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Editor’s Note: The essays published here have been peer reviewed and selected from among the papers presented at the symposium for publication. While this procedure inevitably eliminates some promising but not yet developed papers that enriched the symposium, the officers of DLLS believe that the selection process helps ensure a higher quality of publication for its members and other interested scholars.

We gratefully acknowledge the services of the Editorial Review Committee, who performed the reviews. We also appreciate the editorial and production services provided by Professor Melvin J. Thorne and his students as the BYU Humanities Publication Center.
In spite of their recency, neither applied linguistics nor sociolinguistics has been much affected by developments in the philosophy of social research, especially by the critical realism that is now influential. This omission is partly because there was enough for researchers to do, just setting out aims and scope, and building a resource of studies, while these new language disciplines were establishing themselves. Also, resistance to developments in mainstream social research theory is common in all disciplines because adherents to any language game, like a discipline, tend to resist pressures to change their game if the impetus for change comes from outside their known conceptual framework. And, even though most of the research on language diversity and education has been done by people working in applied linguistics or in sociolinguistics, many in those disciplines have reservations about the limitations of their fields of inquiry for doing present-day studies. The reasons for this ambivalence are evident in the short histories of these disciplines.

In this paper I discuss some changes currently impacting language diversity and education research practices. I outline critical realism as a philosophy, and relate it to influential ideas on power and social justice. Then I list some methods this seems to license and mention some recent work that appears consistent with this conception of discovery.
with the latter. Both these disciplines examine the relationship between language and society, but sociolinguistics was more often seen as reapplying its findings to language questions and to linguistics, while the sociology of language was seen as reapplying its findings to cultural questions, to society, and to education; but these differences can easily be exaggerated. And because I resist labels applied to my own work, I am not much troubled by any uncertainty that exists here.

For me, the whole of the human sciences is a sprawling system of language games, overlapping and loosely connected in some places, but disconnected nowhere, so I agree with Quine's view: We need to stress this notion of a single, sprawling system and give less attention to disciplinary boundaries that are, as Quine says, "only useful for deans and librarians" (1966, 56). Even the term "sociology of language" is becoming a little dated now, because people "inside" this area are extending their interests not just to language, but to all the sign systems that make up discursive practices.

In my view, a thoroughgoing sociology of language would focus on things concerned with the dominant narratives through which the distribution of power, wealth, position, and privilege are accounted for and justified. As well as discourse studies, broadly conceived, this means things like language loyalty, language as a source and symbol of group solidarity and identity, and language as a tool of social stratification and discrimination. More specifically, my focus is on the social, political, and educational aspects of the relationship between discourse and society. And if sociolinguistics is also concerned with all these things—as it now seems to increasingly be—then I'm a sociolinguist too. Indeed, many applied linguists and sociolinguists are deeply involved in issues of human emancipation, yet these interests are still rather muted in the literature, and they have had relatively little abiding impact on the two disciplines more generally. This is especially true of applied linguistics, with its concentration on language teaching. As one authority observed, "the training and development of language teaching experts has been very insensitive to economic, social, and political implications of what happens" (Christopher Brumfit, in Phillipson 1992, 254). It seems that those applied linguists involved in the delivery of second language programs to culturally different peoples too rarely consult the interests, needs, and values of the program recipients in a critically real way; and this is a cause of cautious concern—at least, for some:

Where I think things have not been really effective has been in the mediation, the way in which these ideas have been integrated into local, social, political and educational conditions. . . . I don't think we have brought into the operation an awareness of local conditions nor an effective involvement of local people . . . so that one can see these [practices] as in some sense, even though enlightened and benevolent, well-meaning, but nevertheless to some degree impositional. (Henry Widdowson, in Phillipson 1992, 254)

Perhaps it is just this perception that "language teaching" is the central interest of applied linguistics that distorts its function and diminishes its real potential. Perhaps this same perception links applied linguistics too closely with the concerns of mainstream linguistics, and not enough with the concerns of the other human sciences.

A CONSTRAINING THEORY OF KNOWLEDGE

Robert Phillipson notes that it was linguistics, to the exclusion of the social science disciplines, that dominated theory-building in the first phase of
applied linguistics expansion, and that this was even at the expense of education itself. He sees two incompatible theories of knowledge that now underpin work in applied linguistics:

In one, applied linguistics takes over theories and methods from other areas of scientific study, which then have the status of feeder disciplines; in the other it is an autonomous scientific activity requiring the elaboration of its own theoretical base in relation to its intended applications. When all these ambiguities in the term exist, it is not surprising that there is uncertainty about what 'applied linguistics' stands for. (1992, 176)

Now these two theories of knowledge hardly exhaust the range of epistemologies available to applied linguists, and also to sociolinguists. These two different points of entry do suggest, however, a sharp ideological cleavage among adherents of the two disciplines.

Clearly, on logical grounds, the first of these theories of knowledge is much more relevant and appropriate to the study of language teaching, and to the study of language in society too, of course, because both disciplines draw on topics and issues treated very seriously in psychology, political science, sociology, anthropology, and especially in education itself. Yet for many applied linguists, and for many sociolinguists, too, it is the second epistemology that governs their work. For much of the time, work goes on independent of the other disciplinary influences. At best, most references to those influences involve the facile borrowing of technical signs, like "ideology" and "structure," without much borrowing of the theoretical baggage that gives those signs their precise rules of use. And this epistemological uncertainty creates tensions for many trained in the one approach to their work but very aware of the logic of the other.

In the first place, researchers can see the narrow scope of their actual activities when set alongside "the things that really exist" in the world: the social "things" whose existence is paramount for everyone in the social world—namely, the discursive products of human interaction. Obviously, applied linguists and sociolinguists go well beyond the ideal concerns of linguistics itself. They step resolutely into the ontological minefield that is the real world of human social interaction. Beyond theories of knowledge and theories of meaning, they reach into questions of "being" itself. And a theory of being concerning the social world (an ontology) asks "what things really exist in that world?" and "how basic are they?" By answering these questions, we become clearer about where a discipline intersects with the real world of social interaction. For critical realists, that point is where a human science discipline meets the reasons and accounts that people offer as their own interpretations of the world.

In line with other forms of "scientific realism," Roy Bhaskar's realism asserts that people's reasons and accounts are "real" in the sense that their existence and activity as objects of inquiry are absolutely or relatively independent of the inquiry of which they are the objects. Consequently, they are emergent phenomena that require realist explanations; once we have those explanations, they carry emancipatory implications. In other words, the most basic evidence available for understanding the social world is people's reasons and accounts that reveal what is in people's minds about that world: the things in their world that oppress them or the things that they value. These discourses help us interpret the social world and help us explain the many social things that position people. They are always our "prima facie" evidence. And these points are relevant to my theme in two main ways.
EMBRACING OTHER THEORIES AND DISCIPLINES

By consulting the reasons and accounts of relevant actors in other theories and disciplines, researchers learn about the values, beliefs, interests, ideologies, and structures that give rules of use to key signs within those language games, and which position their users in certain ways. As Foucault argues, by locating integrated frameworks we discover "a field of possible options"—a changing space of interweaving discourses from which certain possibilities for emancipatory action can emerge. We really need to search out these spaces between disciplines and theories and reduce our emphasis on the tightly constrained questions and themes that emerge from singular language games and which tend to obscure or ignore the spaces in between. In practice, this means much more than interdisciplinary collaboration. It means expanding the language games of what we do by inviting others with a very different worldview: people from other cultures and social positions who can help linguists examine biases, like their commitments to monodisciplinary dogmas and constraining conceptions of their work.

These dogmas also include over-rigid views about what counts as academic standards, especially the kind of standards that produce a flow of new entrants to the field who are almost always "people like us." The result of all this would be programs of work better adapted to the postmodern condition, as it plays itself out in increasingly diverse global settings. I believe the future for research in language diversity generally lies in interdisciplinary approaches to "discourse studies," broadly conceived, politically aware, and socially situated; and much less in 1970s conceptions of discovery largely tied to natural language studied in "defined" contexts.

CONSULTING THE PARTICIPANTS IN COMMUNITIES OF PRACTICE

A second priority in this critically real process of research is to seek out the views and interests of those whose social arrangements provide the focus of a given study. This means consulting the range of participants in that community of practice about the aims and scope of the research. Deciding the membership of that community and who their representatives are is a research activity in itself. Once decided, researchers need to know what those people are thinking and take that into account as evidence in reaching conclusions or deciding policy and future practice. But this does not mean going along uncritically with their wishes or preferences. Rather, it means knowing the things they value, the things that oppress them, and having their interests in mind, even if they seem not to know their own best interests. In other words, if justified by the study's findings, it might be necessary to change what many participants think, but you cannot do this without knowing what they think.

This very process of change becomes part of the policy action that follows the research itself. For example, a study of minority language speakers might discover that the people want only English in their elementary schools. If the evidence says this is contrary to their best interests, it might be necessary to change that preference, perhaps through some form of community education. To make all this work, a researcher needs to be "a local" to some extent. At least, he or she should have the approval, the mentoring, the trust, and the advice of those who represent the local people.

In my work with indigenous peoples, I use ideas borrowed from Graeme Hingangaroa Smith (Corson 2000). He gives four models for doing culturally appropriate research. Each responds to the interests of participants in a community of practice:
1. The Mentor Model: Authoritative people from the community of practice itself guide and mediate the research.
2. The Adoption Model: Researchers are “adopted” by the cultural community and entrusted to do the research with care and responsibility.
3. The Power-Sharing Model: Researchers seek the help of the community and work together towards the research aims.
4. The Empowering Outcomes Model. The research has emancipatory outcomes for the cultural community as its first objective.

These ideas seem relevant to any kind of field research, not just indigenous people. Researchers approaching any cultural group, like the staff of a school, benefit from adopting one of these models.

For a decade, I’ve been putting these ideas to my students. For example, Benedicta Egbo (1999) followed model 3 in her work with literate and nonliterate rural women in Nigeria; Stephen May (1993) followed model 1 in his study of a multilingual/multicultural school in New Zealand; and Wambui Gathenya (2000) is also following model 1 in her study of street children in Kenya. But model 4 seems the most complete approach. It asks researchers to build the community’s own aims into their work and make those aims their own. Again, when doing all this, a research study in progress needs to consult the reasons and accounts of the participants in order to interpret and understand the different language games that position those people. In language diversity and education research, this means that issues of power are always involved.

**Realist Ethnographies of Educational Communication**

Again, Foucault’s views on the links between power and discourse seem relevant: Rather than a privilege that an individual possesses, power is a network of relations constantly in tension and ever-present in discursive activity. Power is exercised through the production, accumulation, and functioning of various discourses. Discourse here is the fickle, uncontrollable “object” of human conflict, although no one is outside it completely or sufficiently independent of discourses to manage them effectively. The conflicts that take place over and around discourse, however, can be one-sided if the balance of power consistently favors some groups over others. For Foucault, the development of particular forms of language meets the needs of the powerful but, as often as not, it meets those needs without any direct exercise of influence by the powerful. He also speaks of the “disciplining of discourse”: the way people, teachers for example, who are positioned by complex discourses they themselves have had little hand in shaping, decide who has the right to talk and be listened to in discursive sites and what codes are valued.

Pierre Bourdieu’s ideas also seem very close to critical realism. He tries to produce a genuine sociological framework for his linguistic discussions. Despite its lack of formal linguistic rigor, his marketplace analogy allows him to steer a difficult middle course. For him, individual and group language codes are not isolated from the social and the historical conditions in which they are embedded or from the embodied dispositions that individuals and groups possess. All of these relations go well beyond “what can be said” just in natural language.

Bourdieu’s central point is really an anthropological one: All groups possess esteemed cultural capital, but it is not always the same capital that is valued in education or in other formal sites. By moving from one cultural “field” or setting to another, the relationship between power and significance changes and different types of cultural capital become
more or less valued. A very important point: Schools are one of these cultural fields. Despite their emancipatory purposes, the function of schools is to value certain privileged language games and discourse practices while excluding others.

As Bourdieu acknowledges, different ethnic, gender, and class interests require different and perhaps incompatible types of treatment in research as in policy. For me, as mentioned, an early step in a critically real approach is to discover those interests by consulting those who have them. A later step is to show these interests to be "real" and explain their operation. The final step is to act on those findings through changes to policy or practice that follow from that newly explained evidence. All this means a richer engagement with the reasons and accounts of participants. It means identifying the expected outcomes and latent goals of participants, which is much more than mere interpretation. It asks us to interrogate structural forms of oppression that position people within wider social formations so that real explanation becomes possible.

In response to this shift in the philosophy of social research, language diversity and education research has turned slowly in that direction, too, as surveys suggest (Saville-Troike 1989). The shift is also apparent in the research methods that are now influential (Hornberger and Corson 1997), and consistent with the debate on social research and language ideology more generally (see Silverstein and Urban 1996). Linguistic anthropology is prominent in all this (Duranti 1997). In fact, much of the insightful "sociolinguistics" is now being done by linguistic anthropologists, and this is no accident. The different methodological tools used in participant observation are central here. This includes those methods that had their origins when positivism still held sway and which often need rehabilitation when put to work for more interpretative purposes. For example, positivist methods like structured interviews, observations, or questionnaires, all have weaknesses when used in interpretative research, but each can be improved, in part, by teaming it with other methods.

Many current research methods, however, have emerged from the same post-positivist critique that produced Bhaskar's theorizing—things like critical discourse analysis, historical critique (genealogies), conversational analysis, ideology critique, critical ethnography, and the critical triangulation of different sets of methods. In some limited way, each of these tries to uncover the reality of the accounts and reasons that suggest the influence of social structures in research theories. When used as multiple approaches in the study of the same phenomenon, they can provide compelling evidence that helps uncover and explain that reality, so they offer some of the deepest possible means for doing emancipatory social research—a form of "depth hermeneutics" that both interprets and explains human phenomena.

Good ethnography of educational communication seems to have the following basic criteria:

1. It involves prolonged and repetitive observation within the actual context.
2. It disturbs the process of interaction as little as possible.
3. Many of its instruments are developed in the field.
4. Many of the important questions emerge as the study proceeds.
5. It consults the reasons and accounts of people in the community under study and addresses their interests.
6. It interprets the full range of sign systems used by humans.
7. It pays close attention to issues of power and discrimination.
8. It tries to identify values, norms, and structures impacting the situation.
9. It tries to understand the sociocultural knowledge participants bring to the context and generate within it,
and the sign systems they use in those processes.

Let me end by briefly presenting some studies from people who are doing much of this already. Each of these four studies contributes to the literature in an area of language diversity and education. The book, *Language Diversity and Education* (Corson 2000), reviews this literature. It is an introductory text for graduate students in the language disciplines and for those in education too.

**NON-STANDARD VARIETIES: A SOCIOLINGUISTIC ETHNOGRAPHY**

Britain’s Prince Charles complains that American English is having a “very corrupting” influence on “proper English,” which, through the darndest coincidence, happens to be the brand of English he speaks. (McFeatters 1995, A11)

From contacts with the ebonics debate, you will be quite familiar with the prejudices Prince Charles is expressing here. This topic is one of the most intractable social justice issues in education. Monica Heller throws important light on it in her book, which could be used to illustrate any of the four areas I discuss here. However, I am using her work just to illustrate this topic of “language valuation.”

She presents the story of one francophone Toronto school in the early 1990s. Her team of researchers tried to uncover the social interests at play in that school, interests that for some students are prejudiced by the different levels of valuation allotted to different language varieties. The half-million Franco-Ontarians are beset by problems of language quality. They are positioned by daily contacts with English—the dominant world language and the language of power in the province—but also by disagreements about the social significance of different varieties of French.

Heller’s team studied classrooms and school events, both formal and informal, over a four-year period. They also interviewed administrators, school board officials, trustees, teachers, and students from many ethnonlinguistic backgrounds. They also did policy analysis and used videotaped recordings of student council meetings and social functions. The short extract of classroom talk below only illustrates one of their findings. I should mention that a major thing that makes vernacular Franco-Ontarian varieties different from metropolitan French and even from Quebec French, is their wide use of anglicisms. Anglicisms, unfortunately, can cause speakers of standard French to experience high levels of linguistic apoplexy. Here a teacher is working with a grade 10 advanced French class:

Martine: pourquoi lit-on? [why do we read?]

Student: pour relaxer [to relax]

Martine: pour se détendre, ‘relaxer’ c’est anglais [to ‘se détendre’ (relax), ‘relaxer’ is English]

Without dwelling too much on this, the extract illustrates an anachronism in the school’s policies and practices, for this is a highly progressive school. It has well functioning antiracist policies, and nonsexist practices. Yet in its classrooms, its teachers discriminate against the language variety of the very population whose children make up the majority of its students.

There is more to say to support this claim of course, but I am just trying to give you the idea. Heller’s team give clear answers to questions about the source of dominant discourses, their circulation, and their effects. They provide a close reading of the range of sites where this school’s public discourse is constructed and where students are positioned in different ways by the school’s constraining definitions of language quality.
A BILINGUAL EDUCATION RESEARCH STUDY

I heard crying in the infants' school as though a child had fallen and the voice came nearer and fell flat upon the air as a small girl came through the door and walked a couple of steps towards us . . . . About her neck a piece of new cord, and from the cord, a board that hung to her shins and cut her as she walked . . . . And the board dragged her down, for she was small, and the cord rasped the flesh on her neck, and there were marks upon her shins where the edge of the board had cut . . . . Chalked on the board, in the fist of Mr. Elijah Jonas-Sessions, "I must not speak Welsh in school." (Llewellyn 1968, p. 267)

The revival of Welsh is now a success story in Europe. But in North America we are less successful with minority languages. Despite the US Bilingual Education Act's apparent aims, in practice the response of most schools has been to treat language minority students in a deficit way with respect to English. Because these students are perceived as lacking English, the typical policy response is to give them extra teaching in English with a rapid transition to a use of English across the curriculum. There are exceptions, and Oyster Bilingual School in Washington, D.C. is one of them.

Using discourse analyses, Rebecca Freeman (1996) shows how the interactions between educators and students there combine to resist the oppressive discourses that trouble minority language users in the U.S. At Oyster school, linguistic and cultural diversity are valued as a resource to be developed by all students, and not as a problem for minority students to overcome. This "language-as-resource" orientation resists the "language-as-problem" orientation that is more dominant in North America. Freeman, however, tried to identify the real principles underlying this language policy and how they compared with its actual implementation. To do so, she engaged all levels of authority in the school and the power relations among those levels. Over two years, she interpreted the political interests of policy makers and also the goals of the policy for the students. Then, by triangulating these studies with policy analysis, and with observations of actual practices in classrooms, she untangled some of the ways in which the sociopolitical concerns of the school's leaders distorted the implementation of its language policy. After comparing the ideal policy with actual practices, she concluded that the interaction between the school's discourses and societal discourses led to discrepancies between policy and actual practice. In other words, despite the school's good intentions, the wider discourses often got in the way.

A STUDY OF CULTURAL DISCOURSE Norms

She was always stoppin' me, sayin' "that's not important enough"; and I hadn't hardly started talking! (quoted in Michaels 1981, 439)

Teachers can so easily overlook differences in student discourse norms. Because of this, they often see culturally different children as unresponsive or disruptive, or they wrongly label children as slow learners because they have different norms for answering and asking questions or for putting their stories into words, like the African American girl quoted above.

Alice Eriks-Brophy and Martha Crago (1994) looked at six infant classrooms in Northern Quebec. All the students were Inuit, as were their teachers. The study looked at initiation-response evaluations and turn allocations. With the help of Inuit consultants, they explored differences between the Inuit and mainstream interactions found elsewhere, so their
study contrasts with other studies, like the ones with Polynesian children in Hawai‘i, which looked at interactions that seemed problematic and needed “fixing.” But these Inuit studies looked at interactions that were working well for all concerned. The researchers shared their findings with European teachers of Inuit, for whom miscommunication is common. As an example, the Inuit teachers usually promoted longer talk sequences with much more child participation. They rarely evaluated student responses, unless some serious error was made; and even here, they used indirect or subtle forms of evaluation as shown below:

(Teacher shows a picture card)
Students: Ammaukaluk [a type of insect]
Teacher: Ammaukaluk. Where does it live?
Students: Inside the stomach.
Others: In the intestines.
Teacher: In the intestines.
(Teacher shows the next card)
Students: Qaurulliq [a black beetle with a white forehead]
Teacher: Qaurulliq. Why is it called qaurulliq?
Student 1: Because it has a forehead.
Student 2: His forehead is white.
Teacher: His forehead has white on it. It’s qaurulliq.

Here the student responses were signalled as “correct” by simply moving the talk along, or by repeating the correct answer. There is none of the fulsome praise or censure that Inuit children find threatening in regular classrooms.

This research seems critically real to me because it consults representatives of the community to examine the ways aboriginal teachers transform classroom interactions, so as to incorporate their own culture’s values and discourse norms into those spaces.

A STUDY OF GENDERED DISCOURSE NORMS

The skit is based loosely on a format known from television contests. The student council president, Marcel, acts as master of ceremonies. He announces that the school will now pick the school “stud.” Four boys from the senior grades are called up to sit in a row on the stage. Marcel passes from one boy to the next, asking each one a question. . . . To the third, Ali, he poses the following question: “What is the role of women in society?” Ali is visibly uneasy, and fails to answer. Luc says that he will answer the question, and eventually Marcel gives him the microphone. Luc answers: “To serve and please men.” The audience responds loudly, with many boys cheering and some girls booing. (Heller 1999, 193)

Senior schools are places where archaic male values get reproduced by successive intakes of students. Meanwhile, girls and boys looking for fair treatment in these institutions often differ markedly in their discourse norms, and these differences are known to impact educational success.

Bourdieu’s idea of “symbolic capital” is the starting point for Penny Eckert’s study of “cooperative competition” in adolescent “girl talk.” This special form of cultural capital is important for girls. Their school influence often depends on the painstaking accumulation of this form of moral authority. A community of students scatters symbolic capital on its members by awarding different levels of popularity to different people. And being popular is an essential part of moral authority in high schools. It is highly valued by girls because they have fewer avenues of influence open to them.

“Girl talk” is a typically female speech event that involves long and detailed discussions about other people, norms, and beliefs. In girl talk, they
acquire their own gendered norms and measure their symbolic capital against those norms. In this case, the girls' efforts to win popularity leaves them with a dilemma: Popularity needs not just likability, but also a visibility that draws the community's attention to that likability. Just becoming visible, however, means engaging in discreet acts of competition. It also means mixing with prestigious people. And either of these activities can easily compromise a girl's likability and so her popularity.

Using a form of participatory discourse analysis, Eckert examines a two-hour stretch of group talk where the young women build a community for themselves. They define their own norms through careful processes of negotiation that always seem to end in consensus, even though the processes are quite competitive in their aims.

When taken together, Eckert's rich collection of episodes—and her wider ethnography in the same school—reveals the importance of shared norms for a community engaging in girl talk. She shows how the negotiation of those norms reaffirms the group's sense of solidarity and female power itself.

CONCLUSION

In these four studies, the researchers interpret the reasons and accounts of people positioned by different language games, all played out within schools. To explain the structural influences at work, they integrate other theories and other disciplinary language games. Their findings offer critical insights into the world of language diversity and education. In contrast, many of the approaches to language study that evolved in the Western academic world over the last century seem rather divorced from the reasons and accounts of peoples living outside that narrow world and even from many living within it. Seeing natural language as the exclusive social semiotic that shapes discourse and positions people as individuals and groups leaves us with a rather impoverished conception of context.

The contextual signs that constrain and liberate human action depend on rules of use that reach well beyond natural language. All these different sign systems are bound up with questions of cultural dominance, and the language games they structure are affected by historic power differentials maintained largely in the nonlinguistic discourses of wider social formations. It is these that provide the real social context and the real subject matter for language diversity studies in education. I believe we are still much too preoccupied with studying only the surface features of discourse.

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LEXICOSTATISTICS: AN INTRODUCTION

In the past few decades, the possibility of applying mathematical and statistical techniques to language study has captivated the imagination of many linguists, especially those interested in transforming their field into a more “exact” science (Embleton 1986). In the 1950s and 1960s, quantitative linguistic theory had a remarkable incarnation in the work of Morris Swadesh (Crowley 1997). Faced with the tricky and often controversial task of grouping languages into families, Swadesh hypothesized that statistical data could be used to posit accurate subgroups among related languages. Swadesh counted the cognate lexical forms shared by specific languages to determine to what extent the languages were related. He called his subgrouping technique “lexicostatistics.”

Swadesh’s technique is based on several critical assumptions. At the most basic level, the approach presupposes that languages change over time in systematic ways and that similarities among languages are the results of common “genetic” relationships among languages. This genetic analogy makes it possible to speak of parent, daughter, and sister languages (e.g., Romani and Hindustani share a common parent language, Sanskrit, and are thus considered “sister languages”). By applying lexicostatistical techniques, linguists attempt to quantify the rate and extent of lexical change in languages over time and then determine the genetic relatedness of the idioms. In short, lexicostatistics build on the rudimentary family tree model of language typology. While the hierarchical, genetic structure of the family tree model is maintained, lexicostatistical methods allow the linguist to organize language subgroups around percentage values of relatedness (e.g., languages with a determined relatedness of 81–100% are “dialects of a language,” languages with a determined relatedness of 36–81% are “languages of a family,” and so forth—for a full listing, see table 1). The higher the value, the more closely the languages are related. The method for determining this value of relatedness will be discussed shortly.

Lexicostatistics hinge on the theoretical proposition that languages change in regular ways and that the rate of lexical change remains constant over time. Swadesh’s model of lexical change is thus analogous to the scientific model of radioactive decay (Embleton 1986). Just as the presence of a radioactive isotope diminishes at a fixed rate over time, so does the content of a language’s “original” lexicon. In reality, words do not disappear when, statistically speaking, their time runs out. Instead, new lexical forms constantly compete with old forms, rendering them obsolete and eliminating them from a speech community’s lexical repertoire. Though lexical change may seem like an uncontrollable process dependent on a wide range of variables, Swadesh nevertheless hypothesized that vocabulary turnover
occurs at a diachronically fixed rate. The third assumption of lexicostatistics has to do with the actual lexical forms under analysis—the data used to determine relatedness among languages. Swadesh supports the distinction made between "core" and "peripheral" vocabularies, and incorporates this distinction into his theory. According to Crowley (1997), core vocabulary consists of forms like "tooth" and "tongue" that are common to the human experience and therefore show up almost universally in the world's languages. Peripheral vocabulary forms, like "antelope" and "cilantro," cannot be found in every language. The presence of peripheral forms like these is directly tied to the unique characteristics of a linguistic community's physical environment and material culture.

Swadesh believes that core vocabulary words most accurately represent the original lexical stock of a language because of their universality among languages and because of the decreased possibility that borrowed lexical items will replace them. For example, it is likely that the native Romani words associated with metalworking were replaced by Romanian terms when the Roma reached the Balkans, while it is much less likely that the Romani word for "and" would be replaced by a nonnative term. Likewise, it is not profitable to factor the peripheral term for "automobile" into a lexicostatistical comparison of Romani and Hindustani, as both languages have probably copied the term from English, albeit with various phonological adaptations. By contrast, a comparison of the core word for "rope" in both languages may reveal a shared genetic relationship.

With these theoretical considerations in mind, our focus can now turn to the techniques involved in lexicostatistical analysis. If one is going to compare core vocabulary items from two or more languages and thereby determine the relatedness of these languages, it is necessary to decide first which words may be reliably classified as "core" and which ones must be discarded as "peripheral." Swadesh's catalog of roughly two hundred lexical items is generally accepted as the standard list of core vocabulary (Crowley 1997). This so-called "Swadesh list" is expansive enough that some words may be deleted if they are determined functionally peripheral in a specific context (e.g., "snow" and "frost" may be excluded when working with languages native to equatorial regions).

Once the linguistic equivalent for each word is posited, the analyst must then decide which words are cognates and which words are not. I will discuss the problematic nature of this process later on in my own case study of Romani, Czech, and Hindustani. After counting the cognates, determining the lexicostatistical relationship of the languages is only a matter of arithmetic. Dividing the total number of cognate pairs (e.g., Hindustani [tang] and Romani aang, "foot") by the total number of words in the Swadesh list will produce a percentage ("shared cognate percentage" or SCP) of linguistic relatedness. The SCP may then be correlated with the levels of

<table>
<thead>
<tr>
<th>Level of subgrouping</th>
<th>SCP in core vocabulary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dialects of a language</td>
<td>81–100%</td>
</tr>
<tr>
<td>Languages of a family</td>
<td>36–81%</td>
</tr>
<tr>
<td>Families of a stock</td>
<td>12–36%</td>
</tr>
<tr>
<td>Stocks of a microphyllum</td>
<td>4–12%</td>
</tr>
<tr>
<td>Microphyla of a mesophylum</td>
<td>1–4%</td>
</tr>
<tr>
<td>Mesophyla of a macrophyllum</td>
<td>0–1%</td>
</tr>
</tbody>
</table>
linguistic subgrouping found in the following taxonomy (Swadesh cited in Crowley 1997, 173):

Once the SCP is calculated, a mathematical formula based on the equation “rate of change x time = total change” allowed Swadesh to posit the historical time-depth at which two related languages became linguistically distinct (or “branched apart,” according to the family tree model). This technique is referred to as glottochronology. Swadesh’s basic glottochronological formula states: where $t$ represents the number of thousands of years that two languages have been linguistically distinct, $C$ stands for the SCP, and $r$ is the constant rate of lexical change (cited in Crowley 1997, 181). The logarithmic base for the equation is 0.368.

Before the formula could be of any practical use, Swadesh had to determine the constant rate of lexical change in language—the variable $r$. Swadesh studied the vocabulary change in the written records of 13 languages with a literary tradition of at least one millennium. He discovered that after 1,000 years a language loses roughly one-fifth of its core vocabulary (Crowley 1997).

