{ra}*. In the ensuing discussion Kenstowicz shows how the correct results can be obtained by matching the phonemes of each word with a basic syllabic 'template' moving from right to left. In this view the epenthetic [e] is seen as an unmarked, default vowel which provides a syllable peak for the 'stranded' consonants with which to be associated.

Another area of intense current research involves the arrangement of the traditional distinctive features into a hierarchical, geometric tree. In this approach, each feature exists on a distinct tier or plane separate from the others yet connected to them by 'association lines', somewhat like the structure of a mobile hanging from a ceiling. This conceptualization of the components of speech then allows us to explain patterns of behavior specific to particular features. For example, in Latin the basic form of the adjectival suffix is *-alis* (Steriade 1987).

(3)	*nav-alis*	'naval'
	manu-alis	'manual'

When the root to which this suffix is attached contains an *l*, the liquid in the suffix changes to *r*, a process of dissimilation:

(4)	*sol-aris*	'solar'
	milit-aris	'military'

These facts motivate the following informal rule and structures:

(5) [+lateral] → [-lateral] / [+lateral] _____

```
mi l i t  -  a l i s  → mi l i t  -  a r i s
   |            |            |            |
   |            |            |            |
 [+lat]       [+lat]       [+lat]       [-lat]
```

Note that in order for the derivation in (5) above to work correctly, it is crucial that the /t/ in [*militaris*] NOT be specified as [-lateral]. This is necessary in order for the two specifications of [+lateral] in the underlying form /*milit-alis*/ to be considered 'adjacent', so that the rule in (5) can apply. However, when two such *l*'s are separated by an intervening *r*, the dissimilation process does NOT take place:

(6)	*flor-alis*	'floral'

This suggests the following representation:

$$
(7)\qquad \begin{array}{ccccccc}
\text{f} & \text{l} & \text{o} & \text{r} & + & \text{a} & \text{l} \ \ \text{i} \ \ \text{s} \\
 & | & & | & & & | \\
 & | & & | & & & | \\
 & [+\text{lat}] & & [-\text{lat}] & & & [+\text{lat}]
\end{array}
$$

Since the underlying /r/ in (7) is specified as [-lateral], the two instances of [+lateral] in this word are not adjacent, so the rule in (5) is blocked. As simple as this analysis might appear to be, it raises the critical question of why *r* is specified as [-lateral], but *t* is not? The basic issue is one of redundancy, and a whole field (known as Underspecification Theory) has arisen to deal with this controversy. In the text, Kenstowicz elaborates on the importance of factors such as these in explaining the behavior of various distinctive features as they interact with one another.

Along with a broad array of coverage of all areas of current phonological research, Kenstowicz also includes practical exercises at the end of each chapter which vary in terms of length and difficulty and which further illustrate the main focus of the accompanying discussion. These problem sets are an extra selling point and, when combined with a tremendously complete and up-to-date bibliography, a topical index, and an index of languages are certain to make this indispensable book the standard text for advanced courses in phonological theory for many years to come. An added plus is that each chapter is more or less independent of the others and thus the instructor may pick and choose which topics to cover and can even present them in a different order than they appear in the book.

A somewhat natural by-product of the scope and depth of this work is that it can be quite challenging for upper-level undergraduate and even beginning graduate students; this is not light reading. After the third chapter the discussion becomes quite heavy at certain points, in keeping with the tendency of much current literature to be increasingly technical. As Kenstowicz himself points out in his preface to the book, only the first four chapters are suitable for a beginning course in phonology. Our experience in using a pre-publication draft of this text in an advanced course at North Dakota SIL in 1993 is that our students there found the book rather difficult to understand overall. Furthermore, the problem sets which accompany each chapter are, in many cases, more theoretically oriented than practical in nature, thus offering less opportunity to the students to get hands-on experience in solving longer morphophonemic problems than the exercises in a work such as Kenstowicz and Kisseberth (1979). Nevertheless, in spite of these drawbacks from a pedagogical point of view, the book has so many other compensating and compelling factors to recommend it that it is destined to become a classic and unavoidable work which will benefit all students of the discipline of generative phonology.

There is also now available a teacher's guide with suggested answers to the practice problems at the end of each chapter. However, although it is helpful as far as it goes, it unfortunately is incomplete in that it does not give the solution to every exercise; only about one-half of the problems are discussed.

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[Steve Parker, ILV, Apdo, 52; Pucallpa, Peru.]