Though Swadesh’s model won many adherents in the 1950s and 1960s, it has suffered a considerable barrage of criticism in more recent years (Embleton 1986). In his review of Swadesh’s work, Crowley (1997) disagrees with several of the underlying assumptions and methods of lexicostatistics. First, he objects to the idea that lexical change occurs at a fixed rate in all languages. Second, he criticizes the lack of academic rigor that often marks the determination of what is a cognate and what is not. Crowley claims that he himself has performed lexicostatistical cognate counts on word lists previously analyzed by other linguists. In some cases, Crowley’s SCP findings were 10–20% different from the findings of previous researchers (1997, p. 183). Finally, Crowley challenges the basic notion of how to define core vocabulary. Still, he does not disregard Swadesh’s model entirely. In fact, Crowley devotes fifteen pages of his textbook on historical-comparative linguistics to a description of lexicostatistics and glottochronology, including numerous exercises that call for the manipulation of lexicostatistical data. Hence, it can be assumed that while lexicostatistics and glottochronology are by no means perfect instruments, they still constitute viable quantitative techniques for analyzing the genetic relationships among languages.

**STATEMENT OF PURPOSE AND HYPOTHESES**

In conducting the present lexicostatistical comparison of Romani with Hindustani and Czech, my purposes are twofold. First, I hope to vindicate Swadesh’s theory of lexicostatistics, at least in part, by demonstrating that the application of his techniques can verify conventional linguistic knowledge about the subgrouping of languages. Hindustani, an Indic language spoken in the northern regions of India, has traditionally been classified as a sister language of Romani. Both are considered daughter languages of Sanskrit. Czech, on the other hand, may be considered Romani’s linguistic cousin; the two languages share the reconstructed Proto-Indo-European language as a common ancestor. In the present study, Czech will be compared to Romani, and Romani will be compared to Hindustani; for the sake of focus and space, Czech will not be compared to Hindustani. My second purpose in conducting this study has to do with the debate over the real origins of Romani. I am interested in compiling Romani linguistic data to combat the unfortunate and anachronistic hypothesis that Romani is not an Indic language at all, but rather a “secret code” developed among European Gypsies and wandering criminals (Davidová 1995).
The following hypotheses, based on Swadesh's taxonomy (table 1 above) will be tested against the lexicostatistical data:

H₁. As languages of a common "stock" (they are Slavic and Indic descendants of Proto-Indo-European), Czech and Romani should have an SCP of between 12% and 36%.

H₂. As languages of a common "family" (they are both the daughter languages of Sanskrit), Romani and Hindustani should have an SCP of between 36% and 81%.

METHODS

To organize the relevant lexicostatistical data, I used Microsoft Excel to create a six-column table (see the sample in table 2). The first column of the table contains 216 English words duplicated from the original Swadesh list (Crowley 1997, 174). The next column contains the lexical equivalents of these words in Czech. The following comparison column, marked Cog C/R, contains a number that indicates the relationship of the Czech word to its Romani equivalent (the Romani gloss is found in the subsequent column). In this comparison column, 0 = no cognate relationship; 1 = cognate contains a 0 (= no cognate relationship). The Romani term, however, is cognate with Hindustani [bʰaːn], so a 1 (= cognate relationship) is placed in the Cog R/H column.

Due to the character limitations of Microsoft Excel, the following modifications have been made to Czech, Romani, and Hindustani (romanized) orthography for use in the table. In Czech and Romani words, a (') appears after the letter over which it would normally appear in the form of a haaek (Cz. hvizda = hve^zda). For the Hindustani words, a colon (:) is used to indicate length.

After the number of 1s (cognates), 2s (loans), and 3s (insufficient information) in one column were counted, the total number of cognates was divided by 216 (minus the number of loans and words for which sufficient information could not be located). The equation for finding the shared cognate percentage (SCP) may be stated simply as where C represents the SCP, Cog equals the total number of cognates, L is the total number of loans, and G stands for the total number of words for which no gloss was available. Crowley (1997) explains that it is necessary to reduce the denominator (i.e., the total number of words in the Swadesh list) by a factor of 1 whenever a loan word is encountered. If loan words are erroneously counted as cognate forms, they will strengthen the posited cognate relationship of the languages and thus skew the final results of the analysis. In the present study, the equation was applied to compare Czech with Romani and Romani with Hindustani. By plugging the numbers into the glottochronological formula mentioned earlier, the time-depths of linguistic divergence among these languages were also ascertained.

The lexical data in this study comes from Poldauf's Anglicko-C^eský C^esko-
Anglický slovník (1981), Hůbschmannová et al.'s Romsko-Ceský Cesko-Romsky kapesní slovník (1991), and Forbes' English-Hindustani, Hindustani-English Dictionary (1866). In the Discussion section, the information about Hindustani and Romani lexical items will be supplemented with glosses from dictionaries of Hindi (another sister language) and Sanskrit (Raker 1995; Benfey 1886). It should also be noted that the Romsko-Cesky Cesko-Romsky Kapesní slovník represents the lexicon of Czechoslovak Romani, an individual dialect among many European variants of Romani. According to Davidová, the various dialects of Romani tend to diverge most in terms of their peripheral vocabulary (1995). Hence, for the purposes of this general inquiry into Romani core vocabulary, Czechoslovak Romani is considered to be representative of Romani as a whole.

RESULTS

After the lexical data into the Microsoft Excel spreadsheet was entered, the cognate/non-cognate forms were evaluated, and the numeric data was tabulated, the results proved the validity of Hypotheses 1 and 2. For Romani and Czech, the lexicostatistical data produced an SCP of 23.077%, well within the 12-36% range that Swadesh posited to designate "families of a stock." The results were also encouraging with respect to Romani and Hindustani, which demonstrated an SCP of 53.774%. According to Swadesh, this numerical value designates Romani and Hindustani as "languages of a family." The glottochronological calculations indicated that Romani and Hindustani separated some 1,430 years ago. According to the study, the paths of Czech and Romani (i.e., Slavic and Indic) diverged some 3,380 years ago. Glottochronological results are traditionally rounded to the nearest thousand, thus we have 1,000 years and 3,000 years, respectively, for the Romani-Hindustani and Indic-Slavic splits.

DISCUSSION

Lexicostatistical analysis is not a flawless instrument for determining relationships among languages, but that does not mean that the flaws cannot be ameliorated with conscientious research. Crowley’s criticisms of lexicostatistics become poignant when one actually starts assembling lexical data and trying to determine cognate relationships among words. The analyst is soon confronted with the responsibility of declaring relationships among words, which are not always easily identified as cognates. For example, Hindustani [sina:] and Romani sivel (to sew) have only two segments in common: [s] and [i]. Is it likely that [na:] and [vel] descended from some common protoform? How likely is a sound change that produces the phonetically dissimilar [n] in one language and [v] in another? Without some knowledge of Hindustani and Romani morphology, the analyst may be tempted to mark [sina:] and sivel as noncognates. However, if the analyst knows that [na:] is the Hindustani infinitive marker, and [vel] is its Romani counterpart (which is indeed the case), then the root of both words can be recognized as si-, and the cognate relationship between the two is hard to deny.

At this point, however, another problem arises: since the two forms are so similar, is it safe to conjecture that Romani adapted the root si- to its own verbal paradigm after borrowing it from Hindustani? Intuitively, this seems improbable, since loan words often fill in lexical or conceptual gaps in language. Was "sewing technology" imported to Romani culture because the Roma themselves had not developed it? Again, one intuitively reasons that, since sewing is prevalent among all the cultures of the
world, the Roma probably did not borrow the technology from their Hindustani neighbors, and that means they probably had their own lexeme for what to do with a needle and a thread. Despite its intuitive appeal, however, this line of reasoning is not altogether sound, as will be demonstrated shortly. To determine empirically whether or not si- is a lexical borrowing, it would be helpful to find the gloss for “to sew” in Sanskrit, the parent language of both Romani and Hindustani. The instantiation of Sanskrit si for sew proves the case.

Lexical borrowing is very important to the final results of lexicostatistical research. If not recognized for what they are, borrowings will indicate a false relationship between the languages under question and will ultimately skew the results of any lexicostatistical study. For example, Romani dychinel is probably a borrowing from Czech dýchat. This may come as a surprise, since both words mean “to breathe.” Does this suggest that the Roma imported breathing from their Slavic neighbors? Obviously, the “lexical gap” argument that worked in the case of “to sew” does not work in the case of “to breathe.” So how do we know that this is an example of borrowing and not an indication of the close linguistic relationship between Czech and Romani? First of all, one may observe that the match is “too good to be true” because of the [x] instantiated in both words. The voiceless velar fricative [x] (represented as ch orthographically) is a phoneme native to Slavic but not to Indic languages. It is unlikely that [x] would develop in Romani when it does not appear in Hindustani, Hindi, or Sanskrit—unless the forces of language contact intervened. Forced by social expediency to become bilingual in a Slavic language as well as Romani, the Roma of Eastern Europe learned how to articulate [x] in Slavic words. As an areal feature, [x] gradually became a native phoneme of Romani and Roma children acquired it naturally. However, to prove definitively that dichinel is in fact a loan word and not the product of a natural sound change, it is necessary to examine the variations of the root [di] in Sanskrit and Hindi. After observing that none of these words relate to breathing, it is safe to posit that dichinel is indeed a borrowing.

As this brief discussion has demonstrated, determining the cognate relationship between two words is not as simple as it sounds. The process quickly becomes complicated, requiring the analyst to consider multiple variables such as phonology, sound change, the probability that a lexeme would be copied from one language to the other, and the presence of similar words in parent or sister languages. Admittedly, this is an inherently messy task. The variables cannot be controlled with precision. It is safe to argue, however, that since Romani is by no means a pidgin or creole language, the number of its linguistic borrowings (especially in core vocabulary) will be limited. In fact, the results of this study indicate that the core vocabulary percentage of loans from Czech to Romani is only 8.333%. Due to the contrasting phonological systems of Slavic and Indic languages, it is much easier to identify Czech loans to Romani than it is to identify Hindustani loans to Romani.

Crowley (1997) identifies another valid criticism of lexicostatistics by alluding to the following scenario: Suppose one linguist calculates an SCP 35% for languages A and B while another linguist posits SCP 36% for the same pair of languages. In terms of Swadesh’s taxonomy of subgrouping (table 1), the first linguist must declare that A and B represent families of a stock, while the second must argue that A and B are really languages of a family. Can lexicostatistics be considered a valid technique if a 1% discrepancy generates totally different subgroupings in the two nearly identical studies? What if that 1% difference was the result of a lexical borrowing incorrectly classified as
a cognate? In light of this possibility, Swadesh's rigid, percentage-based taxonomy of subgrouping may need to be revised. One possibility for revision may include adding a margin of error (±5%) to the percentages Swadesh has laid out to group language relationships. After all, it should be remembered that even languages within the same level of subgrouping (e.g., families of a language) share different SCPs because they have different histories of language contact and language change. It may be profitable to visualize Swadesh's taxonomy as a spectrum composed of gradations in language relatedness, and not as a hierarchy arranged around discrete values. Whatever the case, in the present study, each pair of words marked as cognates increases the overall SCP by only 0.463%.

In addition to providing enlightening insights into the theory and method of lexicostatistics, the present study revealed some interesting facts about the relationship between Romani, Czech, and Hindustani. The remainder of this section will concentrate on these linguistic findings.

Perhaps the most interesting lexical relationship in the study is represented by the Os (= no cognate relationship) in the column between Romani and Hindustani words. The os in this column indicate Romani words that are neither related to Hindustani nor borrowed from Czech. They account for 37.983% of Romani's core vocabulary. Such a large percentage raises the question: Where did these words come from? The origins of these lexemes (the “0-category” words) exemplify the important role phonological change and semantic shift have played in the lexical development of Romani.

For example, several Romani words begin with the phoneme [ts] (represented orthographically as c). Like [x], [ts] is a common segment in Slavic, but it is not native to the Indic languages. Nevertheless, the three Romani words in the Swadesh list that start with [ts] are clearly not Slavic borrowings: Romani cirdel vs. Czech tâhnout (to pull), Romani cindo vs. Czech mokrý(wet), and Romani cipa vs. Czech kura (bark). The origin of these words becomes even more obscure upon consideration of the seemingly unrelated Hindustani glosses: [kʰiːn̪aː], [cʌːn̪aː], and [bʰiːg̪a]. Discovering the origin of the Romani words with initial [ts] depends on a wider linguistic inquiry into Hindi. Th Romani [ts]-initial words correspond to a set of Hindi words that begin in [təɾ]: [təɾnɐː] (to pull) and [təɾ] (wet). By applying the comparative method (i.e., by collecting and comparing data from several other Indic languages like Bengali and Punjabi), it may be possible to posit whether or not Romani word-initial [ts] developed from a protoform like *[təɾ]. The evidence so far suggests that there is a systematic connection between some ancient phoneme and the modern Romani [ts]. (Incidentally, the only Hindi lexeme for “bark” that seems phonetically similar to Romani cipa is [d̪uːp̪] “incense.”)

Several of the 0-category words demonstrate the influential role of semantic shift in the lexical development of Romani. For example, Romani drom (“road” or “journey”) has an interesting history. Drom descends from Sanskrit [dɾm] “to run” and is probably unrelated to Hindustani [rəɾ]. In Hindi, the few lexical forms with word-initial [dɾ] have to do with speed, the act of running, or the act of melting. Sanskrit [dɾavaːy] means “to put to flight” and [anudrəɾu] means “pursued.” Apart from its very general sense of “path,” “road,” or “journey,” drom is used by the Roma to refer specifically to their centuries-long travels across Asia, Europe, and the Americas. Since the Roma have often been “put to flight” and “pursued” by angry townsfolk throughout their long sojourn, it is interesting to note the meanings of Indic [dɾ]-initial words.

Sanskrit [dɾm] “to run” corresponds with Greek dromos [dɾmos], “a race” or “a run.” The meaning of dromos was
polysemous: it could signify both the race and the place where the race was run. In the New Testament, *dromos* is used in 2 Timothy 4:7 (“I have fought a good fight, I have finished my course, I have kept the faith”) where it metaphorically means “the course of life” (Zodhiates 1993). The Roma, who may have kept Indic [dram] as the cover-term for “running” until they arrived in the Peloponnesus, probably broadened the meaning of the word to signify the concrete nouns “course,” “race,” and “road” due to the influence of Greek dromos. Romanian *drum* (path) may also have facilitated the category change from the verb [dram] to the noun [drom]. The Greek pronunciation of [dromos] probably caused the Romani vowel shift from [a] in [dram] to [o] in modern [drom]. When Romani [dram] changed to [drom], a lexical gap appeared in the semantic domain of “to run.” To fill the lacuna, the Roma started using the verb *prastal*, perhaps a distant relative of Hindi [prast'\a:n] (march).

Another interesting phenomenon that involves phonological change occurred in the case of the modern Romani homonymous pair *rat* (blood) and *rat* (night). The presence in Hindi of [rakt] (blood) and [rat:] (night) seems to indicate that the two words were not originally homophones. Sanskrit [ranj] (blood) somehow acquired a [k] in the word-building process—this is evidenced in Sanskrit [raktapuna] (blood drinker) and [raktapayin] (leech). Hindi preserves [kt] in [rakt] while Romani simplified the cluster by dropping the [k]. Without the [kt] cluster or vowel length to differentiate the meanings of “blood” and “night,” the two words have become homonyms in Romani.

In the case of Romani *pachinel* (to smell), a curious semantic shift has taken place. Whereas the Hindustani word for “to smell” [su:nghna:] seems to have a history unrelated to Sanskrit, the Romani word appears to be a semantic extension of Sanskrit [paka], the verbal noun meaning “cooking” or “baking”.1 Apparently, the Roma came to associate the pleasant aromas of baking with the act of smelling them, thus encoding the verb for smelling with information about what was originally being smelled. In terms of phonological shift, the [k] in [paka] simply lenited to [x] in [pachinel] due to the influence of Slavic phonology as well as the intervocalic environment in which [k] is instantiated.

Similar expositions could be conducted for all of the 0-category Romani words found in the Swadesh list. For the sake of space, however, only a few are listed in table 3. Notice how, even though the Romani words in the table have no Hindi, Sanskrit, or Hindustani equivalents that match them both phonetically and semantically, the Hindi and Sanskrit words in the middle column share some of the same semantic and phonetic space as the Romani 0-category words. This demonstrates the fact that semantic shift has gone on in Romani over time, along with sound changes that additional

Table 3. Romani “0-category” Words and Their Indic Counterparts

<table>
<thead>
<tr>
<th>Romani</th>
<th>Hindi / Sanskrit</th>
<th>Hindustani</th>
</tr>
</thead>
<tbody>
<tr>
<td>khelel ‘to dance’</td>
<td>Hindi [k'elna:] ‘to play’, ‘to stage’</td>
<td>[na:c'na:] ‘to dance’</td>
</tr>
<tr>
<td>tavel ‘to cook’</td>
<td>Hindi [tav] ‘heat’</td>
<td>[pa:kana:] ‘to cook’</td>
</tr>
<tr>
<td>men ‘neck’</td>
<td>Sanskrit [manya:] ‘back of the neck’</td>
<td>[garda:] ‘neck’</td>
</tr>
<tr>
<td>briyi ni ‘rain’</td>
<td>Sanskrit [var\a] ‘the rainy season’</td>
<td>[menh] ‘rain’</td>
</tr>
<tr>
<td>c'\a\c'\a ‘right’, ‘correct’</td>
<td>Hindi [ac'\a'\a] ‘good’</td>
<td>[durust] ‘right’, ‘correct’</td>
</tr>
<tr>
<td>ka\f ‘tree’</td>
<td>Hindi [ka\st] ‘cultivation’</td>
<td>[darak\t] ‘tree’</td>
</tr>
<tr>
<td>parno ‘white’</td>
<td>Hindi [pa:rdarsi:] ‘transparent’</td>
<td>[safed] ‘white’</td>
</tr>
</tbody>
</table>
studies might undertake to identify in detail.

Finally, a brief discussion of the glottochronological results of the study is warranted. If the lexicostatistical results were fairly accurate, it stands to reason that the glottochronology of Romani, Hindustani, and Czech should also be valid. According to Cole (1998), archaeological evidence places the Slavs between the Vistula and Dnieper rivers around the seventh century B.C. According to her, it is during this time period that the Slavs may be considered a distinct ethnic group for the first time. The glottochronological data in the present study indicate that the split between the Slavic and Indic language families occurred 3,000 years ago. This figure would give the Slavs plenty of time to trek from the Eurasian Indo-European homeland and set up camp between the Vistula and Dnieper in the seventh century.

Romani historians like Courbet (1996) agree that the first diaspora of the Roma occurred around A.D. 1000. At this time, the Sindh and Panjab regions of India were invaded some seventeen times by an army of Islam warriors led by King Mahmud of Ghazni (present-day Iran). Though the Indian resistance was fierce, the records indicate that King Mahmud eventually triumphed, carrying off a million slaves as human booty. These slaves are generally considered to be the ancestors of the Roma. Again, if this catastrophe took place in the year 1000, the event correlates well with the glottochronological data that splits Romani from Hindustani roughly 1,000 years ago. While certainty about early events in the development of Slavic and Romani may never be achieved, it is important to note that Swadesh's glottochronology corresponds well with the limited information we do have about the early history of the Slavs and the Roma.

CONCLUSION

The purpose of this study was to test the reliability of Swadesh's lexicostatistical model of language change by determining whether or not his statistical technique could verify conventional wisdom about the subgrouping of three Indo-European languages: Romani, Czech, and Hindustani. It was hypothesized that the results of a classic lexicostatistical study would confirm that Romani and Hindustani are languages of the same family, and that Romani and Czech represent families of the same stock. Both hypotheses proved to be correct. In addition, Swadesh's glottochronological formula was found to be a fairly reliable instrument for determining at what time-depth Romani separated from Hindustani and at what time-depth the Slavic and Indic language families broke off from Proto-Indo-European.

Besides producing statistical results that indicate the relationship between languages, lexicostatistical analysis can also serve as a point of departure for more general lexicography. By lining up core vocabulary terms in various languages and analyzing them methodically with the aid of bilingual dictionaries, the analyst may discover a wealth of information about the histories of the words. In this study, particular attention was paid to those Romani lexemes that do not appear to have exact phonetic and semantic equivalents in the Indic languages (the so-called O-category words). It was demonstrated that such words do bear a phonetic and semantic resemblance to noncognate words in the sister and parent languages, though semantic and phonological shifts have made these relationships harder to define. In effect, it is this network of synonyms, gradually changing over time, that bespeaks the truly ancient history of the Romani language and challenges anyone who proposes that Romani is little more than a criminal jargon that has been relexified.
with an Indic vocabulary. Romani is, in fact, a rich and diverse language whose history and lexical structure are as intriguing as its enigmatic speakers.

NOTES

1. In his Sanskrit dictionary, Benfey adds another interesting twist to the semantic domain of \[\text{paka}\]. He refers to \[\text{kumbhî-paka}\] as a level of hell in which the wicked “are baked like potter’s vessels.”

REFERENCES

NL-Soar is a computer system that models human language use within the context of cognition. It was developed as a specialized branch of Soar, a general model of cognition created by Allen Newell (1990), who, with others, implemented it. This model has continued to evolve as other researchers have used it and expanded its computer implementation. Theoretically, because it is embedded in cognitive theory, it has a number of advantages over straight linguistic models in its ability to model language as a cognitive phenomenon. For instance, it may be used to model aspects of language acquisition (e.g., the learning of English articles by native Polish speakers) or to model language use interspersed with nonlanguage tasks (e.g., talking on a cell phone while driving) in terms of Newell’s more general theory of learning.

Despite these advantages, NL-Soar has been limited by its small lexicon. This paper reports on expanding the lexicon and using the new version to model word sense disambiguation. Preliminary tests involving “body” verbs (sneeze, yawn, etc.) have met with encouraging success.

FINDING A LEXICON FOR NL-SOAR

Since NL-Soar models all aspects of language (syntax, semantics, etc.) in the same system as other aspects of cognition, it may integrate the various subtasks of language comprehension and production not just with each other but with nonlanguage tasks as well. One previous application of NL-Soar, TacAir-Soar, modeled the language use of military jet pilots during military exercises, particularly how pilots coordinate listening and speaking with nonlanguage tasks such as controlling the airplane (Lehman, VanDyke, and Rubinoff 1995).

However, NL-Soar’s potential has not been fully developed. The majority of NL-Soar research has focused on syntax and discourse. A module for phonetics and phonology has also been developed, but it has not yet been integrated into the system. A general morphological parser is also lacking. These two modules would greatly add to NL-Soar’s completeness; in the interim, however, phonetic and phonological concerns can be bypassed by using written-text examples, and the morphology of English has proved simple enough to handle through other means. By far the most urgent need for expansion is in the lexicon and the semantic representation. Even a system with fully operational phonology, morphology, and syntax is still of limited usefulness without a full-size lexicon.

Until very recently, NL-Soar has depended on an ad hoc lexicon of a few thousand words with limited feature information. Such a model is not only much too small but also too simplistic in structure to represent the human lexicon. Words are not stored in a simple list inside the mind like a dictionary in alphabetical order. They are connected by a complex system of semantic relationships, both paradigmatic (synonyms and
antonyms, hyponyms and hypernyms, and other semantic relations) and syntagmatic (what types of words or word classes are likely to be syntactically related). In order for NL-Soar to model the human lexicon with some degree of accuracy, it must use a resource that takes these relationships into account. A simple list of words and definitions, no matter how long or how complete, is inadequate.

SYNONYMY AND POLYSEMY IN ENGLISH

English, like most natural languages, is rich in both synonymy and polysemy. In other words, a single concept may have many words used to describe it, and a single word may describe many concepts depending on the context in which it is used. The problem is compounded if one considers that there is no list of concepts universally agreed on and that the meanings of words continually change. Any listing or mapping of words to concepts will be arbitrary to some degree. Even if you assume a finite number of discrete concepts and a stable list of words to describe them, this the many-to-many relationship between words and concepts makes a mapping from the syntactic tree to a semantic representation a non-trivial difficult task for a computer. As more words are added to the system, the task grows in complexity.

For purposes of comprehension, the issue of synonymy is relatively minor, as a many-to-one function is not difficult to model. However, polysemy poses a big the problem of a one-to-many relation. Given a word in a sentence, how can a computer system like NL-Soar know how to represent it semantically or even which of a (somewhat arbitrary) list of senses best fits the intended meaning? People determine this meaning by context—that is, a set of clues both from the discourse surrounding the word and the environment surrounding the speakers. But context is a vague notion, for an incredible variety of information is available to listeners at any given time, far more than can be profitably modeled on a computer. The task in modeling context, then, is to discover what sorts of information people find most useful in determining the most likely meaning of a word and how they use this key information. In particular, we will see how closely we may approximate the process of assigning meaning to a sentence by modeling certain key aspects of the linguistic context within the bounds of the sentence itself. For the purposes of this paper, we will (narrowly) define context as a variety of morphological, syntactic, and semantic clues contained in the sentence itself.

Because of the polysemy inherent in natural languages, fitting NL-Soar with a lexicon turns out to be a twofold task. Firstly, NL-Soar must represent the same types of information that seem to exist in the human lexicon; namely, relationships between words and concepts (or word-senses), paradigmatic relationships between concepts, and syntagmatic (or collocational) relationships between words. Secondly, NL-Soar must deal with the problem of assigning the most likely meaning for polysemous words—a task known as Word Sense Disambiguation (WSD). As we shall see, the two problems turn out to be quite interrelated. Moreover, both of them have been addressed by an electronic lexicon called WordNet.

WORDNET: A MODEL OF THE MENTAL LEXICON

Like a standard dictionary, WordNet contains a full-size lexicon—over 91,000 concepts defined and a similarly large number of words—providing glosses, examples, and grammatical information. At first glance, then, it may seem like an
electronic dictionary. However, it is more than that. A typical dictionary like Merriam-Webster is not organized the way the human lexicon is, nor does it include the same types of information, such as paradigmatic and syntagmatic relationships between words. While dictionaries and thesauri do address polysemy and synonymy, they do not attempt to do so in the same way the mind does. WordNet, on the other hand, is explicitly designed upon psycholinguistic principles (Fellbaum 1998, 89).

Paradigmatic Relationships

WordNet is organized by means of paradigmatic semantic relationships such as synonyms and antonyms. Words are not ordered according to spelling or sound, but rather by meaning, with sets of synonyms grouped together. Other paradigmatic relationships are accomplished through a system of links to other words or synonym sets as appropriate. Adjectives are organized by antonymic and scalar relationships; nouns and verbs are linked to a general hierarchy of hypernyms (more general terms) and hyponyms / troponyms (more specific terms). A full list of the possible relationships (besides synonyms) is shown in table 1.

General Word Classes

In addition to the word- and concept-level relationships listed in table 1, WordNet also groups every word into one of 45 semantic classes (26 noun classes, 15 verb classes, and 4 classes for other parts of speech). Although these divisions were originally made for convenience in managing the lexicographers' task, they are still useful inasmuch as they are semantically motivated. With some slight approximation, these may be considered a "top level" of the semantic hierarchy for nouns and verbs. For the purposes of this project, we will assume these categories are roughly equivalent to mental semantic classes and use them as general classes for our semantic representations.

Syntagmatic Relationships

In contrast to paradigmatic relationships, WordNet does not directly provide information for syntagmatic relationships (such as the co-occurrence patterns between nouns and verbs). A large part of our current research task is to fill this gap. However, WordNet gives us a variety of tools to work with, including syntactic sentence frames for verbs. Although WordNet does not directly tell us which verbs or verb senses go with which nouns or noun senses, it does tell us what sorts of "grammatical" slots are available to various verb senses. That is, for every verb sense, WordNet says whether it needs an object, two objects, a prepositional phrase, or some other construction to complete its meaning. For example, the verb obtain must take a direct object when it means "get," but it is intransitive when it means "be valid." WordNet represents this distinction as shown in Figure 1.

For more detailed syntagmatic information, such as what types of nouns fit into these frames, it is necessary to extrapolate from WordNet's general semantic classes. There are numerous examples of specific words idiomatically associated with other specific words (e.g., trip a

| Table 1. Paradigmatic Relationships Encoded in WordNet |
|-----------------|-----------------|-----------------|-----------------|
| Noun            | Verb            | Adjective       | Adverb          |
| Antonym         | Antonym         | Antonym         | Antonym         |
| Hyponym         | Troponym        | Similar         | Derived from    |
| Hypernym        | Hypernym        | Relational Adj. |                 |
| Meronym         | Entailment      | Also See        |                 |
| Holonym         | Cause           | Attribute       |                 |
| Attribute       | Also See        |                 |                 |

Figure 1. Three Senses of Obtain from WordNet

Sense 1: obtain—
(come into possession of; "How did you obtain the visa?")
*-> Somebody ----s something
*-> Somebody ----s something from somebody

Sense 2: receive, get, find, obtain, incur—
(receive a specified treatment (abstract); "These aspects of civilization do not find expression or receive an interpretation"; "His movie received a good review"; "I got nothing but trouble for my good intentions")
*-> Something ----s [something]

Sense 3: prevail, hold, obtain—
(be valid, applicable, or true; "This theory still holds")
*-> Something ----s

circuit, snap a photograph). It may be that general word classes of nouns (e.g., nouns referring to humans) are also associated with other word classes (e.g., verbs of communication). Miller (in Fellbaum 1998, 29) notes that the noun senses in the 26 noun files were classified according to how well they fit with various adjectives. It seems that these categories may also be useful for determining their selectional restraints how well they fit with for verbs as well.

Synonymy and Polysemy in WordNet

In addition to assigning each concept to a general semantic class, WordNet contains much more specific associations between words and concepts. First, it divides each word into various senses. Then it groups each word sense into concepts (synonym sets). Although certain relationships (e.g., antonymy) apply particularly to individual words or word senses (i.e., at the lexical level), most semantic relationships apply for all the word senses in the synonym set (i.e., at the conceptual level). Thus synonymy and polysemy are modeled by having two separate, but closely linked, levels of organization: the lexical and the conceptual.

APPLYING WORDNET TO WSD

WordNet gives us a variety of tools for representing the semantics of given words and utterances. Now we turn to our second problem, that of WSD, or choosing the right meaning for a word within a given sentence. People are said to do this by using the surrounding context. But defining what "context" means, or modeling this context on a computer, has proved difficult.

Various approaches have been used to tackle WSD, ranging from statistical approaches (connectionist, most-probable fit) to rule-based approaches (based on surrounding contexts and hand-coded linguistic rules), to knowledge-based approaches (based on artificial intelligence and "real-world knowledge"). Although a considerable amount of work has been done in the field in the last thirty years, there is still a wide gap between human abilities of WSD and the computational methods currently popular. Miller (1996, 127) notes that people learn the usage of a new word sense after fifteen to twenty examples. In contrast, statistical weighting systems need up to two hundred training examples to achieve ninety percent accuracy in discriminating between just two word senses. The performance of these systems typically suffers when each word has many senses and when the test sentences contain several ambiguous words. By contrast, humans disambiguate sentences with multiple polysemous words quite readily and actually seem to process words with many senses faster than words with only a few senses, and with little loss of accuracy. Furthermore, statistical systems generally arrive at their conclusions by evaluating complex mathematical equations—a more complicated method...
than seems reasonable for people to be doing “on the fly” in the split second that a person takes to understand a word’s meaning.

Many of these approaches fail because they do not utilize the same types of information that people do. These systems rely heavily on statistics and general pattern recognition, but by and large they ignore the syntactic and semantic clues that people use automatically. While some have attempted to use syntax and lexical information, they still fall short because they must formulate decision algorithms for individual words (Kelly and Stone 1975; Oflazer and Yilmaz 1995; Resnik 1993). WordNet provides a crucial advantage in grouping words into coherent semantic classes by allowing generalization of patterns across these broader categories. Rather than learning a rule for every word, a system using WordNet may learn a small number of general rules and apply them to a whole class of words.

**Contextual Clues for WSD**

*Morphology and Part of Speech*

The first clues we must consider in WSD are the word’s morphology and part of speech. Obviously, if we see the word *batting*, the suffix tells us we are dealing with a verb and are therefore not talking about a flying mammal. WordNet enables NL-Soar to utilize these clues. *Morphy*, a morphological analyzer that is part of the WordNet package, gives all possible roots (base forms) and parts of speech for the particular form of the word as we encounter it in a sentence.

*Syntax*

Now a word like *batting* is morphologically unambiguous. But how about *bats*? It could be either a plural noun (either wooden or winged) or a third person singular present verb. However, many if not most contexts will rule out either the noun or the verb senses by syntactic context. For example, there is just no way to parse *bats* in “He bats .400” as a noun, even though it is morphologically possible. NL-Soar’s syntactic utterance-model parses the syntax before semantic parsing or WSD is attempted.

Syntax may help us with distinctions more subtle than parts of speech, as well. As we saw in table 2, the word *obtain* has two transitive senses and one intransitive sense. Although the last sense is a rare one, it is easily identifiable by the absence of a direct object. Therefore, the syntactic “frames” which WordNet provides with the various verb senses will also help us rule out possible senses.

Finally, some word senses are more likely to play certain roles in the sentence than others. For example, chairs that are pieces of furniture are rarely subjects of verbs, whereas chairs that head departments often are. This is partially a syntactic concern, but also includes semantic features. The role that a word plays in a sentence may therefore be a useful clue in determining its sense. These tendencies of certain nouns to play certain roles are not random idiosyncrasies but arise from semantic properties of nouns. A strategy which takes into account the role in the sentence should also take into account semantic features of the other words in the sentence.

*Semantics*

Obviously, there are some verbs that *chair* (piece of furniture) can appear in subject position with: *be*, *seat* (someone comfortably), *break*, *creak*, and so forth. However, there are classes of verbs for which neither pieces of furniture nor any inanimate object can perform—verbs of thought, emotion, and social action among them. The 45 general semantic classes will enable us to describe these sorts of syntagmatic relations with greater precision than syntax alone.

*Word-sense frequency*

It seems also that the overall relative frequency of various word senses plays a
significant role. In an earlier demonstration of this project, several people unacquainted with the subject matter had difficulty with the sentence “the chair yawned,” because the “piece of furniture” sense of chair is so much more common than the “head of department” sense. We are currently using frequency as a way to choose between the possible senses remaining after morphology, syntax, and semantics have removed inappropriate ones. However, frequency may play a stronger role in reality, as the confusion with “the chair yawned” demonstrates. By listing the various word senses in order of frequency, WordNet also provides us with this useful criterion.

This ordering privileges the morphological, syntactic, and semantic constraints over the frequency factor. It may be that frequency plays a greater role than that and actually interferes with semantically preferable readings, as suggested by the difficulty people had with the example sentence “the chair yawned.” Details such as the relative importance of various contextual clues may be further explored once the theory’s basic architecture is fleshed out.

The Scope of this WSD Task: Semantic-Class Disambiguation

Since each word is divided into a finite number of word senses, it would seem reasonable to define the WSD problem as determining which sense of all the available WordNet senses is most appropriate. This turns out to be an unreasonable task however, and perhaps not the best model of what people actually do. Yorik (1999) cautions that untrained humans may have difficulty with the WSD task, or at least with the fine level of distinctions found in WordNet. (Remember that WordNet was built by trained lexicographers over a period of ten years.) An experiment by Fellbaum, Grabowski, and Lordes (1998) showed that untrained native speakers of English, when asked to choose the most appropriate sense of a word in context from a list of predefined senses taken from WordNet, chose the “correct” sense (as defined by trained lexicographers) about seventy-four percent of the time and agreed among themselves seventy-nine percent of the time. This suggests that choosing among the fine-grained distinctions found in WordNet may not be a valid task to model.

However, this does not mean the WSD task cannot be modeled at some level. Just as word senses may be defined on a variety of “grain sizes,” so WSD can be attempted at varying degrees of precision. (WordNet itself provides a beautiful illustration of this with its hierarchies, with the 45 general word classes near the top.)

We are not currently tackling the finest-grain level of WSD but a fairly coarse-grain distinction. It is unclear what levels of distinctions people ordinarily make between various word senses. Therefore, it seems advisable to begin with coarse-grain, obvious distinctions between senses (such as “flying mammal” versus “stick of wood” for bat) before attempting the finer-grained distinctions found at the “bottom level” of WordNet. For this reason we are starting with the 45 general word classes. Our task, then, is this: given a sentence, can NL-Soar determine which of the general word-classes the correct sense (or senses) of each content word would belong to? I will refer to this “coarse-grain” disambiguation task as Semantic Class Disambiguation (SCD).

The method for SCD is very similar to the method for full WSD outlined above. NL-Soar makes use of the same sorts of clues people would use, including morphology (as provided by Morphy), syntax (as generated by NL-Soar’s own syntax module), and lexical information provided by WordNet. Naturally, there are a variety of factors people would use, such as real-world knowledge and real-word context, as well as subtler matters of discourse analysis and reference resolution, which NL-Soar at present cannot bring to the problem. However, these sorts of clues can
be simulated to a small degree by statistical corpus-based measures, including word-sense frequency and word-sense semantic-class syntagmatic collocations. I will describe the role that these play in more detail below.

**PREPARING NL-SOAR TO LEARN SCD**

What has preceded has provided a rough sketch of the theoretical aspects of NL-Soar’s construction. I turn now to a brief treatment of some of the technical aspects. Two main tasks must be accomplished before NL-Soar is able to use WordNet for SCD. First, it must be able to access and process the WordNet data. Second, it must have some sense of the paradigmatic relationships between words and classes of words (particularly nouns and verbs) that WordNet does not provide directly.

**Connecting NL-Soar to WordNet**

As stated before, NL-Soar was initially created with an ad hoc lexicon vocabulary list limited not only in the number of words included but also in the breadth of information included for each lexical item. Each of these lexical items was written as a separate “production” (or Soar subroutine). Since the old NL-Soar word list did not process morphology, even different forms of the same word had their own separate rules. The first step to modeling a full-size lexicon is replacing the original vocabulary list with a general procedure for accessing WordNet’s lexicon.

In the process of replacing the old word list with WordNet, it has been necessary to write more general NL-Soar productions to access, store, and interpret WordNet data for all senses of a word. Since WordNet provides a wealth of information never before used in NL-Soar, this has required developing new “lexical attributes” to contain semantic information from WordNet. Although NL-Soar currently uses only a small part of this information in the SCD task, our goal is to make all of WordNet’s information available for future applications and improvements of NL-Soar. Finally, it has been necessary to test NL-Soar after replacing the lexicon to make sure it has not lost important aspects of its functionality.

**Discovering Semantic Class Collocations**

As noted above, WordNet only contains a portion of the information which seems to be necessary for SCD. The second step of preparation involves learning the syntagmatic collocations between general classes of nouns and verbs. Fortunately, the WordNet package includes a resource known as *semcor* (semantic concordance), which consists of portions of the Brown Corpus (a million-word corpus with a wide variety of genres) with each content word hand-marked for word sense and indexed to the WordNet lexicon.

Given this resource, the method for discovering syntagmatic relationships is fairly simple. For each of the fifteen verb classes, we will need to search *semcor* for examples of verbs within the class. Each of these verbs is examined in its context sentence, and the subjects, direct objects, and indirect objects are noted. The classes to which these subjects and objects belong are tallied, and the classes of nouns that appear most often in the subject and object roles are considered to be the “canonical” external and internal arguments of these verb classes. Other classes are considered to be metaphorical usage. This information is captured in the NL-Soar program through a semantic constraint, which restricts the possible external and internal roles of a verb from a particular verb class to the “canonical” noun classes when interpreting a sentence. Eventually, these constraints may be represented not as set constraints but as preferences for some noun-classes over others.
For example, WordNet semantic class #43, (weather verbs, e.g., shine, burn, rain, snow) has ten instances of subjects from semantic class #17 (natural objects) and three each from #4 (actions) and #19 (natural phenomena). Other semantic classes only show one or two instances, most of which are metaphorical. This knowledge will be reflected in a semantic constraint that prevents noun senses of classes other than #4, #17, and #19 from being assigned as external roles to weather verbs from class #43.

Similarly, the external (subject) role for "body verbs" (e.g., wear, sneeze, yawn, wake up), most commonly takes people, animals, or groups as subjects. The restriction on these verbs is similar to the one described for weather verbs. It looks something like what is picture in figure 2 when encoded as an NL-Soar production.

**NL-Soar Protocol for Word Class Resolution**

Once the lexical information is available from WordNet and the syntagmatic relationships are reflected in semantic constraints, the procedure of selecting the appropriate word classes is fairly simple. When a word first comes into the system as part of a sentence, information from Morphy returns the root of the word, and related NL-Soar productions supply possible parts of speech for the word. NL-Soar then selects one of these parts of speech as most appropriate (given the syntactic model that it has created for the sentence thus far) and eliminates the word senses of the other parts of speech. If the chosen part of speech is a verb, some of the remaining senses or classes be preferred over others on the basis of the sentence frame (assuming enough of the sentence has been heard to disambiguate the frame). Then the remaining word senses (or word classes) are passed through the semantic-class co-occurrence constraints.

Like sentence frames, syntagmatic constraints center on the verb sense and restrict the classes of nouns which are may occur with the verb. For each semantic class that contains a sense of a given verb, starting with the most frequent sense, NL-Soar’s constraints test the match between the verb’s syntactic subject and object (if any) and the verb class’s preferred external and internal arguments. If the noun under consideration belongs to one or more semantic classes compatible with the verb’s class, then the most frequent compatible class is chosen, and the two are bound together in the sentence’s semantic representation (or

---

**Figure 2. NL-Soar Production for Restricting the External Roles of Body Verbs**

```
sp {top*access-*english*bbody*external
(state <g> ^t-state <ts> ^op/r <o>)
(0> ^name access ^language english)
(0> ^sentence <word>)
(<word> ^word-id.word-name <wordname>)
(<word> ^wndata.vals.sense <sense>)
(<sense> ^fname v-body)
-->
(<word> ^semprofile <sp> + &)
(<sp> ^category v-body ^external <subject>)
(<subject> ^category *
   ^semcat n-animal + &
   ^semcat n-person + &
   ^semcat n-group + &)}
```

### constrain agent role

| IF: doing lexical access
AND: the current word has a semclass
AND: the semclass is v-body
THEN: record that its related concept takes an agent |
situation model). If no appropriate noun classes senses are found for the verb class, then the next most frequent verb sense is tried. If no matches are found between any of the noun and verb classes, then the sentence is rejected as semantically odd (although it may have some metaphorical reading beyond NL-Soar’s capabilities). This process is shown in figure 3.

Example Sentences

For an example of the basic scenario, where the most frequent senses match appropriately, take the sentence “The woman yawned.” The most frequent sense of the verb yawn is in the class v-body, and therefore the semantic constraint for body verbs (shown above) is fired to check if the subject of the sentence fits into an appropriate noun class. The most frequent sense of woman is in fact a member of the class n-person. The n-person class fits as a subject of v-body, and NL-Soar creates an external argument link between these two senses in its situation model. Thus the semantic representation for this sentence succeeds on the first try, with the senses we would expect. NL-Soar automatically rejects the other, less frequent meanings of woman and yawn.

In our second example sentence, “The chair yawned,” we see a little more of NL-Soar’s machinery. First of all, on the syntax side, chair can be either a noun or a verb (e.g., to chair a committee). Both meanings are found in WordNet, and NL-Soar duly considers both. Since NL-Soar’s syntax module recognizes that verbs rarely follow determiners, the verb reading (and with it all of the verb senses of chair) is quickly discarded.

However, there are still several senses available for the noun, the most frequent of which (piece of furniture) is inappropriate (or odd at best). This sense belongs to the semantic class n-artifact, which (as we see in the NL-Soar constraint in figure 5) is not one of the allowable classes for subjects of body verbs. Consequently, NL-Soar rejects the n-artifact reading of chair and tries the next one. This sense (the position of professor) is classified as n-action and similarly fails. The third sense (the officer who presides at the meetings of an organization) is in the category n-person and accordingly succeeds in matching the external role of the body verb yawn.

In our third example sentence, “The crevasse yawned,” it is the most frequent verb sense which that is inappropriate (see figure 6). Hence, all the senses of crevasse are cycled through without success, and the v-body reading of yawn fails. The other senses of yawn (gape, yaw, be wide open) are stative verbs. There are no semantic restrictions against crevasses performing stative verbs, so this reading succeeds.

FURTHER RESEARCH

In the near future, we will expand our research from v-body and v-weather to all classes of verbs and will consider objects as well as subjects. Eventually, we will also consider adjectives, adverbs, and prepositions. After the “coarse-grain” relationships between semantic...
classes are modeled, we may turn our attention to more fine-grain word-sense distinctions using WordNet’s semantic hierarchies to describe more specific generalizations and exceptions by inheritance. Finally, we plan to develop methods of learning the lexical co-occurrences automatically from corpora, obviating the need for manual “hard-coding” of semantic restrictions. Techniques for such corpus learning are being developed for MicroSoft’s MindNet (Richardson 1997) and therefore seem theoretically possible to develop here.

CONCLUSION

Despite some minor difficulties, the syntax module has done a remarkable job of scaling up to meet the challenge of WordNet’s tremendously large vocabulary and the considerable degree of part-of-speech ambiguity that has resulted from this increase. For many sentences the syntax does the majority of the work in the disambiguation process. The semantic constraints, on the other hand, turned out to be more problematic than originally anticipated. This may be due to some bias in the preliminary sampling: the semantic class constraints were based on small samples that overemphasized a few text types and domains. This bias may have prevented the constraints from representing the true distribution of

Figure 4. Syntax and Semantics for “The woman yawned.”

Example Sentence: The woman yawned.
(This is the basic case: most frequent senses succeed).

Syntax: Semantics:
- first tree works v-body & n-person match.
  - v-body & n-person yawned
  - v-stative never tried.
  - n-person woman
  - v-stative yawned

Figure 5. Syntax and Semantics for “The chair yawned.”

Example Sentence: The chair yawned.
(Most frequent noun sense inappropriate)

Syntax: Semantics:
- chair verb rejected v-social chair
- chair noun accepted
- chair verb senses rejected v-body yawned
- n-artifact incompatible w/v-body n-person chair
- n-person accepted
external and internal noun classes for each verb class. Nevertheless, WordNet has proved a very useful tool in expanding NL-Soar. Although only a small part of the information is currently utilized, these data have created surprisingly good results in preliminary tests of the semantic representation system.

**BIBLIOGRAPHY**


# Appendix A: List of the General Semantic Classes

(from file 'lexnames(5WN)' from the website www.cogsci.princeton.edu/~wn)

<table>
<thead>
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<th>Name</th>
<th>Contents</th>
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<td>adj.all</td>
<td>all adjective clusters</td>
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<tr>
<td>01</td>
<td>adj.pert</td>
<td>relational adjectives (pertainyms)</td>
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<tr>
<td>02</td>
<td>adv.all</td>
<td>all adverbs</td>
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<td>unique beginners for nouns</td>
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<td>nouns denoting acts or actions</td>
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<td>noun.process</td>
<td>nouns denoting natural processes</td>
</tr>
<tr>
<td>23</td>
<td>noun.quantity</td>
<td>nouns denoting quantities and units of measure</td>
</tr>
<tr>
<td>24</td>
<td>noun.relation</td>
<td>nouns denoting relations between people or things or ideas</td>
</tr>
<tr>
<td>25</td>
<td>noun.shape</td>
<td>nouns denoting two and three dimensional shapes</td>
</tr>
<tr>
<td>26</td>
<td>noun.state</td>
<td>nouns denoting stable states of affairs</td>
</tr>
<tr>
<td>27</td>
<td>noun.substance</td>
<td>nouns denoting substances</td>
</tr>
<tr>
<td>28</td>
<td>noun.time</td>
<td>nouns denoting time and temporal relations</td>
</tr>
<tr>
<td>29</td>
<td>verb.body</td>
<td>verbs of grooming, dressing and bodily care</td>
</tr>
<tr>
<td>30</td>
<td>verb.change</td>
<td>verbs of size, temperature change, intensifying, etc.</td>
</tr>
<tr>
<td>31</td>
<td>verb.cognition</td>
<td>verbs of thinking, judging, analyzing, doubting</td>
</tr>
<tr>
<td>32</td>
<td>verb.communication</td>
<td>verbs of telling, asking, ordering, singing</td>
</tr>
<tr>
<td>33</td>
<td>verb.competition</td>
<td>verbs of fighting, athletic activities</td>
</tr>
<tr>
<td>34</td>
<td>verb.consumption</td>
<td>verbs of eating and drinking</td>
</tr>
<tr>
<td>35</td>
<td>verb.contact</td>
<td>verbs of touching, hitting, tying, digging</td>
</tr>
<tr>
<td>36</td>
<td>verb.creation</td>
<td>verbs of sewing, baking, painting, performing</td>
</tr>
<tr>
<td>37</td>
<td>verb.emotion</td>
<td>verbs of feeling</td>
</tr>
<tr>
<td>38</td>
<td>verb.motor</td>
<td>verbs of walking, flying, swimming</td>
</tr>
<tr>
<td>39</td>
<td>verb.perception</td>
<td>verbs of seeing, hearing, feeling</td>
</tr>
<tr>
<td>40</td>
<td>verb.possession</td>
<td>verbs of buying, selling, owning</td>
</tr>
<tr>
<td>41</td>
<td>verb.social</td>
<td>verbs of political and social activities and events</td>
</tr>
<tr>
<td>42</td>
<td>verb.statative</td>
<td>verbs of being, having, spatial relations</td>
</tr>
<tr>
<td>43</td>
<td>verb.weather</td>
<td>verbs of raining, snowing, thawing, thundering</td>
</tr>
<tr>
<td>44</td>
<td>adj.ppl</td>
<td>participial adjectives</td>
</tr>
</tbody>
</table>
Language Policy in Hong Kong: A Review

Alan Cheung

There has been considerable debate in Hong Kong concerning language policy in teaching. The new language policy, implemented in 1998, requires all English secondary schools to switch their teaching medium from English to Chinese. Those schools that want to continue to use English as their medium of instruction have to appeal to the Chinese Education Department. Permission would be granted to a school under two conditions: (1) 85% of the students are able to demonstrate enough skill to handle English lessons, and (2) the teachers must be certified as capable of teaching in English. After assessments and evaluations, only 100 schools out of the 400 that applied were allowed to continue to use English as a medium of instruction. The other secondary schools must use Chinese as the main teaching medium.

The new language policy has unleashed criticism and sparked an educational debate in Hong Kong. Most parents, many of the business sectors, and some schools oppose the change, fearing that the switch will cause a decline in English proficiency in Hong Kong. The Education Department and some educators argue otherwise. They believe that the new language policy will help students learn more effectively in all subjects, including English.

In examining the language policy in Hong Kong, one has to look at not only the linguistic conditions in the school setting but also at those in the wider social environment. This paper analyzes how the social and economic factors of a society may affect the successful implementation of a language policy.

Historical Background of the Hong Kong Educational System

Before the handover, 350 of the 400 secondary schools in Hong Kong were English-medium schools. Chinese-medium schools were often perceived as second-class schools. Prior to the 1960s, Chinese schools enjoyed a more prestigious status. Yau (1989, 281) stated, “In the face of the fierce competition from English schools, Chinese medium education had been able to hold its own for nearly a hundred years. In fact, it was only in the latter half of this century that English-medium education began to catch on.”

Ever since Britain took over Hong Kong in the early 1840s, the British government spent most of their educational resources in English-medium schools. Although Chinese-medium schools did not receive any subsidies from the colonial government, they did well in enrollment. In 1954, over 40% of the candidates entering the School Certificate Examination were educated in Chinese-medium schools (Yau 1989, 281). However, the student enrollment in these Chinese schools has dropped significantly since the early 1960s. So (1984) suggested that two reasons exist for English schools’ dominance in education in the latter half of this century, namely, education and employment.
EDUCATIONAL OPPORTUNITIES

When the Communist Party came to power in 1949, China gradually adopted a radical policy that made opportunities for higher education in China almost disappear. The only opportunity for higher education in China then was the English-medium Hong Kong University. In order to gain entrance to and survive in this English-medium university, a good command of English was required. As a result, English schools became more attractive than Chinese schools because the language advantages of the former gave students a better chance to enter Hong Kong University.

EMPLOYMENT OPPORTUNITIES

Employment opportunities also played an important role in favoring English-medium schools in Hong Kong. Under colonial rule, proficiency in English was the key to a successful career in the government because English was the language of law, commerce, and administration. Furthermore, in the 1950s, Hong Kong became an international port, and business with English-speaking countries increased dramatically. In order to trade and do business with these countries, Hong Kong needed to educate people to speak and write English. As a result, the need for English-speaking workers grew substantially. Hence, English has played a major role in Hong Kong society since the early 1960s, and English-medium schools have become increasingly dominant. For example, the percentage of English schools grew from 57.9% to 91.7% from 1960 to 1990. On the other hand, the percentage of Chinese middle schools dwindled significantly during the same period, dropping from 42.1% to only 8.3% (see table 1).

In her article, “The controversy over teaching medium in Hong Kong—an analysis of a language policy,” Yau (1989) also reported similar trends in these two types of schools. For example, the percentage of students enrolled in Anglo-Chinese schools jumped from 67% to 90% from 1960 to 1985. During the same period, enrollment in Chinese middle schools dropped from 33% to only 10%.

REASONS FOR PROMOTING THE CHINESE LANGUAGE

The Hong Kong government has been pushing mother-tongue education for the past two decades. During the 1980s, the government proposed a “language package” worth over HK$600 million to encourage schools to use

<table>
<thead>
<tr>
<th>Year</th>
<th>Chinese schools</th>
<th>English schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>42.1%</td>
<td>57.9%</td>
</tr>
<tr>
<td>1965</td>
<td>29.0%</td>
<td>71.0%</td>
</tr>
<tr>
<td>1970</td>
<td>23.2%</td>
<td>76.7%</td>
</tr>
<tr>
<td>1975</td>
<td>21.3%</td>
<td>78.7%</td>
</tr>
<tr>
<td>1980</td>
<td>12.3%</td>
<td>87.7%</td>
</tr>
<tr>
<td>1985</td>
<td>9.5%</td>
<td>90.5%</td>
</tr>
<tr>
<td>1990</td>
<td>8.3%</td>
<td>91.7%</td>
</tr>
</tbody>
</table>

Source: Lee 1993, 206

<table>
<thead>
<tr>
<th>Year</th>
<th>Anglo-Chinese students</th>
<th>%</th>
<th>Chinese students</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>55,510</td>
<td>67</td>
<td>27,778</td>
<td>33</td>
</tr>
<tr>
<td>1965</td>
<td>109,133</td>
<td>71</td>
<td>45,334</td>
<td>29</td>
</tr>
<tr>
<td>1970</td>
<td>167,642</td>
<td>79</td>
<td>45,834</td>
<td>21</td>
</tr>
<tr>
<td>1975</td>
<td>267,979</td>
<td>81</td>
<td>61,884</td>
<td>19</td>
</tr>
<tr>
<td>1980</td>
<td>382,979</td>
<td>88</td>
<td>52,631</td>
<td>12</td>
</tr>
<tr>
<td>1985</td>
<td>358,928</td>
<td>90</td>
<td>37,556</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Yau 1989, 280
Chinese as the medium of instruction (Yau 1989, 280). The government adopted a scheme of "positive discrimination" in favor of Chinese schools. This scheme would provide more resources and monetary support to these Chinese schools. Various education reports produced by the Education Department also supported the move. For instance, in the Education Commission Report No. 1 (1984), the government stated clearly its support for mother-tongue education:

On the assumption that . . . research efforts would substantiate the two popular beliefs, namely: that all other things being equal, teaching and learning would be generally more effective if the medium of instruction were the mother tongue . . . we RECOMMEND that individual secondary school authorities should be encouraged to adopt Chinese as the medium of teaching. (par 3.18)

In 1986, the Education Commission’s Report No. 2 confirmed its original position regarding mother-tongue language. The report stated that according to research findings “the majority of the pupils would benefit if Chinese were used as the medium of instruction in lower forms.” In 1990 and 1996, mother-tongue education was again emphasized in Reports No. 4 and No. 6 in which the Education Commission stressed that Chinese as a medium of instruction was undervalued. The reports proposed that schools should employ Cantonese as the teaching medium. The government pushed for mother-tongue education for two reasons: educational and cultural. Because most of the primary schools in Hong Kong use Chinese as the teaching medium, one of the problems students face when they get into English secondary schools is linguistic shock. Most students do not know how to deal with the change of language instruction. One student described her strategy to cope with the situation:

At first I could not understand fully the lessons taught in English. But somehow I managed to memorize all of them by heart: grammar, reading, bible, hygiene, history, etc. After getting good marks for the first test without knowing how, I was always referred to when my class teacher scolded somebody for laziness. In order not to lose face, I had to keep on memorizing even harder. Fortunately, I could gradually understand more and more of the lessons I tried to learn by heart. Before long I had formed the habit of memorizing every lesson in every subject, including Arithmetic. (Fu 1987, 31)

Various researchers (Education Department 1994; Siu et al. 1979; Yu and Atkinson 1988) have shown that students learn better through their mother tongue. These studies have included various educational benefits of mother-tongue teaching, including:

1. Mother-tongue teaching has positive effects on students’ learning.
2. Most students prefer learning in the mother tongue.
3. Students learning in the mother tongue generally perform better than their counterparts using English as the medium of instruction.
4. Students of traditional Chinese-medium schools consistently achieve a higher pass percentage than the territory-wide average in both the Chinese Language and English Language sections of the Hong Kong Certificate of Education Examination.

This shows the positive impact of mother-tongue teaching on the learning of Chinese and English as a subject (Education Commission Report No. 4 1990).

In addition to educational reasons, the cultural factor is another reason for supporting mother-tongue teaching. In his 1982 report, Llewellyn stated that mother-tongue education should be emphasized in all schools because
"language reflects the soul and culture of a people. Each language has its own images, proverbs, sense of humour, and different thought structures expressing various facets of civilization" (25). Kwok also shared the same view as Llewellyn: "to preserve the tradition and dignity of Chinese culture, it is necessary to save the deteriorating Chinese education in Hong Kong" (Lee 1993, 209).

In the late 1970s, thirty-two cultural and educational organizations organized a "Second Chinese Language Campaign." The purposes of the campaign were (1) to strive for the use of the mother tongue as a medium of instruction in secondary school teaching, (2) to increase the social status of the Chinese language, and (3) to improve the quality of Chinese-English education (cited in Lee 1993, 209). Although there is little dispute on the advantages of mother-tongue teaching, most parents and schools prefer English-medium teaching. Lee identified three major reasons why many students and parents prefer English schools:

**PRACTICAL REASONS**

Hong Kong is an international port and, in order to compete in the international market, it will continue to need people at all levels in commerce, industry, and the professions who are fluent in English as well as Chinese. Yau (1987) surveyed 186 students as to why they chose English schools as their first choice. The students were asked to respond on a 6-point scale (0-5), with 5 being the most important, as shown in table 3. It is clear that the majority of students chose to learn English for practical reasons, such as employment and examination.

The attendance at various English language classes organized by the British Council and others also reflects the importance of English in Hong Kong society. In 1983, 35,000 people enrolled in the language classes. To many people, the more English you learn, the better you are both in terms of education and career. Chau stated that "In Hong Kong, money talks English, especially in education" (cited in Fu 1987, 31).