Natural language and universal grammar: Essays in linguistic theory, Volume I. By JOHN LYONS. New York: Cambridge University Press. 1991. Pp. xv, 290.

Reviewed by THOMAS M. TEHAN
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Do you feel this is an appropriate definition of linguistics?

'Linguistics is the scientific study of language.'

Or do you like:

'Linguistics is the scientific study of languages.'

Or perhaps you prefer:

'Linguistics is the scientific study of language theory.'

Whatever definition you choose, John Lyons will challenge and deepen your understanding of what linguistics is. This book will enrich your concept of what it is you are doing when you say you are doing linguistics.

John Lyons, Master of Trinity Hall, Cambridge University, has collected together in this volume several of his important essays on language. This is not a textbook. It contains no exercises or illustrations and very few tables, most of which are simply lists of rules. This book will NOT overwhelm you with derivational trees and generative rules.

The book consists of a Preface (five pages), nine articles (178 pages), an Appendix (23 pages), 38 pages of Notes, 38 pages of References (really a comprehensive bibliography), Subject Index, and Names Index. The articles represent Lyons' work across four decades (the 1950's to 1990's).

Three of the articles are published here in this form for the first time. The remaining six articles are either extensively revised or supplemented by copious notes. Reading the section called Notes is necessary for any in-depth understanding of Lyons' thoughts; this is one of those books that requires two bookmarks—one for the text and one for the Notes. (One nice mechanical feature to this book is that the Notes section has a changing header that indicates which pages in the text are referred to by the notes on the particular page. This helps the readers find their place and refer back and forth without leafing through several pages of notes trying to figure out if they are in chapter 3's notes or chapter 4's.)

Chapter 1, 'Language, speech and writing' (expanded from a 1981 version), discusses human language (language used by humans) and natural language (language not specially constructed). Lyons sees Chomsky as tending to limit linguistics to a branch of cognitive psychology, and differs with this view.

Chapters 2, 3, and 4, previously unpublished in this form, are interrelated. In them, Lyons sets forth his views on linguistics and linguistic theory. Lyons' initial training was in classics and historical/comparative philology. He built his own theories of linguistics, combining Chomskyan generative transformational grammar (TG) and structuralism together with traditional grammar. As he continued to explore TG, he found greater divergences between standard theory and his own position. He still supports generative grammar but not 'generativism' (associated with a 'God's truth' approach, p. 224), with its emphasis on cognitive psychology and unique definition of universalism. He is especially troubled by the way that generativism has dominated linguistic theory and by the narrow range of language data that is used to support generativism.

Chapter 2, 'In defense of (so-called) autonomous linguistics', (based on an unpublished 1982 paper) contrasts 'theoretical linguistics' with 'linguistic theory'. Here Lyons argues that linguistics can be studied as a discipline in itself and not as a subdivision of logic, philosophy, literary criticism, psychology, anthropology, etc., although it should not be isolated from these disciplines. He revives two terms: 1. microlinguistics, the study of only the structure of the language systems; 2. macrolinguistics, the study of 'everything that pertains in any way at all to language and linguistics' (p. 207). These terms are not to be confused with applied and theoretical linguistics. After discussing several implications and reasons for these statements, he discusses methodology in linguistic study. For instance, microlinguistic study investigates 'the relation between the data [of a language] and the model [that the linguist is building in his description]' (p. 21).

Chapter 3, 'Linguistic theory and theoretical linguistics' is based on a 1988 article. Here Lyons accomplishes part of his goal in bringing together these essays, which in this case is to lend some substance and clarity to expressions such as 'natural language', 'universal grammar', *'langue'*, *'langage'*, 'language', 'utterance', 'speech', 'theoretical linguistics', 'linguistic theory' and even 'linguistics' itself. He also introduces his own terms, such as 'N- languages', which 'are normally thought of, pre-theoretically and prototypically, as languages' (p. 29).

In Chapter 4, 'Natural, non-natural and unnatural languages: English, Urdu and other abstractions' is based on an unpublished 1985 paper. Here Lyons continues to develop his ideas on grammars as abstract models. He argues that several different views of language (or a language) can be entertained without negating each other. Thus, even though we view languages as natural entities, we or others may also view them as abstractions or supra-individual social entities.

I was disappointed with Chapter 5, 'The origin of language, speech, and languages' (based on a 1987 article). Lyons states that a Creationist/ex nihilo view of language origin is a logical possibility, but goes on to say that he feels there must be some evolutionist explanation (gradualist or catastrophic) for the origin of language (he just doesn't know what it is). He feels that a gestural 'theory, or myth' (p. 95) of origin is the most promising to investigate, even though he admits the evidence for it is 'not very strong' (p. 93).