### Economic Reasons

The economic reason was perhaps the most clearly stated in the 1965 White Paper on Education Policy (Hong Kong Government 1965, 83). While acknowledging the educational and cultural advantage of learning through the mother tongue, the White Paper stated that "we are reluctant to endorse this recommendation in the fact of the parental preference for Anglo-Chinese secondary education, the fact that the English language is an important medium of international communication and that a knowledge of it has undoubted commercial value in Hong Kong" (cited in Lee, 1993, 212). Lin stated:

Hong Kong people are afraid of losing their "economic stability and prosperity" (a recurrent phrase in the public discourses in Hong Kong). The government, academic and media discourses repeatedly assert that Hong Kong's economic prosperity depends on attracting foreign investors, which in turn depends on providing them with an English-conversant labour force. This saturation of consciousness by the "economic argument" has legitimised the subordination of all sociocultural and educational goals to the single goal of mastering a socially,
Social Mobility Reasons

Parents and students perceive English as a means of climbing the social ladder. In an Urban Family Life survey, students were asked to see how they felt about the importance of the English language. Downey recorded the findings:

1. Pupils with a greater knowledge of the English language are from higher class backgrounds, have higher expectations of attending universities, and are more confident about their career success.
2. Pupils with the most knowledge of English are more optimistic about the future.
3. Pupils in Chinese middle schools, as well as in Anglo-Chinese schools, are most optimistic about their future if they have a good knowledge of the English language (cited in Lee 1993, 213).

Oppositions Against Mother-Tongue Teaching

Despite the genuine efforts of the Education Department, mother-tongue teaching has met with little success. People either ignore or reject it, not because of educational reasons but basically on socio-economic grounds.

Parental Attitudes

For most parents, Chinese-medium schools are not preferred alternatives for their children. From a 1989 study, Yau concluded that among the students presently enrolled in Chinese middle schools, some would have preferred going to Anglo-Chinese schools if there had been a place for them.

Like students, parents also perceive English as an important tool to help their children in their future careers. In 1989, the Education Commission formed a working group to review the current status of the medium of instruction. The Report of the Working Group on the Review of Language Improvement Measures states the following:

Most parents know that English has a utilitarian value as a gateway to better prospects in life for their children within Hong Kong or outside of it, and they therefore exert a great deal of pressure on schools in favour of English as a medium of instruction. (cited in Lee 1993, 213)

Business Attitudes

The termination of British colonial rule has not reduced the importance of English in Hong Kong because English is still the lingua franca of the world. As Lord (1987, 11) stated:

In Hong Kong, over the past two decades, English has changed from being a purely colonial language whose use was largely restricted to government circles, the law, high-level business, and a few other sectors, to becoming an indispensable language of wider communication, for a growingly large range of people, all the way down from top brass to clerks, from taipans to secretaries.

The business community opposes the change of teaching medium in schools and argues that English is essential to the success of Hong Kong's future economy, as well as to society as a whole. In response to the new language policy, the business sectors launched a "Hong Kong Language Campaign" between 1989 and 1990 to improve the English language ability of Hong Kong students and to raise the public awareness of the importance of English through various symposia and community activities. As a member of the Language Campaign stated, "The Language Campaign has helped to raise the consciousness of the community at
large about the threat of a declining level of English to the continuing success of Hong Kong as an international business community” (cited in Pun 1997, 94).

**Schools’ Attitudes**

One of the problems facing Chinese schools is that most parents and children view Chinese schools as inferior to English schools. Most believe that students from the Chinese schools are less likely to succeed in higher education and future careers. Some schools have tried to switch their medium of instruction from English to Chinese. Despite their genuine efforts, some of them failed miserably. The Carmel Secondary School was the salient example. In 1987, the school decided to switch their instructional language from English to Chinese. However after three years of experimentation, the school switched back to English based on the following reasons:

1. After the school announced its new language policy, it no longer could attract as many good students. The drop of the quality of students had a demoralizing effect on their teachers.
2. Pressure from parents was another main factor for the failure. Most parents opposed the switch, believing that the new system could not help their students compete with others in the future.
3. Even teachers feared that their students would not be able to catch up with others once they switched to other English schools and tertiary education.

David Cheung, the principal of Carmel Secondary School and an advocate of mother-tongue education, resigned after the incident (Interview, 1998). Because most students and their parents prefer English schools, Chinese middle schools become their second choice. As a result, Chinese-medium schools have to accept that most students who come to their schools are of much lower academic caliber. Although many school principals realized that using Chinese as the teaching medium could be good for students, they also feared that once they switched the instruction language to Chinese, they would not be able to attract students of the same quality. The nine-year compulsory education review committee interviewed twenty-one principals. Twelve expressed the fear that the adoption of Chinese-medium education would adversely affect the standard and image of their schools (cited in Yau 1989, 293).

In order to minimize such fears, the Hong Kong Professional Teachers’ Union (HKPTU) conducted a survey in July 1993. The schools were asked whether they were willing to change to mother-tongue education if such a change would not affect their competitiveness and if all the schools were going to switch their medium of instruction at the same time. Of the schools surveyed, 210 secondary schools (over 50%) indicated that they would support such a change. However, when the HKPTU initiated the “Mother Tongue Charter” and asked school sponsoring bodies in 1996 to sign it as a pledge in support of mother-tongue education, the response rates were extremely low. According to Au Pak-kuen, vice president of HKPTU, “only 29 schools signed the ‘Mother Tongue Charter.’” As one principal stated, “Many schools only paid lip-service to mother tongue education and not many schools really want to take the lead because of the Carmel secondary school’s effect. It is quite a sad thing.” (Personal interview 1997)

**Conclusion**

Few dispute the fact that mother-tongue education is effective and beneficial for the majority of Hong Kong students. As has already been pointed out, mother-tongue education gives students a better understanding of what is being taught and fosters their interest in
their subjects. However, despite all these merits, most parents have negative attitudes toward the new language policy and insist that their children be enrolled in English-medium schools. This paper has noted that the medium of instruction is not primarily an educational issue in Hong Kong. Rather, social and economic factors have played important roles in affecting the successful implementation of the language policy.

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LDS Ethnic Wards and Branches in the United States: The Advantages and Disadvantages of Language Congregations

Jessie L. Embry

INTRODUCTION

In the 1980s Esmeralda Meraz’s parents moved from Mexico to Southern California, seeking better economic possibilities. They moved back and forth between the two countries, finally settling south of San Diego. Her father was a Mormon; her mother converted to the Church. They became leaders in their Spanish-speaking branch. As Meraz (1991) explained, “Though my dad speaks English, he has not mastered the English language and he can’t communicate very well. . . . My mom has had less schooling than he has” and could say only a few words in English. When asked what she would do if there were no Spanish-speaking branch, Esmeralda’s mother pleaded in Spanish, “Please don’t make me go to the English ward.” She continued, “I think it would be a step backward for me. I like to be helping, working in the Church” (5).

Yet there were disadvantages to the branch. Esmeralda Meraz went from a fully functional ward in Mexico to a Spanish-speaking branch in California. “It was kind of discouraging to see only ten people . . . in the meetings. It was also discouraging not to see any youth. We [she and her three sisters and one brother] were the only kids that were attending church.” It was difficult to operate Primary and Young Women’s. Meraz continued, “We always had a feeling of not being complete and of not having everyone there that needed to be there to make it a successful experience for us every Sunday” (5, 10).

But integration was not always the answer. Meraz went to seminary with English-speaking students. She complained that the teenagers there “saw me as a different person. . . . They would make remarks and say things that didn’t make me feel very good and didn’t make me feel like I belonged.” She liked going to the branch because “they were not going to make a reference to my skin color or the fact that [she is] Mexican” (9–10).

The Meraz family is a classic example of why The Church of Jesus Christ of Latter-day Saints has had a roller-coaster view of sponsoring ethnic congregations in the United States. What works for one person does not work for another.

LDS Church Policy Towards Ethnic Congregations

Over the years, LDS Church policy toward ethnic congregations in the United States has varied. Sometimes the Church encouraged the formation of language wards and branches where members could hold meetings in their native tongues. Other times such specialized wards have been disbanded. These plans operated from mutually exclusive premises. Both met some needs of ethnic members and failed to meet others. Integration into multicultural, multilingual units was based on the ideal—and idealized—philosophy that gospel unity produces social unity. But the contrasting philosophy of ethnic independence recognized language
disabilities' (Embry 1992, 84; Florence 1992, 36).

Separate congregations have always existed in the Church at least to some degree. In 1849 Welsh immigrants met as a group in Salt Lake City, although some of their activities were in English. In 1852 Danish and German immigrants held meetings in their native languages. It is not clear whether these meetings were officially church sanctioned, but later organizations were. For example, in 1860 Brigham Young called Karl G. Maeser to preside over the German meetings. In 1877 all the non-English branches became part of the Salt Lake Stake. Ethnic congregations continued in Salt Lake until World War I, and again until World War II when they were all shut down except for the Mexican branch in Salt Lake City (Jensen 1987, 276-81).

In 1952, Church leaders organized a regional mission to convert non-English-speaking members in the Salt Lake Valley, believing that it was easier to convert immigrants than to travel to foreign countries. The newly created mission was the motivation to re-create language Sunday Schools. Then in 1962 and 1963, Apostles Spencer W. Kimball and Mark E. Petersen organized a branch for members speaking each of the following languages: Japanese, German, Dutch, Swedish, and Danish; they also organized a second Spanish (Cumorah) branch and two Native American branches. There were also French, Mandarin, and Cantonese Sunday Schools. Each branch became part of an organized stake (Church News, 21 April 1962, 7; Jensen 1987, 287-88).

While these branches helped the ethnic members feel at home in the Church, it meant a separation and different treatment from their neighbors and other Mormons. Apostles disagreed whether separate language congregations or integrated wards best met the needs of all members. The apparent uneasiness with a mixed policy kept the seesaw going back and forth in an effort to find a one-policy-fits-all solution.

The existence of separate missions to proselyte nonmembers in Utah and other parts of the United States raised the same questions. Some members of Apostle Spencer W. Kimball’s Indian and Minority Group Committee, composed of other apostles and some church members, felt that separate branches encouraged segregation. They argued that people from different cultures needed to meet and know each other as individuals and therefore that integrated congregations were best. Others felt integrated wards had a poor record of keeping ethnic minorities fully involved and growing.

Following established procedure, Kimball rarely mentioned what happened in meetings of the Quorum of the Twelve in his journal. However, he broke with that tradition on 3 February 1966 to express his deep misgivings about attempts to eliminate the ethnic branches and the language missions. He wrote:

“Among others was the matter of the possible integration of the minority group branches with the Anglo branches and the possible combination . . . of the missions, doing away with the Spanish-speaking missions in the United States . . . . I vigorously protested and while several of the brethren seemed to feel the other way would be better, I was so vigorous in my protestation that the President did not take a vote on it but asked us to return with the matter next week.” He continued, “While it would be easier, more adaptable to administration, I feel sure we would lose ground and many of our members and cease to grow as fast as we have done” (1966).

Despite Kimball’s resistance, administrative changes were made in the 1960s and 1970s. Since the ethnic congregations in Salt Lake City were active members of stakes and stake missionaries could talk to nonmembers, the Salt Lake Regional Mission was closed in 1967. While the Salt Lake ethnic branches continued to
operate, the General Authorities stopped organizing new ethnic congregations and even disbanded some. In a 1972 letter to all stakes, wards, and branches, the general leaders asked all local leaders and members to be conscious of “racial, language, or cultural groups.” Where there were language barriers, the congregations should organize special classes. If there were sufficient need, a stake president could ask for permission to organize a branch, but its boundaries had to match those of the stake. Some stake leaders, including those in Oakland, California, thought that the letter was asking them to dissolve their ethnic congregations. Others, including the leaders in the Los Angeles Stake, interpreted the letter as authorization to create language branches, but when stake leaders requested permission to do so in the 1970s the General Authorities refused (Larsen and Larsen 1987, 55; Orton 1987, 262–63).

However, the pendulum swung back. By 1977, the General Authorities realized they were not meeting all the needs of ethnic members. Small branches, especially those on Indian reservations, were unable to fully staff themselves. In response, General Authorities approved a Basic Unit plan which identified “essential” church programs for small congregations. Stakes used this simplified plan to set up ethnic branches. In explaining the need for these units, Spencer W. Kimball, then Church President, told Regional Representatives at a seminar in 1980, “Many challenges face all of us as we fellowship and teach the gospel to the cultural and minority groups living in our midst. . . . When special attention of some kind is not provided for these people, we lose them” (Church News, 11 October 1980, 4).

Despite periods of intense misgivings about foreign language congregations in the United States, LDS Church leaders have never completely eliminated them. During the 1990s the numbers have grown. In 1996 there were over four hundred congregations in the United States operating in a language other than English; two-thirds were Spanish-speaking.

How do ethnic members feel about the language wards and branches? As the Meraz example has already pointed out, reactions are mixed. Whatever the nationality, there are Mormons who want to worship with people who share language and culture and others who want to intermix with the larger American culture. Leaders also worry that ethnic congregations do not reach people like Esmeralda Meraz, the second generation. The history of two congregations—one Spanish-speaking and one Asian—in Provo, Utah, show some of the dilemmas.

SPANISH-SPEAKING CONGREGATIONS IN PROVO, UTAH

A Mexican branch was organized in Provo in 1960. Enoc Q. Flores, a Mexican American from the Mormon colonies in Mexico, came to Provo in 1964 after serving a mission. He remembered then there was a small Spanish branch in Provo with fewer than fifty members. He worked as the ward clerk and a counselor in the branch presidency. “I went through all the organizations. . . . Almost everything that you can imagine I had the opportunity of doing there because there were not a lot of us” (1991, 6–7).

Flores eventually left the branch to attend a geographical ward. In 1981 when the Spanish branch became a ward, he was asked to return as the second bishop. He recalled, “It was a great experience to see the development and the growth that the people had done. They were mostly new people because the ward was used as a spring board or as an entry into the Church. Once the people learned the language they would move into the different wards” (6–7).

In 1991 a Spanish-speaking ward met in a chapel at 800 North and 500 West in
Provo. The ward was so large that at a missionary farewell, the congregation overflowed from the chapel to the back of the cultural hall. Ricardo Diaz, a Mexican American BYU student, was attending the ward then. He explained, “The 33rd ward is the best ward that I’ve ever been to . . . because it is fully active.” The ward sponsored two or three activities a week. There were so many members that they were “just asking for jobs.” In addition to all the members, there were often visitors who came consistently but left their memberships in geographical wards (1991, 24).

George I. Monsivais, a Mexican American and a research analyst for the Research Division of the Correlation Department of the LDS Church, listed some reasons LDS Latino Americans preferred separate congregations: to hear the gospel in the language of their hearts; to participate in classes, meetings, and callings without embarrassment or concern over English language ability; for children to see their Spanish-speaking parents participate in classes and meetings and function in callings in their wards and stakes; to receive training in the language in which they are most comfortable; to have interviews conducted without the need of a translator; and to have Church-centered associations with individuals who share a common language and cultural heritage (1996, 15).

The Charles Redd Center for Western Studies at Brigham Young University collected 94 interviews with Spanish-speaking Mormons. Fifty-two lived in Provo and 34 were BYU students. Of the 79 cases where branch/ward membership could be determined, 55 percent attended ethnic congregations. Of those whose views could be determined, 67 percent (45 of 67) reported positive experiences. Only 5 said that they had negative feelings about ethnic congregations, 17 said they had mixed reactions. Those who expressed concerns complained that the members did not work on learning the predominate language and culture. While the members shared a common language, their culture was not always the same. A Native American from Peru and an immigrant from Spain, to cite two extreme examples, have very different cultures. While many interviewees enjoyed the mix, others complained about cultural misunderstandings (Embry 1997, 67, 77, 91–100).

**Asian Congregations in Provo, Utah**

During the 1970s, Church leaders organized a branch for all Asian international students at Brigham Young University. Since members spoke so many languages, sacrament meetings were in English with Sunday School classes in Mandarin, Cantonese, Korean, and Japanese. When Southeast Asian refugees started arriving in the late 1970s, the branch added a Vietnamese Sunday School class (Embry 1999, 78–81).

Unlike other BYU wards and branches, the Asian branch combined married and single students. It also did not require members to be BYU students, so Asians from throughout Utah Valley attended. In 1994, Honam Rhee, a Korean professor at BYU, served as bishop. While he believed that Koreans moving to the United States needed to “get into the mainstream” of American life, he felt that the ward provided an essential “bridge” in learning the American culture. It also helped some members who were not immigrants but who planned to return to their home country after completing their education (1994, 15).

Jennifer Chenn, a BYU student who grew up in the United States, remembered attending the combined branch. Coming from BYU single wards, she felt “It was so nice to be around a family ward again” (1994, 11–12). Ying Yuet (Jane) Liu, a BYU student from Hong Kong, also liked attending the combined Asian congregation. “This Asian ward
used to be a huge ward, a family ward with kids, old people, students, and any kind of people. We felt like we were a family.” She felt, however, that “it was just too big, so it was hard to get to know people” (1994, 12–13).

BYU student Helen Lai Fong Chan, who grew up in Singapore and joined the Church when she was in junior high school, was newly married and complained it was hard in the Asian ward to relate to couples with children while “the singles . . . were not interested in speaking to [those] who were just married” (1994, 9–10).

In 1995 Church leaders split the Provo Asian congregation into a ward and a BYU student branch. Both continued to combine Asian groups and operated much like the earlier congregation.

According to Arien Hamblin, who conducted interviews for the Redd Center, more than 120 attended the Asian singles branch every week; branch members were from Japan, Korea, Taiwan, Hong Kong, Thailand, and Singapore. About ten European American returned missionaries came regularly. Since most members attended Brigham Young University or Utah Valley State College, everyone spoke some English. Sacrament meetings were in that language.

Sunday School classes were in Japanese, Korean, Mandarin, Cantonese, and English. The Relief Society was in English, although women tended to sit with their own ethnic group. Ying Yuet (Jane) Liu enjoyed the new branch: “It is just like a college ward. I feel like we are really strong. We are really united” (1994, 12–13). Activities included a Chinese New Year’s celebration and other parties. Some interviewees, however, said they did not attend the parties very often because they spent all their out-of-class time studying.

Most members of the Asian ward came from Japan, Korea, Taiwan, and Hong Kong. A few members were from mainland China who were married BYU students, baptized in the United States, and some were European Americans who were married to Asians. Sacrament meetings held in English were sometimes turbulent with children running in the aisles during the talks. Sunday School classes were held in Cantonese, Mandarin, Korean, Japanese, and English. Most of the European Americans attended the English class. Native speakers—men and women—taught the rest of the classes.

The Relief Society met together except on the first Sunday of the month, when the women split into language groups. Most Japanese and Chinese women could speak English, but most Korean women could not. Jessica Kwan, a Korean who was adopted by an American family as a preteen and grew up in the United States, explained, “I’ve never liked the Asian wards.” As a single BYU student, she attended a student ward and reluctantly began attending the Provo Asian ward after she married a Korean. “What I didn’t like is it doesn’t seem like it is one. Everybody speaks all these different languages. Korean people get to know Koreans. The Japanese know Japanese, and the Chinese Chinese.” She taught Relief Society and felt frustrated by the hubbub. Some of the chatter was translation, but others “don’t even care about the person who is in the front” (1994, 18).

At the Deseret Language and Linguistic Society Symposium on 7 April 2000, I learned that the Asian ward had been dissolved and a Chinese ward for students, local residents, and anyone interested in the Chinese language had been formed. The ward still combined Cantonese and Mandarin. A combined Cambodian and Laotian branch had also been created. While the new congregations solved having so many languages represented, they each still served two different language groups.

**CONCLUSION**

These are just two ethnic examples in one city. Similar concerns can be found throughout the United States with almost all ethnic groups—even African
Americans who speak English. As I have studied ethnic congregations, I have found that my views have varied as much as the Church’s. Initially, I believed strongly in integration so that European Americans could learn about other cultures. But as I listened to the concerns of ethnic members, I realized the advantages of worshipping in one’s native language.

A Japanese professor here at BYU expressed some of the same concerns but came up with the opposite opinion. Masakuza Watabe was in the bishopric of a BYU ward that I attended when I started working at BYU in 1979. His English was so perfect, I did not guess he was a first generation immigrant. Watabe believed strongly in integrated wards and spoke out against language congregations in his interview. But he also discussed the struggles that he sometimes has communicating in English because it is not his native language (1994, 9-10).

The LDS Church, of course, is not alone in these concerns. The Catholic Church in Provo struggles on how to combine the Spanish- and English-speaking members. Because there is no easy answer, churches, like other American institutions, will go back and forth, trying to please everyone and in doing so always leaving out someone.

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Language Policy in Estonia: A Review

Raija Kemppainen

In Estonia, as well as in most nations, language policies are a part of the larger political and historical context. Estonia is a society that has had to quickly accommodate a dramatic change in its multicultural and multilingual status. During its fifty-year Soviet occupation, Estonia, formerly a rather homogeneous country, became a state with a large Russian-speaking minority. Since regaining independence in 1991, Estonia has been in the process of developing new language policies concerning the minority population. When comparing language policies in different countries, it is important to examine and understand them in the right context—namely from historical and political perspectives. Any analysis of national language policies has to be made in the light of their context, as Wren (1997) puts it:

Attempting to compare nations and their overt and covert language policies firstly requires a sense of both history and context—the political, social, and economic influences on a particular nation’s policy decisions. With their vastly different population and land size, history, indigenous peoples, ethnic mix, and immigration and education policies, any such comparison has to be approached cautiously. (24)

The focus of this paper will be on educational language policies in Estonia. However, we cannot discuss language-in-education policies without discussing general government policies—and we cannot discuss general language policies without placing these policies in historical and political contexts.

Estonian Language Policies from an Historical Perspective

In principle, it can be said that speakers of all languages have the same rights to use their languages in all situations (Skutnabb-Kangas 1995, 41), but in reality, language rights are a political issue, and different languages have different political rights. The language policies of a country do not dwell in a vacuum. They can reflect centuries-old history and traditions, or they can be a product of more recent events, some dramatic, as in most Eastern European countries. Estonia has had major changes during the twentieth century. Predictably, prevailing language policies have followed political trends.

Estonia, which had been under various foreign rules for over seven hundred years, and had been vulnerable to foreign influences, became independent in 1918. The Second World War interrupted progressive development in Estonia. The country was occupied first by the Soviet Union and then by Nazi Germany, and finally it became annexed to the Soviet Union in 1944. Estonians call all three events “occupations.” Annexation to the Soviet Union led to a significant Russian immigration into the country.

Before World War II, the Estonian population consisted of nearly 90% ethnic Estonians. In the most recent census (1989), the proportion of Estonians in the population was only 61.5% (963,300 people). Russians formed 30.5% (47,800 people) of the
population and Russian-speaking Ukrainians and Belarusians together comprised 4.9% (Raun 1997). The percentage of the ethnic Estonian population declined because of large emigrations to the West during the war and deportations to other parts of Russia. The Estonian ethnic population had decreased by one-fifth (200,000 people) by 1946 (Rannut 1991). However, the main change in population ratios is due to Russian immigration to Estonia. Some of this immigration was forced, for example, in the form of the Russian military presence. Most of the immigration, however, was voluntary, caused by higher standards of living in Estonia compared to most Russian republics. The turnover of the immigrants was large as well. Estonians revealed negative attitudes toward Russian immigration—partly as a result of the dramatic changes in the demographics of the country (Raun 1995). Another reason for these negative attitudes was a loss of self-determination under the “Russification policy,” a forced Russian influence in the country.

For the Estonians, making life work in the Soviet occupation meant adapting to a new ideology and learning a new language. During the Soviet era, there was no official language, but the Russian language became largely dominant. Under Russification there was an attempt to replace the Estonian Latin alphabet with the Cyrillic alphabet, an attempt that failed. Many functions in society became Russian because Estonia was under the direct subordination of Moscow. These functions included banking, statistics, militia, transport, and many fields in production (Rannut 1991). This realignment of social and economic functions resulted in a change in the language-use patterns of Estonians. According to the 1989 census, 34.6% of Estonians were fluent in Russian, whereas only 15% of the Russian population could speak Estonian fluently (Raun 1995). The figures are more accurate for the Russian-speaking population than for the Estonians. In practice, nearly every Estonian who was educated during the Soviet era—especially between the 1960s and 1980s—was competent in Russian. Russians were a numerical minority, but a minority with power in the higher strata of society.

Russian domination also intruded on everyday life. An Estonian approaching a Russian speaker in the Estonian language in a commercial or official setting could get a reply “Speak a human language” (Taagepera 1991, 124). During the Soviet period, the Estonian language was considered a language without a future.

During the Soviet era, “an extensive Russian-medium schools network was established” (Estonian Ministry of Education 1997, 20). The curricula in Russian schools included some practical Estonian, whereas the Estonian-based school had to teach Russian as a second native language. In the latter part of the 1970s, linguistic Russification intensified. A 1978 government decree emphasized the quality and quantity of Russian teaching in national public schools. Additional decrees a year later aimed at material support for Russian teaching (Rannut 1991). By the early 1980s, Russian was introduced to preschools. Until the mid-1970s, higher education was in Estonian, and theses and dissertations could be submitted in any language. However, in 1975, Moscow instituted a requirement that all theses must be in the Russian language (Raun 1995). Estonians were worried that their people, language, and culture would disappear. Some claim that Russification brought the Estonian language near to extinction (Taagepera 1991)—a perception that seems extreme in the light of how Estonians were able to retain their language. But, keeping in mind the small number of Estonians (less than one million), intensive Russification could have created just such a “worst scenario.”

Despite the strong domination of the Russian language in many societal
functions, including an increase of the Russian language in education, Estonian cultural life and education remained mainly Estonian (M. Hint, personal communication, 23 September 1999). Language itself was an important factor in preserving the Estonian culture. As Bliss (1996) states:

Language simultaneously embodied the expressive and impressive dimension of human activity; moreover, as the written and spoken "mother tongue" remained the principal means of communication between persons, the Estonian language represented the agency and purpose of the Estonian independence social drama. (74)

The democratic developments in Eastern Europe in the late 1980s strengthened the status of the Estonian language. In 1989, Estonia passed a new language law making Estonian the language of the republic. The Soviet-era, one-way bilingualism in Estonia, where the Estonians were required to learn Russian but the Russians were not required to learn Estonian, was reversed with the new law (Hint 1990). After the August 1991 coup in Moscow, Estonia declared its independence.

Changes in the Status of the Minority Population

The collapse of the Soviet Union changed the status of the ethnic groups in Estonia, as in other former Soviet republics. The language law of 1989 was a law of "limited bilingualism," aimed at equalizing the Estonian and Russian languages and guaranteeing services in either language (Hint 1990). The law required a knowledge of both Estonian and Russian languages in certain occupations. Since then all state employees have needed knowledge of the national language in order to deal with the public in their positions (Ozolins 1994). The 1989 language law was revised in 1995, removing the notion of a two-language policy and giving Russian the status of a minority language (Ozolins 2000).

Unlike other former Soviet republics, Latvia and Estonia did not grant citizenship automatically to all citizens in the country. Earlier, the Russians had been citizens of the vast Soviet Union, residing in any of its republics or areas. In the newly independent Estonia, hundreds of thousands of Russian speakers found themselves foreigners, without citizenship, and without their earlier language privileges. The Russians in Estonia had to define themselves anew. In 1993, a law was passed that set language requirements for the citizenship (Raun 1995). Citizenship requirements in Estonia include five years (originally two) of residency, declaration of no affiliation with the occupying Soviet forces, and knowledge of the national language (Smith et al. 1998). Predictably, the language issue created bitterness. The test (knowledge of about 2,000 Estonian words) is not perceived as demanding by everyone, but the idea that citizenship applicants are required to be able to speak the national language has been criticized (Vallens 1995). The Estonians felt that de-Sovietization would be complete when all the Russians go back to Russia (Smith et al. 1998).

By 1995, about 70,000 Russians or other non-Estonians had out-migrated (Raun 1997). This out-migration has recently declined. Excluding those who have received Estonian citizenship and over 100,000 Russians who took Russian citizenship, there remain about 330,000 Soviet-era immigrants in Estonia who have no citizenship but who are entitled to permanent residency permits and are classified as "resident aliens" (Smith et al. 1998). This alienation is also expressed in the attitudes of the Russian population. A survey from 1996 reveals that two-thirds of the Russian population in Estonia would prefer the Soviet period (Naulko, cited in Smith et al. 1998). During the period of Russian migration, Estonians were generally resentful. The Russians
themselves had more positive attitudes toward the Estonians than the Russians had toward the Russians (Anderson et al. 1996). However, it appears that the remaining Russian population is determined to stay in Estonia. A survey by a Moscow-based research group shows that 93% of the Russians in Estonia will stay in the country. Fifty-eight percent indicate their willingness to adapt to the local culture, and 72% identify themselves more with Estonia than with Russia (Brown 1997). These developments have meant that Estonia has had to acknowledge the presence of the Russian minority.

For an emerging nation, two factors are important in “social renewal”: language policy and education. Language is the symbol of national identity and is used in such vital domains as “politics, commerce, science, and mass media.” The task for education is to rebuild the “consciousness of unity and human dignity that colonialism and imperialism has sought to subvert” (de Beaugrande 1998, 275). Läänenems (1993) from the Estonian Education Center wrote that “the most important factor for the survival of a nation and its cultural heritage is the opportunity for all its people to receive an education in the native language, from preschool to the university” (77).

CURRENT EDUCATIONAL LANGUAGE POLICIES

The current language policies in Estonia have their roots in the past, in the legacy of the Soviet era and in the legislation of the early phase of the independence process. The struggle over the education of the Russian minority is characterized by political uncertainty (Brown 1997). Rüütel (1994), the former president of Estonia, has said that Estonians have “a continuous feeling of danger” (23). Many Estonians still believe that Russia will invade Estonia and that the loyalty of the Russian-speaking population could be questioned (Brown 1997). For Estonia, as for the other Baltic states, language policies are intended to create a loyal bilingual minority within the cultural autonomy and integrate them into society (Druviete 1997). For many in Estonia, language policies are a way of securing national survival for a population once threatened with becoming a minority in its own land (Ozolins 1994).

In 1989, the same year the language law was passed, a center for coordinating the teaching of the Estonian language to Russian children was founded (Rannut 1991). The Law of Cultural Autonomy was passed in 1993, which gives minority groups the right to establish and support educational institutions (Brown 1997; Geistlinger 1997). The law makes it possible to organize mother-tongue education. Minority schools or minority classes in Estonian schools are regulated by the Private Schools Law of 1993 and the University Law of 1995 (Geistlinger 1997).

In 1993, Estonia passed the Law on Basic and Upper-Secondary Schools, requiring the medium of instruction at the secondary level (grades 10–12) in state and municipal schools to be shifted from Russian to Estonian by the year 2000. The law for unifying the curricula in Russian and Estonian basic and middle schools was passed in 1996. This unification concerns only curricula, not linguistic issues. Regarding the Law on Basic and Upper-Secondary Schools of 1993, it was realized that the timetable for the shift from Russian to Estonian at the secondary level was unrealistic. An amendment to the law was passed in 1997 adjourning the transmission from Russian to Estonian until 2007.

This law was debated in Estonia, and there were differing opinions about the needed timetable, varying from 2000 to 2007. Those who supported the date of 2007 argued that students will have the necessary language skills to go on in Estonian secondary school by 2007 (Brown 1997). A bill to amend the Law on Basic and Upper-Secondary Schools is being considered by the Estonian Parliament.
According to the bill, the syllabus and instruction in non-Estonian schools must, by 2007, guarantee such proficiency in Estonian that permits students to continue education in Estonian after the basic school (Estonian education bill 2000).

The language shift at secondary level instruction is a highly political issue, and the Russian party has its own view of the law. The leader of the party has said that by 2007, Estonia will have two state languages, Estonian and Russian, and that he believes that the passed law will not be enacted (Brown 1997). Russian politicians claim that the aim of the act is to close Russian-speaking secondary schools by 2007. However, in accordance with the agreement on protection for national minorities, minorities must be given a chance to preserve and practice their culture and to maintain the knowledge of their minority language. Also in accordance with international practices, a school that functions in the official language has to offer 60% of the instruction in the official language, which, in Estonia's case allows 40% of its instruction in another language than Estonian. Even after the language shift in Estonian secondary education, the non-Estonian students will be permitted to learn their native language and ethnic culture (Estonian education bill 2000).

The Law on Basic and Upper-Secondary Schools, including the language shift, has prompted two kinds of reactions among the Russian-speaking population. First, at the political level, political leaders of the Russian fraction in the parliament have worked to abolish the law. They see the language policies as a part of the larger minority program that violates the rights of the Russian-speaking minority. The second kind of reaction comes from informal groups representing parents and teachers. They are interested in educational opportunities for their Russian-speaking children. Because higher education is mostly conducted in Estonian, parents want to secure the future for their children in education and in the labor market by having them learn Estonian (Brown 1997).

These informal groups have targeted Russian school administrators and teachers. With active involvement that is not tied to any high-level organization or to the government, the parents have been demanding changes in Russian schools. For example, some Russian schools in Tartu have requested that the Estonian language be introduced in the first grade instead of the third. This wish became a reality, according to a new law that will be enacted in the 2000–2001 school year. From then on, the Estonian language will be taught in all Russian schools starting with the first grade (M. Hint, personal communication, 18 October 1999). Other Russian-speaking parents have gone further and tried to enroll their young children in Estonian or bilingual schools (Brown 1997). "Many Russian parents prefer Estonian language schools for their children" (M. Hint, personal communication, 23 September 1999). Besides parental efforts, Estonian and Russian educators have found new ways to reinforce Estonian language and cultural programs in Russian schools (Brown 1997). Also, there is some evidence that general language attitudes among the Russian speakers are changing.

Ozolins (1994) states that resistance to the citizenship laws (including language requirements) among the Estonian Russian population has diminished. One explanation for the low resistance is the nature of the Russian population: many members of the Russian population can be called economic immigrants whose political mobilization is low (Smith 1998; Ozolins 2000). Even though there are contradictory research results on the Russian speakers' attitudes about learning Estonian (see Titma, Tuma, and Silver 1998), most research show that the Russian-speaking minority in Estonia perceive the knowledge of the Estonian language to be necessary for them. Laitin's study (1996) shows that 58.2% of
Russian respondents agree that all permanent residents should be fluent in Estonian. Nearly 96% agree that Estonian should be a required school subject. However, only 7.9% agree that assimilation brings the best future for the Russians in Estonia.

According to contemporary language policies, Russians still are able to maintain their Russian language but are required to learn Estonian as well. This approach is reminiscent of partial additive bilingualism. Additive bilingualism makes use of the resources of a child’s mother-tongue; its goal is to help people function in both language communities (Handscombe 1997). Additive bilingualism appears to be a realistic approach for the Russian-speaking students in Estonia because they will be able to use mother-tongue resources in early grades and end up learning Estonian, which will then allow them to function in Estonian society.

Monolingual Russian speakers function within an insecure social situation. Unemployment has touched Russian speakers more that Estonians (M. Hint, personal communication, 23 September 1999). According to Titma, Tuma, and Silver’s (1998) study, Russian speakers are economically disadvantaged in Estonia. These researchers refer to differences in occupations and they report the differences to be due to language ability, because many jobs demand a high proficiency in Estonian. The demands of higher education and labor-market access suggest that education in the national language should start early. Policies have to be balanced with many requirements; additionally, there are inconsistencies in the policy goals. Guaranteeing competency in the titular language is important; on the other hand, another language should be considered as a resource.

Estonian business life is oriented to the European Union (EU): over 50% of Estonian foreign trade is with European Union countries (Bungs 1998). English and Finnish have become languages of business life in Estonia. English has largely replaced Russian in Estonian-based schools. The Russian language is not a mandatory subject but an optional language, along with other foreign languages (M. Hint, personal communication, 18 October 1999). However, Russia remains the second largest single business partner (Bungs 1998). Maintaining proficiency in Russian, therefore, would be an additional resource for Estonia.

A few trends in adapting the language requirements seem to be evident in Estonia. As indicated earlier, there is some evidence that Russian speakers in Estonia perceive proficiency in the Estonian language to be important for them. Also, it appears that overall language attitudes of the older and younger Russian-speaking generations differ. The younger generation appears more willing to learn Estonian than the older generation, which is accustomed to managing in Estonian society in Russian (Laitin 1996; Smith 1998).

Another interesting phenomenon is Russian parents’ interest in securing their children’s knowledge of the Estonian language—for example, by enrolling their children in Estonian schools (Brown 1997; Druviete 1997). In addition, European integration and Estonia’s aspirations toward the European Union affect people’s language preferences. Laitin (1997) foresees that the English language will become significant both among Estonian and Russian speakers in Estonia.

In the future, the language repertoire of the Estonians might include Estonian and English; the language repertoire of the Russians might include Russian, Estonian, and English. However, very few Russian speakers appear to be willing to be assimilated into Estonian society. Russian-speaking politicians in Estonia want to make sure that Estonian—as well as English—are not replacing the Russian language. All in all, the linguistic situation is under constant
development in Estonia. As Ozolins (2000) puts it: “An essential aspect of the debate on language policy in the Baltic is that the linguistic situation there is dynamic and gradually changing” (43).

CONCLUSION

The examination of language policies in Estonia has to be put in both political and economic contexts. The linguistic trends that appear prevalent at the moment in Estonia—for example, the requirement of fluency in Estonian for all state employees who have contact with the general public—may be perceived as an expression of a post-colonial and nation-building phase in which the country is trying to secure the status of the titular language. The educational legislation concerning the language of instruction likewise emphasizes the status of the Estonian language. For example, the schools at the secondary level are transferring from a parallel two-language system to an all-Estonian system.

Educational opportunities and the demands of the labor market are strong motivators for language learning among the Russian speakers, and many Russian parents are supportive of their children learning Estonian. Even though there are political forces among the Russian speakers in Estonia that oppose both general and educational language laws, there are signs that the Russians are becoming more accepting of the language requirements. Russians are perceived as economic immigrants rather than as a politically active group. This nature of immigration may explain the interest of Russian speakers in the Estonian language. In addition, European integration increases interest in the English language among Estonian and Russian speakers. These international forces, along with domestic political and economic forces, make the language policy situation especially dynamic in Estonia.

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Laar leiab seaduses selgelt ülepingutatud kohti.


Mormon Scandinavian Immigrants’ Experiences among English-Speaking Settlers

Beth Radmall Olsen

Pleasant Grove, Utah, was settled in 1850, three years after the first Mormons entered the Salt Lake Valley. The first settlers were of early American stock. The next arrived from England, and by 1860 twenty-five percent of the population was English born, making the town largely Anglo-American. These two groups shared the same language, a kinship of Puritanism, and a traditional English background, and thus there was no defiant feeling between them. It was easy for the two groups to become one in the Gospel.

Rasmus and Ingerline Petersen came to the Utah Territory with the first LDS Scandinavian company to immigrate in 1852. With the coming of the U.S. (Johnston’s) Army in 1858, the Petersens left Salt Lake City, moving south to Pleasant Grove to escape the army’s expected revengeful entrance into the Salt Lake Valley. They decided to stay permanently in Pleasant Grove rather than return to the larger city. Iver Nicholas and Catherine Iverson had already settled in the town. By 1860, six Scandinavian families had settled in Pleasant Grove. Ten years later that number had increased to 35, and in another ten years, in 1880, it had reached 110. These families consisted of 236 people born in Denmark, 81 born in Sweden, 10 born in Norway, and 130 children born in Utah of Scandinavian parents. (All will be referred to as Scandinavian in this paper.) The 110 Scandinavian families amounted to almost one-third of the 351 families that populated the town (Bureau of the Census 1860). Because of the late migration of Scandinavians, many more settled in the town even into 1920. Pleasant Grove decidedly was an Anglo-Nordic mix and the greatest concentration per capita of Scandinavians in Utah County.

Why did so many Scandinavian Saints settle in Pleasant Grove when as a rule new Scandinavian immigrants were sent to Sanpete County for settlement? The meadow land below Pleasant Grove was a day’s wagon travel from Salt Lake City for Sanpete-bound immigrants. William Stevens’s inviting springs with its plentiful grass for animals made an ideal night’s camping on the west border of town. Pleasant Grove, built on a gentle slope, offered a view of the meadows and the incoming wagon trains. When settled Scandinavian Saints saw a wagon train camped for the night or when they heard of one, “it was customary . . . to go and visit them and see if perchance they might find some of their friends.” A Pleasant Grove settler from Sweden, Paul Anderson, came to one of the camps in October 1866. Anderson had just built himself a one-room dugout and spoke to the Warnick brothers, fellow countrymen who were strangers to him. “He [Anderson] asked us kindly to remain there,” as “this was as good a place as we would find in Sanpete.” The Warnicks stayed in Pleasant Grove, as did others who were given similar invitations. Whether acquaintances or strangers, countrymen were invited to share accommodations and permanently
settle. This also was true of many converted by missionaries who had already settled in Pleasant Grove. New converts often settled in the towns of relatives who had immigrated earlier, sometimes the relative or missionary being the only person known to them in all of Utah. Their affinity to countrymen, relatives, and their native languages bound them together and offered a haven for settlement (Warnick n.d., 3:28; Olsen 2001).

Virtually all of the early settlers of Pleasant Grove were Mormon. However, there appears to have been a definite ethnic division that separated the Scandinavian immigrants from the English-speaking immigrants. Although they had all accepted the same Gospel and all had traveled west to be associated together as a religious body, there remained a language division.

Church policies, family patterns, and old world traditions all perpetuated Scandinavian language and culture and slowed adjustment to the American culture. The Scandinavians even formed their own social community within the community.

The division came early. In 1869, when only a handful of Scandinavians lived in Pleasant Grove, separate meetings were held there for Scandinavians (Knud Swensen Collection). Andrew Jenson wrote,

> A number of Scandinavian Saints coming directly from Denmark, Sweden, and Norway located at Pleasant Grove, and it was found desirable that they should hold religious services in their own languages until they should acquire a sufficient knowledge of the English language to keep pace with the rest of the Saints. Consequently, Rasmus Petersen was appointed to preside over the Scandinavian meetings which, with the advice of the bishop, were held on Sunday afternoon. (Jenson n.d.)

Church authorities theorized that church services in their own language would deeply embed in them a knowledge of the Gospel. “Separate meetings were strictly auxiliary to regular congregations.” However, it is doubtful that many Scandinavians attended dual meetings, especially those who could not understand English. Many who came to America as adults never mastered the English language. Many of the children who had not yet mastered English found themselves seeking schoolmates and playmates of their own nationality. One wrote, “I started school at age seven and English-speaking children would not play with me for they could not understand my language. All my friends were other Scandinavian children” (Mulder 1957, 150–51; Eggertson n.d., 13).

Andrew Jenson, a resident of Pleasant Grove for the first sixteen years that he lived in the Utah Territory, reported, “As Scandinavian meetings were held regularly, Bro. Nilson organized a choir to sing in these meetings” (Jensen 1938). Their first rehearsal occurred on 11 December 1875. Most Scandinavians loved to sing and had melodic voices. The Scandinavian choir stayed active and performed until 1929. Before the century turned the Church had published two editions of a Danish hymnal for theirs and other Scandinavian congregations and choirs to use.

A separate choir sang in the English-speaking meetings. Before the one ward was divided in 1890, a history of the ward choir and a list of the choir members were written. There is neither mention of a Scandinavian participant nor one patronymically spelled surname on the list, although the population of the ward was one-third Scandinavian (Jenson n.d.).

The late arrival of the Scandinavian population forced most of them to settle on the outlying, less desirable land. The scattered condition of the farms and residences of the Scandinavian families necessitated long roads to travel in the winter to attend meetings. For this reason, during the winter of 1876,
MORMON SCANDINAVIAN IMMIGRANTS' EXPERIENCES AMONG ENGLISH-SPEAKING SETTLERS

Scandinavians were divided into three "districts" for their meetings. Those in Little Denmark—a section of small, closely set houses west of the business district—were mostly artisans and met together. The far north section met together, and the Scandinavians in the eastern part of town met in the third group. Each district met in individual houses every Wednesday night. "These meeting were, as a rule, well attended and the time profitably occupied in speaking, praying and singing." They soon outgrew the houses and again "met as one [Scandinavian] unit in general assembly" (Jenson 1938, 93–94).

During the four-year interim between Andrew Jenson's two Scandinavian missions (1873–1875; 1879–1881), he still lived in town, and he wrote that he attended approximately equal "ordinary meetings" and Scandinavian meetings, 170 each. Through that period, an equal number of English-speaking meetings and Scandinavian meetings were held. (Jenson 1938)

Written materials in their native languages prolonged adjustment to their new country's language. At the onset of Andrew Jenson's publication of Joseph Smith's history in the Danish language (the first book published in a foreign language in Utah and written in Pleasant Grove) Jenson reported,

On 1 February 1877, I attended a Scandinavian meeting in Pleasant Grove, I presented the plan of publishing Joseph Smith's History and invited the people to subscribe. Nearly all the brethren present gave me their names at once, the next evening in another Scandinavian meeting, I secured several more subscribers. In a third meeting held a few days later, I added more names to my list and I secured 70 subscribers in Pleasant Grove. This meant that nearly every family of Scandinavians signed as subscribers." (Jenson 1938, 96)

Devout Scandinavians were hungry for LDS literature in their own language.

In May 1877, Apostle Erastus Snow came to confer with Jenson on the History of Joseph Smith, and they both spoke in a Scandinavian meeting held in the church house. After Rasmus Peterson and Jenson had spoken, Bishop John Brown, the bishop of the Pleasant Grove Ward, asked if there were two Danish languages? He said that he could follow Peterson somewhat but could not understand a word of Jenson's talk. Andrew Jenson explained that Peterson had spoken broken Danish, mingled with English, while Jenson had spoken in pure Danish (Jenson 1938, 102). Perhaps this indicates that Bishop Brown had not attended Scandinavian meetings enough, if at all, to acquaint himself with the Danish language.

There were a number of newspapers and books published in Utah in the Danish language, to which Pleasant Grove Scandinavians heavily subscribed. The 1873 Danish-Norwegian Utah Posten, only a year in publication, was immediately followed by Utah Skandinav. In 1876 Anders W. Winberg began publishing the Bikuben (The Beehive). Winberg reported that on his first campaign to get subscriptions, he sold them to thirty of the ninety families in Pleasant Grove. The Young Peoples library of the town also held a continuous subscription. With his paper Winberg published Udklip sections, chapters that could be folded to form a book. From these the paper published Bibliotek, a library of selected books, most of which were religious and previously published Udklip sections. Every Scandinavian newspaper published after this adopted Udklip sections for its paper. Utah Posten began publication in 1885 and other later papers came and went, most published in the Danish Language. The Bikuben, considered the best, ran an unbroken fifty-nine years. The abundant publication of literature in their own languages went a long way in teaching them the gospel, making them feel more at home, and keeping them in the mainstream of American life, but it did nothing to hone
their English language skills (Mulder 1957, 260–264; Beijbon 1980; Ottesen 1980).

Scandinavians carried over into their social lives the security they felt in Danish-speaking religious meetings and reading literature in their own languages. In 1882, Andrew Jenson wrote,

I and my wife attended a number of pleasant little parties. It had been the custom for several years among the Scandinavians to arrange private family feasts. As a rule, 12 or 16 invited couples attended these. Usually a splendid meal was served after which the little company would engage in dancing and playing until midnight, when a light luncheon would be served prior to breaking up.” Jenson added that he and his wife attended many such feasts in the homes of their countrymen. He also wrote that the best food that could be offered was served on these occasions, and “a free and happy spirit and consistent intimacy added much to the enjoyment.” But after the Jensons had attended one event on Tuesday and another the following Thursday he wrote, “Felt tired having had too much of the same kind of enjoyment too quickly in succession, sometimes dancing until 2 A.M. (Jenson 1938, 128)

The Jensons attended the English-speaking New Year’s Eve party in the United Order Hall and complained that “considerable confusion and disorder destroyed the enjoyment.” Yet a few days later he wrote that they “attended a real good Scandinavian dance in the United Order Hall” (1938, 128).

The Scandinavians became famous in Pleasant Grove for their Grand Scandinavian Balls held in the most prestigious and newest dance halls. The last of the winter season balls was always held each year on Washington’s birthday. Tickets sold for fifty cents a couple and fifteen cents a single. Refreshments were traditional coffee and buns. These balls became so popular in town, the social barrier began to break down and the English-speakers began to attend in the forepart of the 1900s (American Fork Citizen 1915).

Annie Nelson Eggertson, a Danish child immigrant, wrote,

We were emigrants [sic] in Pleasant Grove, and were often made to feel it, but were not alone. It was really a little Danish colony when we got together. We soon began to set the pace for fine farming and for thrift in every way. The fine hospitality and social contact the Scandinavians had with each other drew the respect of the town folks to the extent that they began to edge their way into our circles. As we learned the language and went to school we began to be admitted into some of the town crowds; however, it took time before we [Danish immigrants] were permitted with the elite [English-speaking]. (Monson 1888)

Scandinavian Christmas Day programs and reunions became traditional, noted in 1914 as having gone on annually for forty years. In 1914 a newspaper item invited Scandinavians from all of the wards in the Utah and Alpine stakes, from Provo to Lehi, “Following their [Scandinavian] custom of years standing,” the Scandinavians of Pleasant Grove convened at 11 A.M. in the tabernacle each Christmas Day to worship in a traditional Scandinavian way. The following Christmas a similar notice appeared. It was noted that another Scandinavian reunion would be held the following January (American Fork Citizen 1914). It appears Scandinavians enjoyed meeting together often.

In 1882 Pleasant Grove Scandinavians formed an organization simply named Scandinavian Organization. A sleigh riding party, with Swedish bells musically jangling from their horses harnesses, was one winter activity they enjoyed together. A large group belonging to the Scandinavian Organization met annually to commemorate the “Midsommarfest” holiday, an Old World Swedish celebration that most Pleasant Grove Danish also celebrated. “Each June 24th they gathered in August Warnick’s Danish also celebrated. “Each June 24th they gathered in August Warnick’s orchard at 910 North 600 West and celebrated with refreshments, singing, dancing, and
general merry making as they had done in the Old Country. Here everyone met and visited, reminiscing of times and places in the past.” There were races for all ages and a rather lengthy program. “There was always a fifty-gallon barrel of lemonade which sold for five cents.” Homemade ice cream and pink popcorn balls sold for a nickel as well, with an occasional nickel in the middle to induce buying another. They did this for many years [into the beginning of the 1930s] until most of the immigrant generation had passed away” (Christiansen n.d.; Warnick Family n.d. 21-22).

In 1890 a new celebration began. In commemoration of the first Scandinavian proselyting that had begun in Denmark in 1850, a Church-wide Scandinavian Conference and Reunion became an annual affair. Probably because of the central location, the number of Scandinavians in the town, and the high interest in celebrations, the affair was often held in Pleasant Grove. Before the town had a local newspaper, the 1911 event was documented in a hand-written notation that reviewed the reunion held in Pleasant Grove park, where hundreds from the county and state gathered with the local Scandinavians and partook of “food galore.” Newspapers document the 1915, 1916, 1921, and 1929 events. Large crowds assembled from all over the western states for the two-day event. In 1915, seven hundred outsiders came to Pleasant Grove and along with three hundred local residents, they “taxed the tabernacle to its capacity,” and many were unable to find seats. In 1921, out-of-town visitors numbered over one thousand. They stayed at homes of local Scandinavians. During the celebration, activities consisted of three religious meetings and a grand concert given by the Pleasant Grove Scandinavian choir in the native tongues. The three national airs of Norway, Sweden, and Denmark were rendered in their several languages, “which created warmth and enthusiasm.” The Pilgrims Chorus and a

Thanksgiving anthem were always favorites. And the flags of each Scandinavian country decorated the building. Programs were printed in Danish, identifying with the majority ethnic language. In 1929, on August 10 and 11 this yearly celebration was again held in Pleasant Grove under the direction of the president of the Scandinavian Conference and Reunion, John A. Widtsoe.

Almost all of the Pleasant Grove Scandinavian gatherings also went on into the 1930s. A notice in the May 5, 1933 edition of the Pleasant Grove Review read, “A Scandinavian meeting will be held Sunday 7 May at 2 P.M. in the Stake Tabernacle. A chorus of 30 voices from Provo will render the music. Special speakers will also be present. The service will be given entirely in the Scandinavian languages.”

Scandinavians felt almost excluded from the political arena, considering the large population of ethnic people in town, and those of Pleasant Grove formed their own Scandinavian “political club” in 1891. As a group they were disgruntled with their lack of representation among the elected officials. Only three of them to date had been elected to local public offices, although Scandinavians had considerably populated the town for some thirty-plus years. This small number did not reflect the one-third Scandinavian population. One of those three men, Andrew Jenson, served less than three months before he left on a mission in 1879. On the eve of municipal elections, Monday 2 February 1891, the club invited Jenson back to speak at a political rally and to participate in a political campaign. They drove about town in sleighs, campaigning, letting their wants be known to townspeople. That year they succeeded in electing two men to positions on the city council (Jenson 1938, 107).

Native foods, pleasing to the palates of Scandinavians, who tenaciously clung to them, seemed unacceptable to the
English-speaking settlers. These often brought ridicule and condemnation. Rohdin Christiansen, a Utah-born son of Danish parents, recalled some of the differences between the two cultures.

A great favorite of the Scandies was filibunk," he wrote, "whole milk allowed to sour into a firm clabber. It was eaten with a little sugar or cinnamon. Some folks thought sour milk was crude fare for humans, and occasionally said so, but the Scandies liked their old familiar foods and cared not much what people might think. It is a matter of some wry satisfaction to a few of us, who in our early youth were scoffed at because we ate clabbermilk, to see so many paying fancy prices for yogurt.

He also wrote of other foods that seemed repulsive to unfamiliar senses. "Festive occasions called for lutfisk, a dry, salted cod fish that was distinctly malodorous, which is to say it smelled to high heaven, and boiling in a pot brought out the worst in it" (Christiansen n.d., 3). In the fall when a pig was slaughtered there was sure to be such delicacies as blood pudding, headcheese made from the brains and other head meat, faggots, spaaga meat, and Danish sausage stuffed into the intestines of the animal (through a cow's horn) and roasted in underground pits for long periods (Petersen n.d.; Freeman n.d.; Author's memories of her mother's cooking). These foods, reminiscent of the Scandinavian people's frugal backgrounds, were thought of as unclean by their non-Scandinavian neighbors.

Annie Eggertson wrote, "The Danes brought with them the customs of having good milk, butter, and cheese, homemade beer, and coffee every morning, and sometimes in the afternoon. Mother and Father could not see the Gospel in a strictly orthodox way, i.e., their old custom of drinking coffee and playing cards did not seem a moral issue. Consequently they did not obey these teachings," for which they were severely criticized. But "they would draw the line when it came to drinking the rotten [American] cider, as they called it, or getting drunk as many did. They abhorred the saloon where so many young men spent their evenings" (n.d, 13).

Different ideas of the quality of food which humans should consume brought on an argument that was neither soon forgotten nor forgiven. In fact it deeply scarred the relationship between the town's Anglo and Nordic communities. When Jens Jenson, the brother of Andrew, found that his ox had bloated from eating too much green lucern and apparently would die, he killed it and sold the fresh meat to several of the townspeople, telling them that the meat came from a bloated ox. Evidently, he neglected to tell one prominent English-speaking citizen who purchased the meat. After hearing from another source that the cow was bloated before being killed, the prominent citizen brought suit against Jens. The citizen was described by Andrew Jensen as an "American filled with bigotry and national hatred." He wrote, the "unrighteous judge," a neighbor of the bigoted citizen, fined Jens "in a most unrighteous and scandalous manner" and charged him court costs. Andrew appealed the case on behalf of his brother by having thirty people declare that the meat was good. Andrew commented, "some Americans have certain notions in regard to certain food which borders on ridiculousness." The prominent American citizen continued the case, and the argument escalated, splitting the town into two factions, the Scandinavians and a few "responsible citizens" on one side and most of the English-speaking on the other. "The whole town seemed to be in a ferment and very bitter feelings were manifest." Bishop Brown and several other leading men "feared for the consequences of the ever increasing strife" and called a few of the dissatisfied men together, but the man who brought the suit refused to come. The meeting soothed over the
problem by retracting the fine and most of the court costs. Bishop Brown "spoke in [Church] meeting unwisely in regards to the meat case. His purpose was to cast oil on troubled waters but he made matters worse." This dramatic occurrence left deep scars on ethnic relationships in the town for many years (Pleasant Grove 1869-1902).

The Reorganized Church established a branch in Pleasant Grove, and the Elders found a fruitful field among Scandinavians. Jenson's brother Niels left the LDS Church and became a leader in this Josephite branch. Perhaps the meat case had a bearing on other Scandinavians of the town who apostatized (Shipley n.d., 75-77).

A situation occurred where rapid interpretation from English to Danish or Swedish would have greatly reduced friction in the united order, which was entered into by many of the brethren of Pleasant Grove. Fourteen "Rules of Conduct" had to be read and agreed to before baptism into the order, but it was nearly one and one-half years after the order began before a Danish translation was made (United Order 1876-1892). John A. Adams, who authored "An Economic History of the Pleasant Grove United Order," suggests, "The lack of understanding due to the inability to openly communicate added strain on relationships among those participating in the Order. The language barrier caused inconveniences, but was more symptomatic of the deeply-rooted nationalistic problem. Despite the common beliefs and union of the Gospel of Christ, divisions existed among the people. The newly arriving immigrants, though welcomed and provided for, were often looked upon as being 'inferior' to their established counterparts." Adams conceded that "the Scandinavians were by no means a docile and submissive faction in the community" (n.d.). They went their own way, most being grateful for their new religion and country.

A traveling newspaper correspondent noted the spirit of the people when he wrote of the Scandinavians in Pleasant Grove in the November 15, 1878 edition of the Deseret Evening News.

When they came here, unable to speak a word of English they were without means, even being indebted for the money required to emigrate. Now, through industry and economy, they are so far independent that they owe no man a dollar, they have peaceful, comfortable homes, some of them even have large fruitful fields. If their thrift were emulated by all who have equally good or better opportunities, the cry of hard time might well cease in this territory. (Fugal n.d., 1)

Their frugality had gained them much, including respect from some. Others often made jest of their ways, especially the traditional dress of the Scandinavian immigrants, some of whom clung to their old frugal ways well past the century's turn.

Their manor of dress set them apart as well as their language. Long after the early arrivals had had time to get settled and earn means to purchase ready-made clothing, the frugal late-arriving Scandinavians were cording raw wool and weaving their own materials. They were fond of "homespun." It stood for quality in their eyes. Like C. C. A. Christiansen stated, "Grandfather's shirt was always white, it was made of the best linen spun at home by grandmother's devout hands. It was paid for with an honest kiss, and lasted many years, not like the cheap dyed cloth one bought from modern merchants and tailors who were seldom honest" (Mulder 1957, 273). Hannah Carlson Fugal, a Swedish immigrant of 1868, dyed wool, spun thread, wove material for herself and others, and sewed the family's clothing. Because her Utah-born son, Chris, was dressed differently than the other children, his school teacher always referred to him as her "homespun boy" (Fugal n.d., 1). Marie Poulson, another early immigrant
in town, until her death in 1919, sheared her own sheep and spun her wool. Her friend in Pleasant Grove's Little Denmark wove it into cloth for her.