Chapters 6 and 7 are well known linguistic articles. To these unchanged articles, Lyons has added epilogues and extensive notes.

Chapter 6, 'Phonemic and non-phonemic phonology: some typological reflections' was published first in 1962. Lyons favors a prosodic model (two-dimensional and polysystemic) over a phonemic one (unidimensional and monosystemic).

Chapter 7, 'Towards a "notional" theory of the "parts of speech"' (first published in 1966), explains his view of universal grammar and how it differs from the views of generativists and Chomskyan theorists. His main self-criticism has to do with his terminology, some of which was imprecise when he first used it and some of which has been used in other ways since his writing, resulting in obscuring his original meanings. Many pages of his notes and epilogue correct his terminology and explain exactly what it was he was (and is) trying to say. The article examines what it is we mean when we use 'parts of speech' in a language description or in a discussion of universals, in a discussion of syntax or the lexicon.

The next two chapters, 8 and 9, complement each other. Both discuss pronouns and both argue that deixis is the source of reference.

Chapter 8, 'Deixis as the source of reference' was published in 1975. In this paper, Lyons seeks to describe how children refer to things and the implications for our own understanding of the class we call 'pronouns'. He discusses the complexities of references among types of nouns, the definite article, demonstratives, and third-person pronouns.

Chapter 9, 'Deixis and anaphora', was published in 1978. Here he argues 'that deixis is both ontogenetically and logically prior to anaphora, [meaning] that the deictic use of pronouns and other such logical expressions precedes their anaphoric use in the earliest states of language-acquisition and, furthermore, that anaphora as a grammatical and semantic process is inexplicable except in terms of its having originated in deixis' (p. 166). He notes,

> ... it is not at all uncommon for linguists to describe the meaning of pronouns, as far as possible, in terms of anaphora and to treat that part of the use of pronouns which is irreducibly deictic [identification by pointing] as a theoretical embarrassment that is best forgotten (p. 166).

The Appendix, 'The scientific study of language', is Lyons' Inaugural Lecture at Edinburgh, 1965. He claims

> ... a place for linguistics at all levels and in many areas of university activity, [stressing] both its links with other subjects and at the same time its status as a relatively unified and autonomous science (p. 179).

This seems to me not only the thesis of this lecture, but a major unifying theme of the book.

[Thomas M. Tehan, c/o Patterson Park Church, 3655 E. Patterson Rd., Dayton, OH 45430-1329]

■

'LANGUAGE LEGISLATION': AN INTERNATIONAL CONFERENCE
University of Illinois, Urbana-Champaign—28-30 March 1996

A select group of invited speakers from around the world will address social issue such as community vs. individual rights, cultural survival, free trade and linguistic issues such as language and culture, language and power, bilingualism. Email: dkibbee@uxl.cso.uiuc.edu

CONCEPTUAL STRUCTURE, DISCOURSE AND LANGUAGE II CONF.
State University of New York, Buffalo—12-14 April 1996

Sponsors: Linguistics Dept., Center for Cognitive Science, Conf. in the Disciplines

Invited Speakers: Melissa Bowermann, Max-Planck Inst. (Netherlands); Jack DuBois, U. of Calif. (Santa Barbara); Derdre Gentner, Northwestern U.; Annette Herskovits (Wellesley College (tentative); Gilles Fauconnier, U. of California (San Diego); George Lakoff, U. of California, Berkeley; Ronald Langacker, U. of California (San Diego); Leonard Talmy, State U. of New York.

The committee welcomes abstracts for papers on conceptual structure, discourse, metaphor, lexical semantics, pragmatics, theoretical foundations, grammaticalization, constructions, psycholinguistics, computation, and acquisition. Due 15 Nov. 1995—CSDL, Dept. of Linguistics, 684 Baldy Hall, State University of New York at Buffalo, Buffalo, NY 14260-1030. For more information contact the above address.

INTERNATIONAL CONFERENCE ON COMPUTATIONAL LINGUISTICS
(COLING)—University of Copenhagen—5-9 August 1996

Tutorials will be organized 2-3 August. Sunday, 4 August will be used for workshops. Proposals for workshops and/or tutorials should be sent to the local organizer, whereas questions related to the program should be addressed to the program chairman (see below).

Deadlines: Submission—15 Dec. 1995; Notification of acceptance—15 March 1996; Submission of final papers—May 1, 1996.