Concerning other aspects of dress, wooden shoes were customary dress in their native lands, and naturally they brought them to Utah with them. Many Scandinavians came from rural settings in their countries and wore wooden clogs to work in the fields. Jeppa Nelson, while immigrating in 1873, was devastated when his new wooden shoes washed overboard in an ocean storm. When he arrived in Pleasant Grove he recognized a ready market for wooden shoes. He began carving and selling them to his Scandinavian neighbors. Wooden shoes served farmers as outside shoes only. A bench usually stood by the back door of Scandinavian houses, where they exchanged wooden clogs for indoor leather shoes, leaving the garden dirt behind. This kept their homes clean and neat as well as their leather shoes (Fugal n.d., 1).

Annie Eggertson wrote, “I always wore wooden shoes to school as did many others, and the boys had a great sport slipping our shoes off and running away with them.” Further commenting on her inferior feelings over her backward dress, Annie wrote, “I picked ground cherries with other girls, dried them, and sold them for good money. In fact these extra things we did gave us some of the nice things [clothing] we otherwise would not have had, and helped take away some of the stings we had had to feel for being Danish emigrants” (n.d., 21). Another note along frugal dress was that of Christina Warnick, who came to Utah from Sweden in 1866. She had a very good woolen petticoat when she arrived. During the hard years her husband’s coat gave out. “She took her petticoat and fashioned a coat for him and he was very pleased to get it and wore it as long as there was a thread left of it. It was hand woven and lasted for years” (n.d.).

Missionaries sent to native lands and newly immigrated converts added to the retention of Old World language and culture. These Church patterns prolonged the Americanization of the Scandinavians and even indoctrinated the second generation in old country ways. The Church policy of sending Scandinavian immigrants and first generation sons back to their native lands to proselyte among their relatives and countrymen kept new immigrants entering Pleasant Grove, thus strengthening the ties between the Old Country languages and ways and the American-born Scandinavians of the next generations. During the two to three years the missionaries served in Scandinavian countries their language skills were sharpened. They sought out relatives to convert and helped them and numerous others to emigrate. Immigrant men and sons were sent back to Scandinavian countries, and at least three served two to three missions. The constant association of new settlers had an effect on the next generation as well. Rhodin Christiansen, a second generation Scandinavian himself, wrote, “Surrounded as they were by so many from the Old Country, the second generation grew up more or less bilingual, and in some respects were almost as Scandinavian as their parents. Even after they were grown they might meet on the street and exchange a few pleasantries in Danish or Swedish, or perhaps a mixture of the two. Often one parent was Swedish the other Danish” (Christiansen n.d., 4).

Jens Monson, an 1871 Swedish convert, after serving a local mission, immigrated in 1875 at age 25. He worked to bring another brother to Utah. Together the brothers worked to bring the entire family of seven children and their widowed mother to Zion. All of the family members lived with Jens until they could get themselves established. Six of the seven, including Jens, settled in Pleasant Grove. Jens continued to sponsor family members and new converts into the
1920s, bringing many of those converted by his two returning missionary brothers and two of his sons and a nephew. Although he was far from rich, thirty-two converts were recipients of his meager means and his hospitality for many months, and sometimes years, until they became settled. In turn the language and culture was reintroduced into his home many times over. His daughter, Louisa, taught the new arrivals English. Through her almost constant association with native Swedish and Danish immigrants and with her own mother and grandmother who immigrated as adults and never leaned to speak fluent English, Louisa became bilingual. She was born in Pleasant Grove in 1889 (Olsen 2001).

It appears that a variety of factors contributed to the slow assimilation of Scandinavian-born Church members into the Anglo society of Pleasant Grove. Most prominent was their culture and language, and the nationalistic feelings on the part of both groups. John A. Widtsoe, while writing of his own mother's experiences as an adult immigrant of 1883, also summarized much of the Scandinavian experience in Pleasant Grove. He wrote that Anna Karine Gaarden Widtsoe, his mother, had come to America as a mature woman of thirty-four and found it difficult to learn English. She "always felt an inward embarrassment when she spoke in English," so she freely used her native language. This situation was not improved by her return to her country on a four-year mission. Because of her broken English, she "felt handicapped in her progress among her chosen people." Therefore she was "led more than ever to use her energies among the people of her own national origin." With them she felt comfortable. Widtsoe concluded, "Language is one of the most serious barriers among men. Failure to understand one another leads to misunderstanding and suspicion. Those who speak the dominant language of a country often fail to appreciate the virtues of those of foreign extraction who cannot acquire the native accent or the ready use of language." He further wrote, "This was very evident in early Utah, peopled by Mormon converts from many foreign lands. In fact the native American stock were not free from unkindness due to ignorance in their views and treatment of immigrants" (Widtsoe 1942, 122). Widtsoe's writings rang true for Pleasant Grove Scandinavians living in the mixed society of that town.

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Communicative Pronunciation Teaching and Its Effects on Learners

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In the last decade or so, the teaching of pronunciation has been enjoying a resurgence among TESOL practitioners (Anderson-Hsieh 1989; Chun 1991; Jones 1997; Morley 1991; Morley 1998a; Murphy 1991; Pennington 1998). Nevertheless, over the years, the value of direct pronunciation instruction has also been questioned—especially by those desiring empirical evidence of actual student improvement (de Bot 1980; Leather 1983; Lee, McCune, and Patton 1970; Madden 1983; Purcell and Suter 1980; Ramirez and Stromquist 1979; Suter 1976; Taylor 1991; Yule and Macdonald 1995). While scholars have come to the defense of pronunciation instruction (Pennington 1998), a stronger base of empirical data is still needed. Citing Pennington and Richards’s (1986) review of research on pronunciation instruction, Derwing, Munro, and Wiebe lament, “very little evidence exists as to whether one focus of pronunciation instruction is superior to another or even whether any form of instruction is beneficial at all” (1998, 394).

Decades ago, when discussing pronunciation training, Lee, McCune, and Patton challenged, “we are professionally obligated either to demonstrate its effectiveness or take it off the market” (1970, 122). Madden later echoed, “If specialized training in pronunciation produces no perceptible results, it may be that ESL teachers should turn their attention elsewhere” (1983, 69). More recently, Morley reaffirmed the importance of fundamental rationale “questions of whether pronunciation should (or can) be taught and, if so, what should be taught and how” (1991, 481).

In their review of pronunciation research studies, Pennington and Richards noted that “differences in results” depended on, among other factors, “the type of training which was provided” (1986, 217). For instance, students in Madden’s study, which found no significant differences in pronunciation improvement between adult ESL learners who received pronunciation training and those who did not, experienced modeling by the instructor, auditory discrimination exercises, and pronunciation drills” (1983, 73). Morley (1991, 481) later called for “more controlled studies of changes in learner pronunciation patterns as the result of specific instructional procedures.” Introducing their own research on the effects of different types of instruction, Macdonald, Yule, and Powers (1994, 77) asserted that “remarkably little is known about the relative benefits of . . . various procedures in terms of perceived improvement.” In recent years, however, researchers (Derwing, Munro, and Wiebe 1998; Macdonald, Yule, and Powers 1994; Yule and Macdonald 1995) have concluded that the type of pronunciation instruction strongly influences the kinds of improvement that can be expected.

Following this line of investigation, we decided to study the effects of a particular set of communicative pronunciation teaching activities. This paper describes our research and explains the results of the data analysis. These results are grouped into two
categories: (1) actual linguistic performance improvements achieved by students and (2) changes in their attitudes toward pronunciation instruction.

Our research design was loosely patterned after Derwing, Munro, and Wiebe's (1998) study. We, however, added an extra rating task to the two they used. We also conducted a more detailed analysis of changes in students' performance and attitudes.

**METHOD AND PROCEDURES**

**Participants**

The fourteen students (six males, eight females) in the primary group were enrolled in an English Language Center (ELC) level 5/6 listening-speaking class at Brigham Young University. They received communicative pronunciation instruction from one teacher and more general, speech-oriented instruction from a second instructor. A second, smaller comparison group of eight ELC students (five males, three females) were in a parallel level 5/6 listening-speaking class taught by a third teacher.

These ELC students came from a variety of native-language backgrounds. The fourteen students in the primary group consisted of native speakers of Spanish (4), Korean (4), Portuguese (2), Japanese (2), Russian (1), and Chinese (1). The eight students in the comparison group were native speakers of Spanish (3), Portuguese (2), Japanese (1), Korean (1), and Russian (1).

**Instructional Treatment**

As noted above, the actual instruction provided to these ESL students varied according to the class in which they were enrolled.

*Communicative Pronunciation Teaching (CPT) Class*

The primary group of ELC students was enrolled in a class that was team taught by two teachers Monday through Thursday. Twice a week, one of these teachers focused on general listening and speaking skills. On the other days, the second teacher focused on pronunciation improvement and used a story-based, communicative pronunciation teaching approach characterized by the following ten features:

1. Correct *communication* depends on correct pronunciation (Bowen 1972; Celce-Murcia 1987; Jones 1997; Joo 1973; Morley 1991; Morley 1998b; Pennington and Richards 1986; Wong 1985). Further, a mistake in pronunciation may lead to miscommunication and frustration. Also, the communicative value of suprasegmentals is recognized.

2. Practice is *meaningful* (Bowen 1972; Bowen 1975; Celce-Murcia 1987; Celce-Murcia and Goodwin 1991; Jones 1997; Joo 1973; Murphy 1991, 60; Pennington and Richards 1986). As they communicate, students understand the meaning of what they are saying and are aware of it as they practice pronunciation. In other words, mindless parroting of the teacher or the use of nonsense words is avoided.

3. Students often practice pronunciation in *pairs or small groups* (Henrichsen 1978 and 1980; Murphy 1991) as they do in many communicative language activities. This arrangement contrasts with the classic pattern of the entire class repeating after the teacher.

4. *Diagnosis* of student difficulties precedes instruction (Joo 1973; Morley 1998b; Henrichsen et al. 2000). Simply predicting learners' problems based on their first language is insufficient (Eckman 1991; Flege 1980; Morley 1991). The initial assessment of each language learner's speech becomes an individualized curriculum that guides learners in selecting units to work on throughout the course.

5. Raising students' consciousness of their pronunciation difficulties is an
important step that leads to self-responsibility, self-monitoring, and self-correction. Many researchers and teachers (Acton 1984; Crawford 1987; Leather 1983; Morley 1991; Scarcella and Oxford 1994; Yule, Hoffman, and Damico 1987; Wong 1985) have emphasized the importance of these processes, which allow students to continue working on their pronunciation outside of class.

6. Pronunciation instruction and practice target specific sound features that learners find difficult according to the initial diagnosis (Henrichsen et al. 2000; Joo 1973; Morley 1998b).

7. The teacher assumes the role of speech/pronunciation coach (Morley 1991; Morley 1998b) and abandons the traditional director role.

8. Practice progresses through imitative, rehearsed, and extemporaneous stages (Morley 1991; Pennington and Richards 1986). Students receive varied practice opportunities ranging from very controlled listen-and-repeat activities to independent communication.

9. Presentation and practice activities are varied and enjoyable for students. That means using a healthy variety of active learning activities, and, perhaps, using some humor.

10. Student attention and interest is sustained over the length of time needed for real improvement to take place (Acton 1984; Murphy 1991; Parish 1977).

All these characteristics are embodied in the textbook Pronunciation Matters (Henrichsen et al. 2000a), which was used on Tuesdays and Thursdays in the communicative pronunciation teaching class (CPT), the “treatment group.”

Comparison Group

The teacher of the comparison group (another level 5/6 listening-speaking class) did not focus on pronunciation improvement. Instead, on all four days each week, the class emphasized listening and speaking skills in general. The teacher and students focused on developing syntactic and lexical accuracy in speech. Students gave speeches, pair presentations, and group presentations related to units with topics like humor, hobbies, and the twentieth century in America. In this class, major emphasis was placed on preparing for a storytelling competition at the end of the semester. Throughout the entire semester, the only focus on pronunciation per se took the form of occasional tongue-twister warm-ups and a few occasions where the class members read poetry aloud for stress and rhythm practice.

DATA COLLECTION AND ANALYSIS

Actual Linguistic Performance

The assessment of changes in ESL students’ pronunciation involved three phases: (1) the recording of ESL students’ speech samples at the beginning and ending of the semester, (2) the rating of those samples by a group of graduate-student raters, and (3) the analysis of those ratings.

Phase 1 — Recording of Speech Samples

The preliminary phase of this research, the recording of speech samples, was carried out as part of the normal class activities in two ELC classes in winter semester (January through April) of 1999. In order to diagnose students’ pronunciation difficulties and determine the areas where class instruction should be focused, students’ speech was recorded on audio tapes in early January. At the end of the semester (in April), as part of their course final examination, the students’ speech was recorded again in order to ascertain the areas where their pronunciation had improved.

For these recordings, students engaged in extemporaneous storytelling based on pictures (Holt 1982), as well as two reading-aloud activities. The

In the winter of 2000, three native speakers of English (two males, one female) volunteered to record the same passages that had been recorded by the ESL learners. The purpose of these native-speaker recordings was to serve as a point of comparison for the raters in the second phase of the research process. All these participants signed a written consent form to have their speech recorded and used in the future for educational research purposes. These normal diagnostic, instructional, and evaluative activities presented no known risks or hazards to the participants. Furthermore, the recordings provided the ELC students with the benefits of a more accurate diagnosis of their pronunciation difficulties and, therefore, more appropriately targeted instruction. The final recording was used for determining improvements in students' speaking performance and their course grades. A detailed research proposal and the appropriate forms were submitted to the English Language Center’s Human Subjects Review Board and approved.

**Phase 2 — Rating of Speech Samples**

The second phase of this research involved the rating of the speech samples recorded in phase 1. Before being rated, the samples of the audio recordings were digitized, randomized, and put on compact disks. The order of the speakers and the order of the recording time—whether at the beginning or the end of the course—were both randomized.

Twelve volunteer graduate students at BYU carried out the rating activities during winter semester 2000. Some of the raters were graduate students in TESOL and had taken a course in English phonology; the others were students pursuing degrees in a variety of disciplines. Most of the raters had some experience learning a foreign language, although this was not a prerequisite for participation.

The pronunciation rating activity required the raters to listen to recorded samples of the nonnative and native speakers' speech and rate them on a nine-point scale. There were 144 samples, and the entire activity took about three hours. The samples themselves were presented in a random order, and the identities of the speakers were not revealed. During the session, participants listened to one sample and rated it before listening to the next one. The native-speaker recordings were cycled in occasionally to reorient raters to a native-speaker baseline standard. A complete set of instructions and procedures for these rating activities, as well as samples of the rating instruments themselves, was provided.

**Phase 3 — Statistical Analysis of Ratings**

After the raters had listened to all the samples, their responses on the nine-point rating scale were coded. The encoded data were then analyzed in several ways. Mean ratings and standard deviations for each speaker were calculated for each of the six to nine pronunciation sub-skills on each of the three speaking tasks (sentence reading, storytelling, and passage reading). Course-initial and course-final means were compared using a multivariate analysis of variance in a General Linear Model. This analysis of these audio data revealed the kinds and degrees of performance improvements in pronunciation sub-skills achieved by learners.

**ESL Learners' Attitudes toward Pronunciation**

Data from questionnaires administered at the beginning of the course and from the course evaluation conducted at its conclusion were examined qualitative-
for evidence of students' attitudes toward pronunciation instruction. General attitudinal patterns emerged during this analysis and were duly noted.

FINDINGS

Actual Linguistic Performance

After the rating process was completed, the data were encoded and analyzed. First, four inter-rater reliability checks were run—one for each task and one for all the tasks combined. In every case, the correlations among raters were high, generally in the .60 and .70 range, with a few above .80. All the correlation coefficients were significant at the 99% confidence level. These results indicated a satisfactory degree of inter-rater reliability.

Next, since the previous step had established that the judges were all rating in a similar manner, an overall mean rater score for each sample was created. This step greatly reduced the mass of data and simplified the rest of the analysis process. These mean rater scores were used in all subsequent analyses.

The next step was to determine if there were statistically significant differences in the ratings of the samples (a) recorded at the two different times (January and April) and (b) spoken by members of the three speaker groups (the ESL Listening/Speaking (L/S) class that received communicative pronunciation instruction, the ESL L/S class that did not receive communicative pronunciation instruction, and the native speakers) for each of the three tasks—sentence reading, storytelling, and passage reading. To determine this, a General Linear Model was run for each of the tasks using time, group, and subskill as the independent variables. Table 1 shows the F values and probability level for each of these variables. After finding there were significant differences according to these variables, individual means in each of the areas were compared.

Sentence Reading

The General Linear Model analysis determined that there were significant differences in the sentence-reading data for all three variables—time, group, and subskill. The time variable compared performances in January and April, and the difference was significant at the $p < .05$ level. On this same task, differences according to group (with three levels) and subskill (with six levels) were significant at an even higher level ($p < .01$).

A post hoc analysis of the means and standard deviations in each of the categories (see results in Table 2) reveals pronunciation improvements for the group that received communicative pronunciation teaching. From January to April, the average accentedness rating of students in the CPT group declined from 6.36 to 6.15 (or .21 points on the nine-point scale) in subskill area 1, the "Overall Comprehensibility and Accentedness" category. (A decrease in score means that accentedness went down or, in other words, that pronunciation improved). In contrast, in this same category, the group that did not receive communicative pronunciation

<table>
<thead>
<tr>
<th>Table 1. Results of General Linear Model</th>
</tr>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Sentence Reading</strong></td>
</tr>
<tr>
<td>F value</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>Group</td>
</tr>
<tr>
<td>Subskill</td>
</tr>
<tr>
<td><strong>Storytelling</strong></td>
</tr>
<tr>
<td>F value</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>Group</td>
</tr>
<tr>
<td>Subskill</td>
</tr>
<tr>
<td><strong>Passage Reading</strong></td>
</tr>
<tr>
<td>F value</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>Time</td>
</tr>
<tr>
<td>Group</td>
</tr>
<tr>
<td>Subskill</td>
</tr>
</tbody>
</table>
Table 2. Sentence Reading Accentedness Rating

<table>
<thead>
<tr>
<th>Subskills</th>
<th>Times</th>
<th>Groups</th>
<th>1. L/S class with CPT</th>
<th>2. L/S class without CPT</th>
<th>3. Native English Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1. L/S class with CPT (N=14)</td>
<td>2. L/S class without CPT (N=8)</td>
<td>3. Native English Speakers (N=3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
</tr>
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<td>----------------------------</td>
<td>-------------</td>
<td>------</td>
<td>------</td>
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<td>------</td>
</tr>
<tr>
<td>1. Overall comprehensibility and accentedness</td>
<td>January</td>
<td>6.36</td>
<td>0.51</td>
<td>5.19</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>6.15</td>
<td>1.00</td>
<td>5.17</td>
<td>0.54</td>
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<td>Difference</td>
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<td></td>
<td>0.02</td>
<td></td>
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<tr>
<td>2. Fluency in general</td>
<td>January</td>
<td>6.26</td>
<td>0.77</td>
<td>5.13</td>
<td>0.75</td>
</tr>
<tr>
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<td>1.12</td>
<td>5.10</td>
<td>0.60</td>
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<td>Difference</td>
<td>0.21</td>
<td></td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>3. Vowel sounds</td>
<td>January</td>
<td>6.45</td>
<td>0.44</td>
<td>5.84</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>6.31</td>
<td>0.78</td>
<td>5.51</td>
<td>0.35</td>
</tr>
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<td></td>
<td>Difference</td>
<td>0.14</td>
<td></td>
<td>0.33</td>
<td></td>
</tr>
<tr>
<td>4. Consonant sounds</td>
<td>January</td>
<td>6.63</td>
<td>0.61</td>
<td>5.57</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>6.49</td>
<td>0.72</td>
<td>5.74</td>
<td>0.71</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.14</td>
<td></td>
<td>-0.17</td>
<td></td>
</tr>
<tr>
<td>5. Consonant clusters</td>
<td>January</td>
<td>6.85</td>
<td>0.65</td>
<td>5.91</td>
<td>0.92</td>
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<tr>
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<td>April</td>
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<td>0.92</td>
<td>5.76</td>
<td>0.62</td>
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<td></td>
<td>Difference</td>
<td>0.29</td>
<td></td>
<td>0.15</td>
<td></td>
</tr>
<tr>
<td>6. Stress and intonation</td>
<td>January</td>
<td>6.44</td>
<td>0.56</td>
<td>5.54</td>
<td>0.45</td>
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<td></td>
<td>April</td>
<td>6.09</td>
<td>0.84</td>
<td>5.25</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.35</td>
<td></td>
<td>0.29</td>
<td></td>
</tr>
<tr>
<td>Time 1 – Time 2: Mean difference</td>
<td>0.22</td>
<td></td>
<td>0.11</td>
<td></td>
<td>0.00</td>
</tr>
</tbody>
</table>

pronunciation training experienced a change of only .02 points, indicating that there was no real change. Similar patterns occurred in most of the other subskill categories, although there were exceptions to this trend.

The mean improvement (taking all the subskill scores together) for the CPT group was .22 points. For those who did not receive pronunciation instruction, the mean difference was half as much, .11 points. As anticipated, there was no difference in the native speakers' ratings from Time 1 to Time 2.

The earlier General Linear Model indicated there were significant changes in pronunciation over time. The great majority of those significant differences occurred in the class that received communicative pronunciation instruction, and all those changes were positive. The small degree of improvement can be attributed to two factors: (1) the treatment group received communicative pronunciation teaching only two days a week for only one semester and (2) pronunciation improvement is a long-term process. In other words, dramatic changes do not happen quickly.

Storytelling

For the storytelling task, a somewhat different picture emerges from the statistical analysis. According to the General Linear Model statistics, the differences between January and April scores were not significant. The group and subskill variables, however, were still significant,
Table 3. Storytelling Accentedness Rating

<table>
<thead>
<tr>
<th>Subskills</th>
<th>Times</th>
<th>Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1. L/S class with CPT N=14</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2. L/S class without CPT N=8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3. Native English Speakers N=3</td>
</tr>
<tr>
<td></td>
<td>Mean</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>1. Overall comprehensibility and accentedness</td>
<td>January</td>
<td>5.86 1.17</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.85 0.92</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.01</td>
</tr>
<tr>
<td>2. Fluency in general</td>
<td>January</td>
<td>5.68 1.23</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.71 0.99</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>-0.03</td>
</tr>
<tr>
<td>3. Vowel sounds</td>
<td>January</td>
<td>5.80 0.85</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.73 0.66</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.07</td>
</tr>
<tr>
<td>4. Consonant sounds</td>
<td>January</td>
<td>5.83 0.93</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.95 0.75</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>-0.12</td>
</tr>
<tr>
<td>5. Consonant clusters</td>
<td>January</td>
<td>6.14 1.07</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>6.21 0.79</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>-0.07</td>
</tr>
<tr>
<td>6. Stress and intonation</td>
<td>January</td>
<td>6.01 1.18</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.94 0.96</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.07</td>
</tr>
<tr>
<td>7. Reduction and blending</td>
<td>January</td>
<td>6.92 1.14</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>6.81 0.97</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.11</td>
</tr>
</tbody>
</table>

Time 1—Time 2: Mean Difference 0.01

as might be expected. For the CPT class (see Table 3), the means for Time 1 and Time 2 are nearly the same, and the differences between them hover around zero. For the other class, there is a more positive pattern of improvement in every subskill, and the overall mean difference is .11.

There are several possible explanations for this pattern. The first explanation for the lack of improvement in the CPT class’s storytelling scores is that telling stories is a specialized skill that this class did not focus on as much as the other group did. Telling an original story from picture prompts requires much more than correct pronunciation. Creativity, rhetorical structure, grammar, and vocabulary all come into play in this task. When nonnative speakers are working with all these aspects of speech production at once, their pronunciation may suffer accordingly. For these very reasons, improvement may take longer at this level of communication.

In contrast to the CPT class, the ESL class that did not include communicative pronunciation instruction focused heavily on storytelling for several weeks in preparation for a semester-final
Table 4. Passage Reading Accentedness Rating

<table>
<thead>
<tr>
<th>Subskills</th>
<th>Times</th>
<th>1. L/S class with CPT</th>
<th>2. L/S class without CPT</th>
<th>3. Native English Speakers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Groups</td>
<td>N=14</td>
<td>N=8</td>
<td>N=3</td>
</tr>
<tr>
<td>Overall comprehensibility and accentedness</td>
<td>January</td>
<td>5.77 0.83</td>
<td>4.85 0.59</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.55 1.23</td>
<td>4.88 0.35</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.22 -0.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluency in general</td>
<td>January</td>
<td>5.41 0.84</td>
<td>4.58 0.38</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.40 1.29</td>
<td>4.75 0.64</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.01 -0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vowel sounds</td>
<td>January</td>
<td>5.72 0.51</td>
<td>5.00 0.74</td>
<td>1.03 0.05</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.54 0.87</td>
<td>4.90 0.35</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.18 0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consonant sounds</td>
<td>January</td>
<td>5.74 0.66</td>
<td>5.08 0.48</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.43 0.92</td>
<td>5.00 0.24</td>
<td>1.00 0.00</td>
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<tr>
<td></td>
<td>Difference</td>
<td>0.31 0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consonant clusters</td>
<td>January</td>
<td>6.08 0.69</td>
<td>5.32 0.49</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.71 0.92</td>
<td>5.27 0.30</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.37 0.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress (word and sentence level)</td>
<td>January</td>
<td>5.90 0.81</td>
<td>5.08 0.34</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.81 1.20</td>
<td>5.23 0.41</td>
<td>1.00 0.00</td>
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<tr>
<td></td>
<td>Difference</td>
<td>0.09 -0.15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intonation</td>
<td>January</td>
<td>5.86 0.79</td>
<td>5.02 0.50</td>
<td>1.03 0.05</td>
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<td>April</td>
<td>5.87 1.16</td>
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<td>-0.01 -0.26</td>
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</tr>
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<td>Reduction and blending</td>
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<td>6.58 0.76</td>
<td>5.65 0.79</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>6.45 1.29</td>
<td>5.75 0.23</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.13 -0.10</td>
<td></td>
<td></td>
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<tr>
<td>Segmentation (appropriate pausing)</td>
<td>January</td>
<td>5.97 0.72</td>
<td>4.88 0.57</td>
<td>1.03 0.05</td>
</tr>
<tr>
<td></td>
<td>April</td>
<td>5.71 1.30</td>
<td>5.05 0.79</td>
<td>1.00 0.00</td>
</tr>
<tr>
<td></td>
<td>Difference</td>
<td>0.26 -0.17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 1 – Time 2: Mean difference</td>
<td></td>
<td>0.17 -0.07</td>
<td>0.01</td>
<td></td>
</tr>
</tbody>
</table>

Storytelling contest. Thus, it is not surprising that students in this second group improved the most on the storytelling task. Nevertheless, the mean improvement was only .11 points, which was not a significant change.

Another explanation for the lack of significant Time 1–Time 2 differences in this speaking task has to do with the rating of it. It is difficult to rate pronunciation when listening to storytelling samples because the language of each story is original and varies from speaker to speaker in content, structure, and lexicon. It is easy for raters to get distracted by what the speaker is saying or by grammar or vocabulary mistakes. In this regard, our observation, which may
benefit future researchers, is that storytelling is not the best task for evaluating pronunciation improvement.

Passage Reading

The third speaking task used in this study—but which was not used by Derwing, Munro, and Wiebe (1998) in their research—was passage reading. The results here (see Table 4) were similar to those produced by the sentence-reading task. The General Linear Model analysis of variance found that there were differences according to time, but these were significant only at the \( p < .1 \) level (meaning that there is less than a ten percent chance that the conclusion that differences exist is wrong). As Hatch and Lazarton (1991, 232) explain, such trends are still worthy of note. As with the other tasks, in the passage-reading data there were significant differences according to group and subskill.

The mean difference in the accentedness rating between January and April was much greater for the class that received communicative pronunciation instruction (.17) than it was for the other class, which showed no improvement at all for this task (-0.07). These figures provide additional

<table>
<thead>
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<th>Table 5. Individual Student's Accentedness Change Patterns</th>
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<td>3</td>
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<td>14</td>
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<tr>
<td>Mean Difference</td>
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</table>

Class w/out CPT

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.26</td>
<td>5.96</td>
<td>0.30</td>
<td>5.17</td>
<td>5.31</td>
<td>-0.14</td>
<td>4.66</td>
<td>4.96</td>
<td>-0.30</td>
</tr>
<tr>
<td>2</td>
<td>3.94</td>
<td>4.86</td>
<td>-0.92</td>
<td>4.51</td>
<td>4.19</td>
<td>0.32</td>
<td>5.58</td>
<td>5.69</td>
<td>-0.11</td>
</tr>
<tr>
<td>3</td>
<td>5.94</td>
<td>5.86</td>
<td>0.08</td>
<td>6.55</td>
<td>6.55</td>
<td>0.00</td>
<td>4.43</td>
<td>5.22</td>
<td>-0.79</td>
</tr>
<tr>
<td>4</td>
<td>5.57</td>
<td>5.74</td>
<td>-0.17</td>
<td>5.44</td>
<td>5.63</td>
<td>-0.19</td>
<td>5.44</td>
<td>4.83</td>
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support for the hypothesis that communicative pronunciation teaching actually does lead to significant improvements in students’ pronunciation.

Individual Variation

In their research on the effects of different types of pronunciation teaching, Yule and Macdonald (1995, 346–48) found a wide range of individual student reactions ranging from improvement in pronunciation to deterioration (see also Yule, Hoffman, and Damico 1987). Other researchers and teachers (Miller 2000) have also discovered that the relationship between instruction and improvement is not a simple, straightforward one. Leather (1983, 205) explains that pronunciation change is a complicated process involving many variables, such as age and attitudes.

Looking at individual student scores in our research (see Table 5), we see a similar pattern—some individuals made much more progress than others. There was a fairly consistent and dramatic increase in standard deviations (or spread of scores) in the CPT group from January to April. A similar pattern cannot be found in the comparison group. This phenomenon suggests that communicative pronunciation teaching benefitted some students more than others, thus spreading their scores more.

The class that received communicative pronunciation training showed a large increase in the standard deviation for nearly every pronunciation subskill for both the sentence reading and passage reading tasks (see Tables 2 and 4). In many cases, the standard deviation went up by half or more and in a few cases it nearly doubled. For about a third of the CPT students, the score increases were dramatic (close to half a point or more). These students improved much more than the class mean (.23 for sentence reading, .18 for passage reading). On the other hand, in both classes there were individuals whose scores did not show any reduction in pronunciation problems over time. A few even seemed to have more of an accent at the end of the course. In light of this somewhat discouraging finding, some reassurance comes from Yule and Macdonald’s conclusion that “initial deterioration in pronunciation after instruction is not necessarily the end of the process and that subsequent improvement is not only one of the possible, but also one of the natural effects of L2 pronunciation teaching” (1995, 349). As Miller (2000) expresses it, “It takes time, practice, and a plan of action that goes beyond what happens in class before students complete the process of transferring new pronunciation to everyday speech.”

Overall, these results confirm what earlier researchers have found—pronunciation instruction can be helpful, but it is not the only factor that influences student speech improvement. In a study investigating the effects of different types of pronunciation instruction, Macdonald, Yule, and Powers observed that “the individual learner may serve as a more powerful variable than does the instructional setting in the acquisition of pronunciation (1994, 95–96). Other significant elements include motivation, natural aptitude for language learning, and the speaker’s native language (cf. Purcell and Suter 1980, 281; Scarcella and Oxford 1994, 224). The data from this study have not been examined in light of these factors. Nevertheless, even while ignoring these important considerations, the data still show that, on the average, communicative pronunciation instruction can exert an overall positive effect on reducing accentedness in students’ speech. Pronunciation teaching may not be so hopeless or useless as some have thought.
Attitudes towards Pronunciation Instruction

At the beginning of the semester, students in both groups filled out a survey to give the teacher an idea of their perceived language ability and expectations for the class. When asked to rate how much of a problem pronunciation was for them, all students indicated that they considered pronunciation to be a fairly significant problem. They also expressed a strong desire for pronunciation instruction to be a major component of their listening/speaking class. In fact, many of the CPT class members chose this particular section because they had heard it would focus on pronunciation. Student responses to a questionnaire given at the end of the semester to students in the CPT class showed that enthusiasm for pronunciation instruction remained strong. Answers to open-ended questions, which asked them to evaluate the pronunciation component of the class, revealed several general trends. Regarding the instructional approach, students indicated that they appreciated the individualized instruction that came from the initial diagnosis of pronunciation problems at the beginning of the semester. In addition, they liked the focused, varied, and fun practice. The text, *Pronunciation Matters* (Henrichsen et al. 2000), also received very favorable comments. In further support for pronunciation training, students indicated that they wanted even more instruction focused on pronunciation.

LIMITATIONS

Before stating final conclusions, it is important to acknowledge a few of the potential limitations of this study. First of all, because of real-world constraints, it employed a quasi-experimental, intact-group design. There was no random assignment of the ESL student participants to treatment groups, so there may have been some preexisting differences between the two classes even though they were officially at the same level. The data, in fact, show that there were differences in level of accentedness on most tasks at the beginning of the semester. However, the fact that students were participating in a normal class (instead of some group artificially formed for research purposes) added authenticity to the instructional experience and reduced the chances of other harmful threats to the study's validity. Still, this research was conducted with only two rather small groups of students. While the findings are encouraging, the research questions asked call for further study with other, larger groups of English language learners.

Next, there is a possibility of teacher effect. Since one of the teachers of the class that received communicative pronunciation instruction was also the author of the textbook being used, he might have created greater enthusiasm for the course. For the same reason, he also had a more-thorough-than-normal understanding of the communicative pronunciation teaching procedures. Of course, these procedures are explained in detail in the teacher's manual that accompanies *Pronunciation Matters*, so other teachers can easily become proficient in them also. Finally, there is an unlikely possibility of practice effect on the speech samples. There was a sixteen-week lag between the course-initial and the course-final recordings. Students did not see the sentences or the passage in that time. A different passage (Tanner and Carlston 2000) was used for a mid-term evaluation, and students had no expectation that the final passage would be the same as the first one. There was no focus on the passage itself during the class instruction. For the storytelling procedure, a different set of pictures was used for the course-final recording. This effectively
eliminated the possibility of practice effect boosting students' performance on this task at the end of the semester. While it might be argued that familiarity with the procedure could have helped students do better, the scores of the students in the comparison group, which showed no improvement in general, provide solid evidence against this point.

CONCLUSION AND SUMMARY

The results of our study point to the efficacy of communicative pronunciation teaching. Although communicative pronunciation teaching does not guarantee immediate and dramatic results, it can make a desirable difference in students' speech by reducing accentedness. Furthermore, the data indicate that evidence of improvement is more apparent on some speech elicitation tasks than on others. Improvements were most apparent on the more controlled sentence reading and passage reading tasks as opposed to the extemporaneous storytelling activity. In addition, this research implies that apart from the instruction itself, learner factors such as motivation, native language, and aptitude also influence pronunciation improvement patterns. Finally, the study suggests that communicative pronunciation teaching is enjoyable. Students who have experienced it have positive attitudes about it. This type of feedback is encouraging, particularly because, as the data reveal, pronunciation improvements are generally incremental. Although the heavy investment of time and effort to bring about relatively small improvements in pronunciation may be frustrating to some ESOL teachers and administrators, this reality does not mean that pronunciation instruction should not be provided. Instead, it argues for a consistent, long-term commitment to pronunciation instruction in ESOL programs for adults.

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Communicative Pronunciation Teaching and Its Effects on Learners


Writing English with a Chinese Mentality

Julia Kit-Ching Ho

Research indicates that a person’s first language can influence his or her ability to learn a second language. Ringbom (1987) declares that contrastive analysis can assist to “solve the practical problems of language teaching” (47). Connor (1996) states that “contrastive rhetoric studies have discovered differences between Chinese and English writing” (41). In other words, contrastive analysis can help Chinese students predict problems in their English writing.

Under the Contrastive Analysis Hypothesis, English and Chinese differ greatly in various linguistic aspects, such as rhetorical patterns and coherence. All these differences have an impact on Hong Kong students’ English writing. This explains why they often make mistakes in their English composition. In addition, Hong Kong students seldom learn about the English writing style before coming to study in America. When attending ESL writing classes, Hong Kong students, especially newcomers, find it hard to complete an essay within the fifty-minute class period. This is possibly because that they spend too much time writing an introduction.

The purpose of this study is twofold: (1) to determine whether the “known-new sequence” technique can help new ESL students from Hong Kong write a coherent introduction quickly; (2) to test if the new knowledge can help them complete and even edit their in-class essays.

Rhetorical Patterns

English and Chinese have different rhetorical patterns, because they developed from different cultures. Linguists (e.g., Lado 1957, Larsen-Freeman 1980, Damen 1987) report that there are structural variations across cultures. This leads to cross-cultural interference for people learning a second language. Ulla Connor (1966) writes that “rhetorical conventions of the first language interfere with writing in the second language” (5). Applying this principle to Hong Kong students, we can conclude that the Chinese rhetorical patterns hinder Hong Kong students’ English composition.

Contrastive rhetoricians (e.g., McCarthy 1991, Scollon 1991, Matalene 1985) have studied Chinese rhetorical patterns. McCarthy claims that different languages have diverse textual patterns. According to his analysis, English has a “linear and hierarchical” pattern, whereas Oriental writings are characteristically indirect.

In like manner, Connor (1996) advocates that “different cultures have different expectations of writing and that these different expectations are internalized as different patterns of discourse” (167). Leki (1992), an ESL educator, points out that the organizational pattern chosen by ESL students may be “a result of rhetorical constraints not shared by English speakers” (102). In brief, the rhetorical pattern of Chinese differs from that of English, which affects Chinese students’ organization of their English composition.
COHERENCE

In addition to rhetorical patterns, contrastive rhetoricians also study the coherence of texts. Due to the diversity of English and Chinese rhetorical patterns, Chinese students have difficulties in managing the coherence of their English essays.

Connor and Farmer (1990) indicate that the coherence of texts can be shown by progression. They list three kinds of progression: parallel, sequential, and extended parallel. Chinese writing uses parallel progression, in which the topics of successive sentences do not vary. Here is an example (the topic of each sentence is underlined):

1. **Chocolates** are a national craving.
2. Records show **they** are sold in huge quantities—11.2 pounds per capita each year.
3. **Designer chocolates** often sell for nearly $30/lb.
4. It is obvious that **these candies** are America’s number one choice.

Unlike Chinese, English writing typically uses sequential progression. In this type of progression, topics of successive sentences are not always the same, and the predicate of one sentence can become the topic of the next sentence. Here is an example (the topic of each sentence is underlined):

1. **Computer interviews** are used by market researchers to assess product demand.
2. Using these, many different **products** are analyzed.
3. For example, people may be asked about **detergents**.

Kolln (1992) makes a similar point that English sentences are typically linked together by the “known-new sequence”:

- the first sentence of a paragraph consists of new information, it will introduce the topic, but the second sentence can only be connected to the first by means of known information—usually in the subject slot. (350).

To their English-speaking teachers, Chinese students’ English composition lacks coherence because they employ Chinese writing habits in their English writing. McCarthy (1991) professes that one reason for poor second language writing is the partial knowledge of the rules and patterns of the second language. Without knowing the differences between the rhetorical patterns and cohesion of English and Chinese, Chinese students have difficulties in writing a coherent English essay.

THE STUDY

This study involved fifteen new students from Hong Kong. They came to study at Brigham Young University–Hawaii (BYU–H). When they participated in the study, they had not attended any ESL courses at BYU–H.

A writing workshop was set up to help all new international students learn the English rhetorical pattern, but they were grouped according to their nationality. Only the new Hong Kong students were taught the known-new sequence. In addition, a survey form was constructed to inquire about the subjects’ opinions on the helpfulness of the “known-new sequence” in writing an introduction.

In the workshop, the new Hong Kong students were taught the English rhetorical pattern. First, they learned the characteristics of an introduction of an English essay. They then practiced writing an introduction on the topic “Pets.” The writing time was recorded. Following the introduction section, the subjects were taught how to write the body and the conclusion of an English essay.

After that, the subjects learned how to apply the known-new sequence to writing an introduction. After learning the principle, the subjects applied that knowledge to writing an introduction on the
topic "The reasons for studying at BYU-H." The writing time was recorded also. Finally, the subjects wrote an essay on one of three given topics and employed the "known-new sequence" to writing the introduction. The writing time was recorded. At the end of the workshop, the survey form (Appendix A) was distributed to the subjects.

RESULTS AND DISCUSSIONS

The following table shows the time subjects used to write each introduction. ("Before" means that the subjects had not learned the known-new sequence, whereas "After" means the subjects had been taught the known-new sequence.)

Table 1 shows that after learning the known-new sequence, nearly all the subjects took less time writing an introduction. The subjects' writing times for essays are tabulated in Table 2.

Table 2 indicates that all of the subjects could finish an essay within thirty minutes, which was the time limit for the writing section of the placement test.

In addition to the timing, the subjects' writings also indicate the vitality of the known-new sequence in helping Hong Kong students' English writing. Subject E's introductions can illustrate this point.

The following is an introduction written by subject E before learning the known-new sequence.

Pets is animals which are very kind. Almost every family have a pet. They love pets very much, and I am one of them. I would like to share how I feel about having a pet and how to become my close friend.

In this introduction, subject E spent six minutes and twenty seconds to write twenty-seven words, an average of eight words per minute. On the other hand, she had a different performance when applying the known-new sequence in her writing. Here is her introduction on the topic "The reasons for studying at BYU-H."

Pets is animals which are very kind. Almost every family have a pet, they love pets very much, and I am one of them. I would like to share how I feel about having a pet and how to become my close friend.

In this introduction, subject E spent six minutes and twenty seconds to write twenty-seven words, an average of eight words per minute. On the other hand, she had a different performance when applying the known-new sequence in her writing. Here is her introduction on the topic "The reasons for studying at BYU-H."

Table One. The Time Required for Writing an Introduction

<table>
<thead>
<tr>
<th>Subject</th>
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<th>After</th>
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<tr>
<td>B</td>
<td>6:30</td>
<td>4:40</td>
</tr>
<tr>
<td>C</td>
<td>8:00</td>
<td>6:00</td>
</tr>
<tr>
<td>D</td>
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<td>5:30</td>
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<tr>
<td>E</td>
<td>6:20</td>
<td>5:20</td>
</tr>
<tr>
<td>F</td>
<td>7:15</td>
<td>6:00</td>
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<tr>
<td>G</td>
<td>8:00</td>
<td>7:10</td>
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<tr>
<td>H</td>
<td>10:00</td>
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Table Two. The Time Required to Write an Essay

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<th>Time</th>
<th>Subject</th>
<th>Topic No.</th>
<th>Time</th>
</tr>
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<tr>
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<td>3</td>
<td>20:00</td>
<td>J</td>
<td>1</td>
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<tr>
<td>C</td>
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<td>H</td>
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<td>24:10</td>
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There's not many university in Hong Kong. Since then, students try to study abroad, and usually they'll seek to go to some popular countries and cities. But I chose to study in Hawaii which is not known well in Hong Kong. Because I may learn about how to be independent and have a chance to get to know people from lot of other countries.

This time subject E wrote thirty-three words in five minutes and twenty seconds, an average of twelve words per minute. She spent less time but wrote more words in the second introduction. All of the subjects wrote either the same or a higher number of words in their second introductions, but they took less time than they did to write their first introductions. This again reflects that the new technique did play a role in helping Hong Kong students write an introduction in a timely manner.

The results of the survey (see the form in Appendix A) also indicate the helpfulness of the known-new sequence. All of the subjects gave affirmative answers and commented that the known-new sequence did directly or indirectly help them write a coherent introduction faster. Subjects' responses on questions 2, 4, and 6 are tabulated below.

According to the survey forms, all of the subjects said that they spent more time writing an introduction without the knowledge of the known-new sequence. In addition, they all commented that the known-new sequence did help them write a coherent introduction quickly, and they also recommended sharing this knowledge with other Chinese students.

This new insight can motivate researchers to study whether Chinese students can benefit from using the known-new sequence in writing their English essays. For example, studies can be carried out to see whether the known-new sequence can be applied to an entire essay. Another related research question

<table>
<thead>
<tr>
<th>Question</th>
<th>Subjects' Responses</th>
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| 2: How does this technique help you in writing? | a) familiarizes me with the American style  
b) helps me write a coherent essay quickly, think logically, write smoothly, and have a clear idea of my writing  
c) learn to focus on writing the main points and shortens my thinking time  
d) enables me to organize the content more logically, arrange my information more effectively, and avoid redundancy |
| 4: How can this technique shorten writing time? | a) organize and expand a paragraph easily  
b) know what to write in the next sentence  
c) gives me hints to start a precise introduction  
d) have more ideas in my mind when writing  
e) avoid wasting time in thinking unrelated information  
f) clearly know an American teacher's expectation |
| 6: Without this it difficult to write an introduction | a) five subjects replied “sometimes” (depending on technique, is the topic)  
b) two said “no,” but need more time in planning  
c) eight answered “yes” because they can write an introduction easily |
may be to test if known-new sequence can help Asian students other than those from Hong Kong write a quick introduction and a coherent essay.

NOTES

1. The three topics for the essay were: (1) Compare and contrast your home country and Hawaii; (2) Describe yourself; and (3) The advantages of saving money.

REFERENCE

APPENDIX A

1. Is it helpful to you in writing after knowing the known-new sequence?
   Yes________     No_______

2. If yes, how does this technique help you in writing?

3. Do you think the *old and new* information relationship can shorten the time in writing an introduction?
   Yes________     No_______

4. Please explain the answer you chose for Question 3.

5. Your timing in writing an introduction
   Before_______    After_______

6. Without the knowledge of *old and new* information, is it difficult for you to write an introduction?

7. Without the knowledge of *old and new* information, do you spend more time in writing an introduction?

8. Should the knowledge of *old and new* information be shared with other Chinese students?
Video-Anchored Distance Learning: The Professors Plus Model

Annela Teemant
M. Winston Egan
Stefinee Pinnegar
Melanie Fox-Harris

The United States educational system has entered an era of growing diversity in the mainstream classroom; a record 42 percent of public school students are language-minority students. In addition, there is clear evidence that K–12 teachers are not prepared to effectively support or accommodate diverse student populations in the regular classroom (Clair 1995; Faltis, and Hudelson 1994; Golinhick 1992; Landers, Weaver, and Tompkins 1990; Penfield 1987; Rosenthal 1992–93; Simms and Leonard 1986). Locally, the state of Utah has experienced a dramatic increase in enrollment of second-language students, leaving large numbers of in-service teachers in need of bilingual/English as a Second Language (ESL) teaching endorsements. Preparing teachers to respond to the needs of students who are diverse in culture, language, or learning is paramount if public schools are to equitably serve all students (Darling-Hammond 1997; Goodlad 1998; Kohl and Witty 1996; LaCelle-Peterson and Rivera 1994; Lucas, Henze, and Donato 1990).

In 1997, Brigham Young University, through its university–public school partnership, responded to local needs by developing a Bilingual/ESL Endorsement through the Distance Education (BEEDE) program. In developing the BEEDE program, the university–public school partnership had to resolve two major difficulties. The first was how to create learning-centered curriculum taught in a distance education format. The second was to develop a framework through which regular classroom teachers would be even more able to respond to the needs of students in their classroom who are culturally, linguistically, and academically diverse. In this paper, we will provide a brief description of BEEDE; secondly we will introduce the “Professors Plus” delivery system and articulate the ways in which it utilizes what we know about learners and distance education. Finally we will examine the “Inclusive Pedagogy” framework that enables teachers educated through the BEEDE program to respond to diversity in their classroom.

DESCRIPTION OF THE BEEDE PROGRAM

The BEEDE program’s overarching purpose is to advance the education of language-minority students through teacher development. The program meets this purpose by developing teachers who know how to learn and grow as educators. Participants, in particular content-area teachers, will be able to work with linguistically and culturally diverse learners in the regular classroom in ways that reflect pedagogic practices that are inclusive of all learners. Completion of the entire BEEDE program results in participants being granted a bilingual/ESL teaching endorsement. This paper focuses specifically on the first of these courses,
“Foundations of Bilingual Education.” The program will eventually include six courses and a forty-hour practicum.

**Overview of the Professors Plus Model**

A distance-learning format was selected over traditional university-centered courses to deliver professional development that could be adjusted at multiple school sites to the needs of rural, suburban, and urban populations and the work schedules of in-service educators. Distance education is valued because it affords flexibility of scheduling, but most distance-education formats are either frozen or interaction may seem artificial. Therefore, in addition to video anchoring the content, we decided to use a certified on-site facilitator. The video anchoring ensured consistent, high quality content delivery. In fact, recent and past research reviews dealing with television instruction demonstrate that students perform as well on outcome measures in television courses as they do in traditional courses (Chu and Schramm 1975; Whittington 1987).

The on-site facilitator would also allow us to pay more attention to the conditions of learning, the environment for learning, and relationships in learning. The BEEDE program uses the Professors Plus delivery system. The Professors' part of the delivery system includes the development of carefully crafted video segments and an instructional guide, all of which enhance learning and transfer. These video segments create, in essence, a visual textbook. Using a strategy of show, not tell, the video segments capture audience attention and contextualize key teaching points. The perspectives of various university professors and researchers highlight content that is juxtaposed against the real-world voices and examples of students, educators, parents, and other community members. This makes the relationship between theory and practice immediately visible.

The Professors' part also includes development of an instructional guide that supports active learning, encourages thoughtful, analytical reflection, and above all, models appropriate strategies teachers can use with language-minority students. The instructional guide for each session of the course is divided into three sections: “Get Into,” “Move Through,” and “Reach Beyond.”

The Plus part of the delivery system is an on-site, master's-prepared facilitator with extensive public school classroom experience. Unlike teacher-proof curriculum, this system recognizes the vital role a teacher can play in creating a learning environment and in supporting the learning of all students. To this end, the materials created provide the facilitator with all the tools needed to be successful in creating this environment and teaching the content. In this program, the facilitator is responsible for creating a sense of community among learners. Employing teacher immediacy to foster interaction, the facilitator shares objectives, uses active learning strategies to promote student engagement, provides opportunities for performance, assesses learning, and communicates with professors when problems arise. Using Professors Plus allowed us to focus on responding to what we know about student learning in a distance education environment.

**Student Learning Variables and Design Implications for Telecourses**

Researchers have identified student-learning variables that contribute to effective and meaningful learning in college students and adult learners (Angelo 1993; Ference and Vockell 1994; Forsyth and McMillan 1991; Morgan 1991). These variables provide the basis for student-centered instruction and thus direct the ways in which telecourses are structured, designed, and taught. In articulating the relationship between student-learning
variables and the instructional design environment of the telecourse format, we begin by identifying what student-centered instruction is. Next we articulate how to use organization and planning to achieve clarity. Then we consider how to motivate students, develop learning communities, employ teacher immediacy to foster interaction, use active learning to promote student engagement, and finally use feedback to promote learning.

Student-Centered Instruction

Student-centered instruction promotes student learning and related outcomes. Student-centered instruction is clear and understandable (Lowman 1984), is responsive to the ways in which students learn and communicate (Kolb 1984), acknowledges students' interests and motivations (Forsyth and McMillan 1991), and honors the social nature of learning (Johnson, Johnson, and Smith 1991). Additionally, it is engaging (Bonwell and Eison 1991) and focuses on the explicit needs of learners for meaningful and timely feedback (Van Houten 1980).

Achieving Clarity through Organization and Planning

Professors provide instruction that is clear and easy to understand using distinct examples of ideas and concepts, pointing out topic transitions, and consistently identifying key points (Pascarella and Terenzini 1994, p. 586). At least one study suggested that instructor clarity accounts for as much as 52 percent of the variance in mean class achievement (Hines, Cruickshank, and Kennedy 1982).

Course developers achieved clarity by creating detailed, precise syllabi and interactive study guides (Cyrs and Smith 1992). These syllabi and study guides are often broader in scope and more specific in content than those prepared for conventional courses. Some professors refer to these materials as "extended syllabi." In particular, interactive study guides are designed to counter the "couch potato" phenomenon: They are structured to move students from passive reception to active learning and engagement during course sessions. Additionally, they provide students with visual representations of knowledge structures, intricate processes, and other complex phenomena. Another benefit of these guides is the assistance they give to students in managing the flow of information presented during telecourses and in understanding the relationships between concepts or processes. Extended syllabi are designed to compensate for the absence of informal instructor/student interactions that would typically take place before, during, or after conventional course sessions. Extended syllabi also help students know exactly how to proceed with course assignments, how to make the most of each Professors Plus session, how to prepare successfully for examinations, how to develop and submit assignments of quality, and how to monitor personal progress in completing courses.

Another crucial aspect of clarity was achieved through planning clear objectives and related learning activities for each course session. Advanced preparation and planning were essential. Video-anchored course content by its very nature is a team process, frequently involving several other professionals in developing and delivering the instruction. Professors who are accustomed to planning their instruction several hours before they enter their conventional classrooms and who use these same habits of preparation for distance education will disappoint themselves and their students. Successful distance instruction requires more extensive planning and collaborative work with other professionals than does conventional instruction.

Also, clarity was achieved through careful selection of course content. Rather than "covering" course content, professors work at uncovering difficult-to-understand concepts and themes. They
do this by directing their teaching and learning activities to concepts that would be difficult for most students to understand on their own. Additionally, professors segment their sessions into manageable and interesting sections. Cyrs and Smith (1992) have often referred to these sections as "lecturettes." These lecturettes are precise presentations designed to keep students engaged and alert. These presentations are generally followed by activity-oriented student tasks. Like the typical sequences of the television news, these learning segments are a mix of explanations, illustrations, and questions. However, unlike the news, students are required to engage in some activity that ensures learning. Learning activities are done individually, in dyads, or in small learning teams at each receiving site.

Carefully selected graphics, engaging video segments, and other computer-generated animations also contribute to clarity. Unfortunately, many professors are not accustomed to thinking or communicating visually and do not understand how to utilize fully the visual strengths of television. However, with appropriate support from instructional designers, graphic artists, and other visually-oriented production personnel, professors learn how to use television to heighten the clarity and engagement of their instruction.

Stimulating Motivation in Students

Intrinsic motivation generally hinges on students' curiosity (McKeachie 1986), their desires to achieve, their expectations of success, and their goals for learning (Forsyth and McMillan 1991). Curiosity is aroused by stimuli that are novel, but not so different as to be incongruous with the students' prior knowledge or experience (McKeachie 1986). Novelty is introduced in several ways:

1. Asking unexpected questions that cause students to analyze their prior knowledge in new ways
2. Providing brief start-up activities in which students predict the relationship between prior knowledge and new content
3. Introducing case studies as vehicles for making sense of new content
4. Interjecting pair and share activities in which students briefly work with partners to answer questions, make predictions, or summarize new information
5. Ending each class session with a preview of the next session

Students' goals for learning and their expectations of success are also important motivators. Each course allows students to use the course syllabus to define their goals for learning and to outline what responsibility they will take to achieve these goals. Students also set benchmarks for progress to be evaluated at regular intervals. Facilitators provide feedback throughout the course so that students continue to be motivated by their progress and achievement.

Developing Learning Communities

Distance learners, by definition, are not in the immediate presence of their professors, so essential interactions among and between professors, facilitators, and students that help clarify information will be crucial. Therefore, it is crucial to establish learning communities at each site are established (Verduin and Clark 1991). These communities provide opportunities for students to teach each other, to clarify course-related questions and assignments, to receive academic and social support, and to develop relationships that extend beyond the duration of bilingual/ESL endorsement courses. Some students may volunteer to host study groups.

Another approach that may be employed for connecting students is the establishment of a listserv or electronic bulletin board. Through this connection, students, facilitators, and professors may
freely interact through e-mail. Questions, responses, or comments may be shared by e-mail with all course participants, several participants, or just one student. Also, professors may use the listserve for informal interactions with students.

**Employing Teacher Immediacy Behaviors to Foster Interaction**

Teacher immediacy behaviors (Sanders and Wiseman 1994) are essential to good distance instruction. Teacher immediacy behaviors invite interaction, suggest approachability, and foster positive affective outcomes in students. Course designers assist on-site facilitators and professors captured on video segments to vary their vocal expressiveness, to smile with appropriate frequency, and to establish eye contact with students at a distance by frequently relating to television cameras. These behaviors contribute positively to students' feelings about their learning and the efforts they devote to course activities and assignments.

**Using Active Learning to Promote Student Engagement**

Unfortunately, much of what is offered through telecourses is the "talking head" or lecture-based teaching. Research regarding this teaching approach and its effectiveness in promoting quality learning is not encouraging (Bonwell and Eison 1991; Johnson, Johnson and Smith 1991; Meyers and Jones 1993). Active learning involves more than listening, being alert, and paying attention. It consists of being actively involved in discussing problems, seeking solutions to case studies or dilemmas, responding to simulations, participating in games, and making decisions. Course development teams created learning experiences that promote engagement rather than passivity by carefully considering the objectives of each course session, the nature of the subject matter, and the capabilities of students in the target audience.

Several prominent researchers and practitioners have provided recommendations for moving students from passive to active learning habits. The recommendations center on creating interactive study guides (Cyrs and Smith 1991); developing critical thinking skills through debate teams, critical incidents, dramatizations, and scenario building (Jones and Safrit 1994); employing embedded questions for immediate student responses in video-anchored presentations (Cennamo, Savenye, and Smith 1990); applying alternative formats for lectures (Bonwell and Eison 1991); and using cooperative learning groups (Johnson, Johnson and Smith 1991). These approaches are used in the courses developed for the BEEDEE program, particularly those centering on critical thinking and problem solving.

**Using Feedback to Promote Learning**

Feedback is essential for students to create meaning from that which they have learned. Students develop as learners when appropriate feedback alerts them to the accuracy of their work and deters them from learning things that may have to be unlearned later (Angelo 1993; Van Houten 1980). Often students decide whether they will stay with a distance course based on the feedback received on initial assignments and exams. If the feedback is late, not very specific, and inappropriate to students' entry level skills or knowledge, they may withdraw from the telecourse or commit less energy to it (Egan, Ferraris, Jones, and Sebastian 1993).

Timely and efficient feedback will be provided by course facilitators. Feedback is also critical for professors. As each course is developed and field tested, participating students will have opportunities to give precise feedback about the learning activities and the instructional quality of the mediated segments.
**Inclusive Pedagogy: The Program's Conceptual Framework**

The Foundations of Bilingual Education course is pivotal in establishing the Inclusive Pedagogy Framework as a way of learning about language minority students. Inclusive Pedagogy is a conceptual framework for professional growth that enables educators to respond in educationally appropriate ways to the linguistic, cultural, and learning diversity of students in their classrooms. Inclusive Pedagogy is defined by five characteristics: collaboration, guiding principles, essential policy, critical learning domains, and classroom strategies. Each characteristic is defined by standard, goal questions that promote common understandings, and a reflection-for-change question that promotes united advocacy. Inclusive is used to reflect common understandings and Pedagogy is used to remind teachers that every teaching act is an act of advocacy. In the BEEDE program the focus is on ESL students; however, the framework, in other educational contexts, is used to address the needs of all special population students: ESL, multicultural, learning disabled, and gifted/talented.

Participants in the BEEDE program are asked to demonstrate their understanding of language minority students through a portfolio framed by the characteristics of Inclusive Pedagogy:

1. **Collaboration:** Meeting the needs of today's language-minority students demands collaboration across academic disciplines, institutions, and school-home cultures.
2. **Guiding principles:** Effective instruction for language-minority students must be guided by theoretical and moral principles.
3. **Essential policy:** Essential policy must be an integral part of advocacy for language minority.
4. **Critical learning domains:** Learning involves cognitive, social/affective, and linguistic development.
5. **Classroom strategies:** Teachers must know the what and the why of effective classroom strategies for language minority students.