Chairman of program committee: Professor Jin-ichi Tsujii, email: tsujii@ccl.umist.ac.uk
Director and local organizer: Professor Bente Maegaard: email: bente@cst.ku.dk.

FOURTH INTERNATIONAL CONFERENCE ON SPOKEN LANGUAGE PROCESSING—Philadelphia, PA—3-6 Oct. 1996

Presentations range from basic acoustic phonetic research to clinically oriented speech training devices to speech-based natural language interfaces for man-machine interaction. Satellite workshops will be held in conjunction with the conference in the areas of interactive voice technology, spoken dialogue, speech databases and speech I/O, and gestures and speech.

Dates to note: Abstracts due for review—15 Jan. 1996; Acceptance notification—15 March 1996; deadline for papers—1 May 1996. For more information contact: ICSLP 96; Applied Science & Engineering Laboratories; A.I. duPont Institute; P. O. Box 269; Wilmington, DE 19899. Email: ICSLP-abstract@asel.udel.edu.

Books Available For Review

The following books are available for review by our readers. If you wish to do a book review for publication in *Notes on Linguistics*, contact the editor, and the book will be shipped to you along with instructions for submitting the review. When you submit a review, the book is yours to keep. Contact:

Notes on Linguistics; Attn: Linguistics Coordinator
7500 West Camp Wisdom Road; Dallas, TX 75236
Internet email: judy.payne@sil.org.

Aarts, Bas and Charles F. Meyer, eds. The verb in contemporary English: Theory and description. 1995. New York: Cambridge University Press. 313 pp. $59.95.

Abu-Absi, Samir. Chadian Arabic. Languages of the World/Materials 21. 1995. Germany: LINCOM EUROPA. 44 pp.

Bloomer, Robert. System-congruity and the participles of modern German and modern English: A study in natural morphology. 1994. Hamburg, Germany: Helmut Buske Verlag. 124 pp. Paper 58 DM.

Clyne, Michael. Inter-cultural communication at work: Cultural values in discourse. 1995. New York: Cambridge University Press. 250 pp. $54.95.

den Dikken, Marcel. Particles: On the syntax of verb-particle, triadic, and causative constructions. Oxford studies in comparative syntax. 1995. New York: Cambridge University Press. 288 pp. Cloth $45.00.

Fagborun, J. Gbenga. The Yoruba Koiné - Its history and linguistic innovations. 1994. Germany: LINCOM EUROPA. 167 pp. $26.00.

Flowerdew, John, ed. Academic listening: Research perspectives. 1995. New York: Cambridge University Press. 306 pp. Hardback $47.95, paperback $19.95.

Franks, Steven. Parameter of Slavic morphosyntax. 1995. New York: Oxford University Press, 198 Madison Ave., New York, NY 10016. xii, 409 pp. Cloth $75.00, paperback $39.95. (2 copies to publisher)

Hamp, Eric P., et al, eds. Readings in linguistics I & II (Abridged edition). 1995. Includes 39 journal articles published between 1925-1954, i.e. Sapir's 'Sound patterns in language', Swadesh's 'The phonemic principle', Harris' 'From morpheme to utterance', Firth's 'Sounds and prosodies', Kurylowicz' 'Linguistique et théorie du signe'. (Eleven articles in French, one in German, most in English.) Chicago: The University of Chicago Press. 302 pp. Paper $19.95.

Holliday, Adrian. Appropriate methodology and social context. 1995. New York: Cambridge Univesity Press. 237 pp. Hardcover $42.95, paper $16.95.

Johnson, Karen E. Understanding communication in second language classrooms. 1995. New York: Cambridge University Press. 187 pp. Hardback $42.95, paperback $16.95.

Malchukov, Andrei L. Even. Languages of the world/Materials 12. 1995. Germany: LINCOM EUROPA. 48 pp.

Nerbonne, John, et al, eds. German in head-driven phrase structure grammar. 1994. CSLI Lecture Notes No. 46. Stanford: CSLI Publications. 404 pp. Paper $22.25.

Ojeda, Almerindo. Linguistic individuals. 1993. CSLI Lecture Notes Number 31. Stanford, CA: Center for the Study of Language and Information, Stanford. 212 pp. Paper $17.95.

Plank, Frans, editor. Double case: Agreement by suffixaufnahme. 1995. New York: Oxford University Press. xvi 500 pp. $75.00

Ravid, Dorit Diskin. Language change in child and adult Hebrew (A psycholinguistic perspective). 1995. New York: Oxford University Press. 233 pp. Cloth $45.00, paperback $22.00.

Sampson, Geoffrey. English for the computer: The SUSANNE corpus and analytic scheme. 1995. New York: Clarendon Press, Oxford. 499 pp. Cloth $90.00

Santa Barbara papers in linguistics vol. 5. Shoichi Iwasaki, , et al, eds. East Asian linguistics. 1994. CA: Linguistic Department, University of California, Santa Barbara. 263 pp. $15.00

Santa Barbara papers in linguistics, vol. 6. Carol Genetti, , ed. Aspects of Nepali grammar. 1994. CA: Linguistic Department, University of California, Santa Barbara. 248 pp. $15.00

Troelstra, A. S. Lecture notes: Lectures on linear logic. 1992. (CSLI Lecture Notes No. 29) Stanford, CA: Center for the Study of Language and Information, Stanford. 200 pp. Hardcover $49.95; Paper $18.95.

UCL Working papers in linguistics. London: Dept. of Phonetics and Linguistics, University College London:

- Vol. 2. 1990. Includes seven papers on relevance theory, five papers on GB syntax, and six 'general' papers. 372 pp.
- Vol. 4. 1992. Includes seven papers on GB syntax, six papers on relevance theory, two papers on word grammar, and three 'others'. 428 pp.
- Vol. 5. 1993. Includes seven papers on syntax, five papers on pragmatics, four on phonology, and one 'general' paper. 457 pp.
- Vol. 6. 1994. Includes twelve papers on syntax, four papers on pragmatics, and three papers on phonology. 552 pp.

Vikner, Sten. Verb movement and expletive subjects in the Germanic languages. 1995. New York: Oxford University Press. x, 294 pp. Cloth $65.00; paperback $35.00.

Wechsler, Stephen. The semantic basis of argument structure. Center for the Study of Language and Information. 1995. Stanford, CA: CSLI Publications. 157 pp. Hardback $49.95, paperback $19.95.

1996 GENERAL CARLA CONFERENCE

A General CARLA Conference is being planned for shortly before the 1996 Computer Technical Conference (CTC) most likely to be held at JAARS (Waxhaw NC) in the fall. Precise dates will be announced when CTC dates are determined.

CARLA (Computer Assisted Related-Language Adaptation), also known as CADA (Computer Assisted Dialect Adaptation), is a process for computer-assisted parsing of text and adaptation of materials to related dialects or languages. Programs for this purpose are being used around the world by SIL members to prepare rough drafts of Scripture translations, improve members' understanding of morphology, produce interlinear text, and act as a spelling checker on publishable material.

This general CARLA Conference is planned to bring together those who have worked on development of the programs and those who train and consult users, as well as interested users of the program, international coordinators in relevant domains, and administrators in entities where the programs are being used. The conference will consist of presentations of papers or demonstrations by those attending, ensuing discussion, and resolutions. Papers or demonstrations are invited addressing the following issues:

A. CARLA and Computational Tools:
- Existing problems and proposed solutions
- Application of tools beyond adaptation, spell checking, and interlinear text
- Vision for the tools of the future

B. CARLA and Linguistics:
- Linguistic modeling (incl. linguistic modeling vs. orthography processing)
- Need for syntactic analysis, transfer, and/or synthesis

C. CARLA, People, and Language Programs:
- Strategies for successful team dynamics (including program planning and/or interpersonal relationships)
- Managing source and target data files

D. CARLA and Translation:
- Selecting good source texts
- Translation checking

E. CARLA and Training:
- CARLA tools in SIL training
- Transferring the technology: national involvement

Participants who receive SIL-funded assistance for travel will be expected to present a paper or demonstration. Some participants will be funded by virtue of being delegates to the CTC. Assistance with travel will be available from .3% Academic Conf. travel funds. Prospective participants are invited to submit one-page abstracts (and later papers) to: Andy Black (CARLA Guidance Team Chair), P. O. Box 8987, Tucson, AZ 85738-0987 USA; cc:Mail: andy black; Internet: andy.black@sil.org

Abstracts due by 15 Jan. 1996. Notification of acceptance will be sent by 15 Mar. Entire texts of papers to be presented are due 15 May. Papers will be reviewed by a program committee and comments sent to the author by 15 Aug. Revised copies of papers in 'camera ready' form are to be submitted by 15 Oct. 1996 enabling printing of the proceedings of the conference, including papers and any resolutions.

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