The Inclusive Pedagogy Framework serves as the lens through which the factors impacting the school experience of language minority students in the United States are examined.

**Evaluating Course Impact and Effectiveness**

The BEEDE program targeted improving teacher knowledge and effectiveness as a means of improving language minority student learning. To date, a judgment on the effectiveness of the BEEDE Program with its Professors Plus model is based on the use of the Foundations of Bilingual Education course—the first course of seven in the program. During the autumn of 1999, Foundations of Bilingual Education was offered simultaneously to diverse groups in multiple locations (for example, a group of thirty in-service educators and a separate group of thirty preservice teacher candidates).

Using the university's standard seven-point Likert scale evaluation form, the Foundations of Bilingual Education course received a mean rating of 5.34 from the in-service group and a mean of 5.2 from the preservice group. Regarding the *Plus* portion of the course (e.g., the on-site facilitator), the student ratings suggest the facilitator was able to ensure consistent, high quality content delivery (in-service group mean = 6.06; preservice group mean = 6.0). These ratings provide evidence that the Professors Plus model can be successfully adjusted to educate different groups of learners in diverse settings around learners' work schedules.
In addition to this data, their portfolios also demonstrated their understanding of the characteristics of Inclusive Pedagogy and their ability to articulate the connections between course content and their professional experience. Ongoing evaluation of this program also includes other data sources, such as running records, focus groups, surveys, and video-based case study methods that allow student feedback to improve course development and future teacher development efforts. Based on preliminary findings, the Foundations of Bilingual Education video-anchored course effectively met its stated purpose, goal, and objectives.

CONCLUSION

In the development of the BEEDE Program, we took seriously the need to use what we knew about learners, learning environments, and teaching. Because we needed to reach active professionals working in a variety of settings with flexible scheduling, we selected a distance education format. We knew that learners who are actively engaged in content and part of a community are more likely to both learn and use course content. The literature on in-service education alerted us to the fact that teachers are more likely to try out new methods and strategies for teaching when they collaborate with other professionals in their own setting. This led us to commit to using a facilitator as part of the course delivery system.

We knew that trying to teacher- or student-proof curriculum is pointless. Therefore, instead, we created materials and teaching tools that required facilitator and student participation to be successful and drew out the best teaching efforts by the on-site facilitators. One of the biggest difficulties in educating teachers to work with diversity is the past experience of the teachers. Through the use of learning communities and the portfolio, we created the strongest environment possible for supporting teachers in reconsidering their beliefs and theories for working with diverse students. Finally, we embedded instruction in a framework that teachers could readily use to help them become better teachers for all students.

By attending to what research has taught us about teaching, learning, and distance education, we are better able to design instruction that supports rather than hampers teachers and learners. More importantly, we have created a system in which the use of technology improves what can be done without it. The Professors Plus model shows promise for distance education but also for solving the problems universities face in their increasing use of adjunct professors and graduate assistants. Through our commitment to the evaluation of teacher learning, the Professors Plus model will enable us to better understand teacher development and improve the quality of in-service education offered through distance education.

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Mark Turner has stated that the mind is literary: it uses what we categorize as literary devices to think through most ordinary problems (1996, 7). Among these devices are the projection of one story onto another, with “story” here being interpreted as even minimal scripts such as motion through space. Approaching literature through such common cognitive processes does pose some problems, however. Some of these problems arise from language which, according to cognitive linguistics, reflects cognition. In the words of Ungerer and Schmid, cognitive linguistics is “an approach to language that is based on our experience of the world and the way we perceive and conceptualize it” (1996, x). Problems arise because language makes possible certain types of play, deceit, and representation not bound by ordinary constraints. What we have in literature may be cognitive special effects, or constructs that use cognitive processes and concepts but do so in unusual ways. Therefore literature may be susceptible to cognitive analysis but may not show us much about how cognition is constituted.

I apply here only a small slice of the available strands in cognitive linguistics, but it is a very important slice, having to do with the blending of concepts in figurative thinking. Ronald Langacker (1987–1991) assures us that figurative language is no peripheral matter. Although many linguists ignore this topic, “it would be hard to find anything more pervasive and fundamental in language, even (I maintain) in the domain of grammatical structure; if figurative language were eliminated from our data base, little if any data would remain” (1:1). Langacker also insists that we not force a distinction between rule-governed creativity, of the type that leads to novel expressions, and creativity in a more general sense exhibited in figurative language and original thinking.

Lakoff and Johnson (1980) offer one model of metaphorical mapping and blending. This model includes two cognitive domains, called source and target, that are blended or mapped onto each other. In the metaphor, “the taste of the self is very sweet,” the source domain of eating food is mapped onto the target domain of one’s experience of the self. Such mapping allows us to conceptualize a less concrete, less structured idea such as the self in terms of a more concrete, physical, and structured concept such as tasting food. Mark Turner and Gilles Fauconnier have recently proposed a more elaborate model which loses some of the parsimony of the two-domain model but gains in being able to account for more of the structure and effects of blending. This model includes

- two input spaces: source and target
- a generic space: a skeletal structure that applies to both input spaces
- a blended space: a rich space integrating, in partial fashion, specific structure from both input spaces and often including structure not projected to it
An example will clarify how useful these four spaces are. Here is a thinking problem: “A Buddhist monk begins at dawn to walk up a mountain. He stops and varies his pace as he pleases, and reaches the mountaintop at sunset. There he meditates overnight. At dawn, he begins to walk back down, again moving as he pleases. He reaches the foot of the mountain at sunset. Prove that there is a place on the path that he occupies at the same hour of the day on the two separate journeys” (Turner 1996, 72). By imagining a scenario in which two monks set out on the same day, one heading up and the other down, we can prove that, regardless of their pace, they will meet. The point at which the two monks meet is the place that the one monk occupied at the same hour of the day on two separate journeys.

This many-space model offers advantages (Turner and Fauconnier 1995, 185-87). Chiefly, it shows that the blended space has its own logic not always available from either of the two input spaces. In the monk’s journey problem above, the image available in the blended space, that of two monks traveling toward each other from opposite ends of the trail, yields a point at which they cross, a point not available in either input space. The generic space clarifies the structure in terms of which the logic of the blend works. The model also clarifies that the target influences meaning, so it, too, is considered an “input” along with source domain.

Let us apply this model to a poem and see how it helps to reveal some of the cognitive strategies of the poem, especially those that involve the blending of domains through analogy and metaphor.

I have selected this poem almost at random from a recent monthly.

These Days
by Peter Davison

Days when it’s easy, the water seems wonderfully clear, not a chance of drowning. Objects appear so close that you need only reach down for them into coolness until the word offers up:
as though you could shape thought with your thumb. Around you the air blossoms with names for itself.
The noise of the waves tearing the shore apart blooms like French horns, and the taste of the self is very sweet. These days it’s easy to forget how stubborn silence can be, how rapidly glibness drains the mind of every nutrient, what fanatic reinforcements the armies of emptiness can bring forward.

These days every choice is clear, every location opens at a touch to yield its necessary drop of honey, every word glows with exactly the wanted intensity of tilt. (Davison 2000)

The many-space model helps to clarify how the meaning of specific lines is produced by the blending of domains. One of the first things to discover is that there may be more than one target and source in what appears as a single blend. Blends are nutshelled inside other blends, so to speak. I have numbered these to keep them distinct, with the lower numbered target being most immediate to the blend and the higher being the more remote. After some examples I note what is gained by blending input spaces in the manner observed.

Example 1: “Objects / appear so close that you need only / reach down for
them into coolness / until the word offers up."

**target 2**: days of a certain type  
**target 1**: finding words  
**source 1**: reaching for objects in clear water  
**source 2**: a desired thing offers up; what is wanted comes to one  
**generic space**: an action (reaching) under favorable conditions (clear, cool water) triggers a desired event. Or: inanimate things behave with volition in keeping with one's desire. Note that even this structure is a blend having its own input spaces: inanimate objects are seen as responsive to our intentions.  
**blended space**: reaching for a word is like reaching for an object; at some point the word will come to the hand  
**gain**: the pleasant (cool) tactile sensation of reaching through a clear medium for something you can see is seen as a cause that triggers in words an inclination to volunteer themselves to the mind

**Example 2**: “as though you could shape thought with your thumb”  
**target 3**: thinking, writing  
**target 2**: good days  
**target 1**: wanting the right words  
**source**: molding an unspecified material (clay, for example) with thumb  
**generic**: causing shape, influencing form  
**blend**: words shaping thoughts (or thoughts being shaped into words?) just as one wishes

**Example 3**: “around you the air / blossoms with names for itself”  
**target 2**: thinking or writing successfully  
**target 1**: recognizing words for air; naming in general  
**source**: plants producing flowers  
**generic space**: yielding, as in flowers producing blossoms on their own  
**blend**: air yields right names for itself  
**gain**: insubstantial medium substantially yields the right insubstantial representations  

We can use the many-space model to interpret the poem as a whole. Overall, the poem has this kind of blended space:

**target 2**: successful cognition (or, if cognition is metonym, writing)  
**target 1**: experience of a type of days (what are good days like?)  
**source 2**: goodness  
**source 1**: various concrete types of reaching and abstract types such as naming  
**generic**: fulfilled motion or sensory experience  
**blend**: days as various types of pristine sensory experience and motor movement.

Note that good days are not seen simply as pristine sensory experience, but that this model maps onto thinking and writing.  
**gain**: depict the act of clear and successful thinking without having to demonstrate it with clear thought; conceptualize proper naming without having to name. Instead these mental activities are conceived through analogs in concrete sensory experience.

Blended spaces provide, I think, a clearer, more complete model for teaching metaphor than most literary discussions of metaphor, perhaps because the model recognizes that metaphor is not simply aesthetic ornament but a fundamental strategy of thought.

Yet the model does not provide a complete tool set for literary analysis. Even with the many-space model and the compositional nature of language accounted for, the poem has something to say about cognition that is not derived from any of these tools of analysis. In
general, the poem implies that good days are those when cognition works naturally and effortlessly to yield precisely what one needs: "every choice is clear," and every location gives "its necessary drop of honey." This thought pushes us away from the mechanisms of cognition to its purposes and direction, something that cognitive science has more difficulty explaining.

Oddly, what the poem says about cognition is achieved by violating the limits in which cognitive processes are usually most reliable and productive. Literature breaches ordinary cognition. For example, take the closing lines, "every word glows /with exactly the wanted /intensity of /tilt." This passage does what we now see other image clusters in the poem do: it blends from domains so different that the blended space can be entertained only as a fiction. Air blossoms, waves sound like French horns. The gaps between the what is possible in the everyday world and what happens in the line stir the mind: waves only remotely sound like a brass instrument, but the mind can savor, in a fleeting way, the overlap of wave and French horn. The concluding line, for final effect, stretches the pattern of disrupted ordinary cognition even further: we have domains of words, glowing light, and spatial orientation in "tilt," with overtones of angular readiness. In some ways, it is an impossible blend. Impossible, yet indicative of the poetic nature of cognition itself. For those who remember pinball games, the word "tilt" recruits an added domain of corrupting recreation.

Reuven Tsur holds the opinion that literature works by making ordinary cognition break down; it then exploits that breakdown for other effects (1992, 3–4). Ellen Spolsky comes from a different angle: literature is just one of many attempts to create coherence out of cognitive processes that are already full of gaps and ruptures. In her account, the modular mind can't fully translate information in one domain or module (say, smell or motion along a path) to every other domain or module, so cognition is characterized by incompleteness. Cognition is a patchwork of redundant systems working to provide complete information. The system is clunky, but it works better for shooting an arrow than building coherent understanding. Literature strives for coherence, but as in the word that glows with intense tilt, poetry reminds us that many domains don't map very well, and none of them map completely. If they did, we would not need to achieve knowledge by mapping. There would be uniformity and integration instead. Cognitive linguistics gives us understanding of the mechanisms of meaning. Poems expose these mechanisms, and in so doing, show us the ruptures and breakdowns. As Spolsky says, "the mind itself can hurt you into poetry" (1993, 2, 5–6).

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Peircean Patterns of the Christ Story and the Analogous Manifestations in Popular Narrative

Jessica Young

Of all the ways to retell a story, an analogy is perhaps the most beautiful and memorable. There are aspects of a well-known story which, when retold in creative analogy, become new discoveries. Behind all the details of a story, details that can be altered in an analogy, lies a pattern. This pattern stays the same whether in the straight telling of a story or in an analogous telling of the story. The story of Jesus Christ is not only the greatest story ever told but probably the one most often retold by analogy.

When I was in the eighth grade, *The Hobbit* (Tolkien, 1966.) was required reading for my literature class. During class discussion, my teacher began expounding on the nature of the Christ Story depicted in the book. It bothered me that the only evidence given was coincidence or various symbols, but there was no pattern to necessarily match the analogy to. And so began my quest for the underlying pattern of the Christ Story.

**BACKGROUND**

**Peircean Pattern**

It was not until I began studying the philosophies of Charles Sanders Peirce that I found a semiotic pattern that began to prove itself in many different analyses. Peircean patterns are based on triads and truth relationships. There are three corners and three sides, each having a specific relationship to one another. The upper left corner of the inverted equilateral triangle is defined as representing “firstness,” the apex (bottom) corner is “secondness,” and the upper right corner is “thirdness.” Just as the mixing of two primary colors produces a secondary color (yet still distinctive in its own right), the sides of the triangle are defined as combinations of the two corners on the ends. For example, the side between firstness and secondness is representative of a secondary category labeled “firstness of secondness.” The remaining sides are defined in the same manner (see figure 1).

This is not merely a diagram in which to insert random or even progressive elements. Just as the sides and angles in geometry have

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**Figure 1. Peircian Pattern**

<table>
<thead>
<tr>
<th>Firstness</th>
<th>Fitness of Thirdness</th>
<th>Thirdness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–1</td>
<td>1–3</td>
<td>3–3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Firstness of Secondness</th>
<th>Secondness of Thirdness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1–2</td>
<td>2–3</td>
</tr>
</tbody>
</table>

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DLLS 2000
Figure 2. Peircian Categories

Peircian Categories

The pattern doesn’t operate by simply filling these categories and trying to establish geometrical and logical relationships. Each of the categories, according to Peirce, has a particular semiotic significance. This is to say that each category is representative of a specific idea, and it is actually these ideas that form the categories and the resulting geometric relationships (see figure 2).

The idea behind firstness is that of potential. It is a primary starting place on the diagram and represents everything that is the initial. Anything of chaos, birth, sensation, or beginning should be placed here. Secondness is reality. It is the category of conflict, that which stands between what one could be and what one is to become. It is also the idea of the physical world. Thirdness is defined by resolve. It is the goal, the evolutionary end, the fulfillment of the truth represented in the triad diagram. These are the basic ideas behind the three basic categories.

The secondary ideas, or those which fall on the sides, are not only progressive from corner to corner counterclockwise but are both conglomerates of the two end corners and inverses of the opposite corner. Firstness of secondness is a category of identity between potential, where all things are possible, and reality, where things are being proved and actual. Identity is the place of discovery and defining the bounds and bases. It is inverse to resolve, where everything has been proven, and the identity is confirmed. Firstness of thirdness is the category of law or pattern. Law is a combination of what is possible and what should be. It is inverse to reality and
therefore has very little to do with the application of the law. The relationship between firstness of thirdness and secondness is very much the same as that between theory and application. Secondness of thirdness is the idea of test or sacrifice. It falls between the conflict or reality of the situation and the resolved outcome. It is inverse to the idea of potential. That which was possible is being proved in secondness of thirdness.

It should be noted that this is an evolutionary diagram and therefore will not continue to cycle with the same nodes. It initially begins with potential and cycles through to resolve and then begins again using law as the node of firstness because it has already been established by the existence of resolve. This pattern then repeats itself again and again, coming exponentially closer to complete resolve (this is shown by the smaller triangle inside figure 2).

**NARRATIVE PATTERN**

The Peircean pattern holds very solidly for narrative pattern. The firstness category is the event background, the point where the elements of the story become important enough to be a story. Something of potential, of endless possibilities, is introduced and the narrative is begun. (From this point on, the secondary categories on the triad will be written as 1-2, 1-3, 2-3.) Next, the characters are introduced and their identities
Figure 6. The Christ Story, Pattern A

Mary is told of the child she will have: Luke 1:31-32

BIRTH

DEATH

Jesus Christ makes the atoning sacrifice for all mankind: John 19:30

Luke 1:31-32—"And, behold, thou shalt conceive in thy womb, and bring forth a son, and shalt call his name JESUS. And he shall be great, and shall be called the Son of the Highest."

John 10:30—"When Jesus therefore had received the vinegar, he said, It is finished: and he bowed his head, and gave up the ghost."

established. This is the 1-2 node on the diagram. It involves the narrowing of potential through the reality of the narrative’s universe, and the characters become clear through this narrowing (see figure 3). The conflict of the narrative fits at secondness. This is the opposition of the story, the “good verses evil” that is necessary for there to be any story to tell. This is the most critical part of the narrative pattern. Without conflict of some type, there is nothing important to tell. 1-3 is manifest in the narrative pattern by being the law or pattern that must be followed or fulfilled. It is directly related to the actual events and the conflict. Most often, law is evidenced by some foretelling, prophecy, or anomaly that directly concerns the opposition and reality of the story. The 2-3 node is the sacrifice or test of the narrative. This is the point where the characters prove themselves, the “do or die” (and sometimes both) of the story. The potential of all involved elements is actively proved. Narrative pattern and Peircean pattern hinge on this event. Without it, there can be no resolution to the conflict of the story. The battles must be fought, the prices must be paid, and the choices must be made in order to reach the goal or resolve. The finale of the narrative pattern is the denouement or outcome. This is thirdness and the goal of the evolutionary pattern. Character closure is a part of this category.

Just as the pattern is not necessarily finalized at the resolve, so it is in the narrative. Some things are resolved, and then the new firstness node becomes the law or pattern to be followed. Because of this, the pattern for narrative can cycle several times through tests and minor resolves and patterns until the finale (see figure 4).

THE CHRIST STORY

Basic Pattern

The narrative pattern is found in all complete narrative. However, there are specific types of narrative, and the Christ story is one of these types. It, too, follows a Peircean triad (see figure 5). From his birth (1) to the growing knowledge of who he is (1-2), to the conflict surrounding his entire existence (2), which was prophesied (1-3), to his atoning sacrifice (2-3), to his resurrection and ascension (3), this particular narrative pattern is expanded even further when the text from which it is drawn is examined.

Pattern A

The three corner-side relationships are distinctive from one another and will be discussed as such. The firstness-
Figure 7. The Christ Story, Pattern B

He affirmed who he was after his resurrection:

He knew who he was: John 4:26

John 4:25–26—"The woman saith unto him, I know that Messias cometh, which is called Christ: when he is come, he will tell us all things. Jesus saith unto her, I speak to thee am he."

Luke 24:25–27, 31—"Then he saith unto them, O fools, and slow of heart to believe all that the prophets have spoken: Ought not Christ to have suffered these things and to have entered into his glory? And beginning at Moses and all the prophets, he expounded unto them in all the scriptures the things concerning himself."

"And their eyes were opened, and they knew him; and he vanished out of their sight."

The firstness of secondness–thirdness axis (see figure 7) shows the relationship between Christ's growing identity, knowing who he is and what he is to do; and the closure of his identity, the fulfillment of that knowledge. At the 1-2 node, Christ has a growing knowledge of who he is, and in John 4:25–26, "The woman saith unto him, I know that Messias cometh, which is called Christ: when he is come, he will tell us all things. Jesus saith unto her, I that speak to thee am he."

Contrast this to the closure of his identity with the two men on the road to Emmaus (Luke 24:25–27, 31): "Then he said unto them, O fools, and slow of heart to believe all that the prophets have spoken:

Ought not Christ to have suffered these things and to have entered into his glory? And beginning at Moses and all the prophets, he expounded unto them in all the scriptures the things concerning himself. And their eyes were opened, and they knew him; and he vanished out of their sight."

It is interesting that in this category of the pattern (thirdness), all other ideas are contained: the foretelling, the coming, the identity, the suffering, the sacrifice, and the final glory. This is further evidence for the evolutionary nature of the pattern.

Pattern C

The final pattern of the Christ story is that of the firstness of thirdness—
Figure 8. The Christ Story, Pattern C

The Analogy

There is in all things a pattern that is part of our universe. It has symmetry, elegance, and grace—those qualities you find always in that which the true artist captures. You can find it in the turning of the seasons, in the way the sand trails along a ridge, in the branch clusters of the creosote bush or the pattern of its leaves. We try to copy these patterns in our lives and our society, seeking the rhythms, the dances, the forms that comfort. Yet, it is possible to see peril in the finding of the ultimate perfection. It is clear that the ultimate pattern contains its own fixity. In such perfection, all things move toward death.

—From “The Collected Sayings of Maud’Dib” by the Princess Irulan (Herbert, Dune, 1965, 380)

Now that the patterns of narrative and the Christ story have been established, the question becomes one of establishing the existence of an analogy by confirming the patterns. As Frank Herbert writes in Dune (1965), these patterns are copied in our lives and society, including our narrative. The peril in finding the ultimate perfection (or what we find when we locate the perfect pattern) is that it is fixed (as the categories are fixed), and “all things move toward death,” or there must be a progression in the pattern toward a sacrifice or death of some type. This is the truth of the Christ-story analogy. It must follow the established pattern and lead toward a death.

There are two types of analogy. One is exact analogy, where there is a one-to-

secondness axis (see figure 8). As was mentioned before, this is best understood as that relationship between theory and actual application. The 1-3 node is the prophesy of the life of Christ and all that would come. Isaiah 53:4 says, “Surely he hath borne our griefs, and carried our sorrows: yet, we did esteem him stricken, smitten of God, and afflicted.” The inverse of prophesy is the realization of it, and Matthew 26:39 states, “He went a little further, and fell on his face, and prayed, saying, O my Father, if it be possible, let this cup pass from me: nevertheless not as I will, but as thou wilt.” Christ fulfilled the prophecies that every prophet ever wrote concerning him. The fulfilling of these given patterns came through great opposition both in himself and in the universe around him (fulfilling of 1-3 patterns through secondness opposition).

Isaiah 53:4—“Surly he hath borne out griefs, and carried our sorrows: yet, we did esteem him stricken, smitten of God, and afflicted.”

Matthew 26:39—“And he went a little further, and fell on his face, and prayed, saying, O my Father, if it be possible, let this cup pass from me: nevertheless not as I will, but as thou wilt.”
one correlation between the actual Christ story and the narrative presenting the analogy. In C. S. Lewis’s *The Lion, the Witch, and the Wardrobe*, the analogy is exact. The pattern is followed (see figure 9) with Aslan as the Christ figure. His coming was prophesied as was the end of winter (1-3). He came to Narnia (1), and as his presence was made known, his power grew (1-2). When Edmund was to lose his life (conflict—2), Aslan makes a deal with the witch to take his place and be sacrificed on the stone table (2-3). His resurrection and destruction of evil are the resolve (3) of the narrative. It is evident that the Christ-story pattern exists, but the evidence for the exact analogy is in the specific terms. There is a witch who is equivalent to a Satan figure; winter represents the death of the world before the saving sacrifice; the stone table represents the cross—the sacrifice made for the sons of Adam and the daughters of Eve. It is by these things and more that the analogy becomes exact. Exact analogies of the Christ story are the easiest to identify due to all the other elements present along with the pattern. However, if there are elements present that seem symbolic and similar to those of the Christ story, but the pattern is not present, it is a false analogy.

The second type is loose analogy. The pattern is present just as it is in an exact analogy, but the other easily identifying elements are missing. This allows for greater creativity in the narrative itself and can bring out details and possibility in the truth of the Christ story that may not have been clear in the straight telling.

I examined three such analogies for this paper. First was J. K. Rowling’s *Harry Potter and the Sorcerer’s Stone* (see figure 10). This is a children’s book that has recently been on the international best-seller list. When the story is examined and the Christ story identified, reasons for this are understood. As Herbert wrote, “We try to copy these patterns seeking . . . the forms that comfort.” No small wonder that a children’s book has gained such popularity. Our society seeks this particular pattern even if it is unrecognized and unconscious.

About a young boy who comes to discover that he is a wizard and how his life changes with this knowledge, *Harry Potter* contains all the parts of the triad. He has a telltale scar that allows people to recognize him as not just any wizard but one who was born to defeat the great evil (1-3). He has accidents with magic before he knows he’s a wizard (potential—

---

**Figure 9. The Lion, the Witch, and the Wardrobe**

<table>
<thead>
<tr>
<th>Christ figure: Aslan</th>
</tr>
</thead>
<tbody>
<tr>
<td>End of Winter fortold</td>
</tr>
<tr>
<td>Resurrection and destruction of Winter and the Witch</td>
</tr>
<tr>
<td>A willing death on the Stone Table</td>
</tr>
<tr>
<td>Deal with Witch: Aslan’s life for Edmund’s</td>
</tr>
<tr>
<td>Power is showing and growing</td>
</tr>
<tr>
<td>Coming to Narnia</td>
</tr>
</tbody>
</table>

---
Figure 10. Harry Potter and the Sorcerer’s Stone

Christ figure: Harry

“accidents” with magic

Discover what powers he has and what “house” he is from

Wakes up three days later—all is well

Fights to the end and then passes out

Conflicts with “He-who-cannot-be-named” over another’s life

Figure 11. Dune

Christ figure: Paul

A Boy is born instead of a girl

Prophesy

Three weeks later: wakes up as the Kwisatz Haderach

Dreams, gom jabbar, lineage

Drinking the Water of Life

Freedom vs. slavery

Dune, by Frank Herbert, also uses the “three” symbol. Paul Maud’Dib is the Christ figure (see figure 11), and he takes the Water of Life as a sacrifice for his people (2-3). Because he awakens three weeks later (3), he is the “Kwisatz Haderach” (Herbert’s term for Messiah). Just as with the Christ-story pattern, he was prophesied about (1-3), and there was something particular about his birth. A boy was born instead of a girl to his mother when she was told to have a girl (apparently, they can choose what to have). This is another symbol found in the Christ story. The Messiah had to be a man. This is Herbert’s way of both representing the firstness of the pattern and adding extra poignancy to the semiotic. Paul discovers his identity through dreams and tests that occur throughout the story (1-2) and is finally ready to face the conflict of the slavery of his people (2).

There are elements of the pattern that seem to be the most critical to the analogy: the potential of the Christ figure to actually make the sacrifice; the conflict,
Although directly involving the identity of the Christ figure, must be about the freedom of another individual or group of individuals; the resurrection of the Christ figure in some very definitive sense. Without any one of these elements, the pattern breaks down, and there is no Christ-story analogy.

The third narrative was the film *The Matrix*, written and directed by the Wachowsk brothers. It was an absolute box office phenomenon during 1999, and no one could really say why beyond the special effects. It is possibly due to the Christ-story analogy present. Neo is the Christ figure (see figure 12). It is interesting that still another symbol is present in this analogy which is often used by those who write narrative. The name *Neo* is an anagram of the word *one*. Often names are used in analogy to portray more about the figure and also to guide the audience to the patterns. *Christ* translated from the Hebrew is “anointed one.” Also in the movie were the names *Zion* (the city of people who are free and Neo is protecting) and *Trinity* (the woman who loves him and helps to make him whole). These elements alone are not enough to prove the Christ-story pattern. That is done through the narrative details. They do, however, add details and perspective just as the other

Figure 13. The Hobbit

Although direct involving the identity of the Christ figure, must be about the freedom of another individual or group of individuals; the resurrection of the Christ figure in some very definitive sense. Without any one of these elements, the pattern breaks down, and there is no Christ-story analogy.

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Figure 13. The Hobbit

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*There is no resolve to a resurrection.*

This is not a Christ Story. It appears to be an analogy to Beowulf. Merely following narrative pattern and having Good triumph over Evil doesn’t make a Christ Story. It is in the patterns.
symbols have been shown to do. And as before, a story consisting of only similar elements to the Christ Story is not an analogy. The pattern must be shown for the analogy to exist.

THE FALSE ANALOGY

Returning to The Hobbit, by J. R. R. Tolkien, the narrative is tested in the same way as the other stories. The teacher asserted that Bilbo Baggins was the Christ figure (see figure 13). There was prophecy about him being the thirteenth warrior (1-3?). This has potential on two levels. It could be the same as there being prophecy about Christ, and the number thirteen was a symbolic benefit (twelve disciples and Christ); but as the patterns demand, there was no conflict directly involving Mr. Baggins and the saving of another’s life through sacrifice to fulfill this prophecy. Secondly, the identity of Mr. Baggins did not lead him to a resurrection (1-2 : 3). The sacrifice in the story was made by the leader of the dwarves, Thorin, against a beast that was oppressing his people. There was no resurrection there either. Because all the categories did not progress and culminate at a resolve of a resurrection, there is no Christ-story analogy. This appears instead to be an analogy of the epic Beowulf. Although this is an excellent example of early narrative, merely following narrative pattern and having good triumph over evil will not fulfill the Christ-story pattern. And as was stated before, having symbolically similar elements but not following the pattern will not make a Christ story either.

CONCLUSION

The Peircean pattern is a triadic diagram devised to analyze and define truth. Narrative pattern fits this triad neatly, and further, the Christ story is beautifully expounded by it. Identifying an analogy of the Christ story can there-
Give Up the Ghost and Get the Spirit

Marvin H. Folsom

... Christ the Son, and God the Father, and the Holy Spirit, which is one Eternal God. (Alma 11:44)

As shorthand for “the Spirit of the Lord”, the third member of the godhead, we very frequently hear expressions such as “the Spirit”, “my Spirit”, “his Spirit”, and the phrases “teach/learn by the Spirit”, “feel the Spirit”, “get the Spirit”, “guided by the Spirit”, “the voice of the Spirit”. In this context, we never use the phrases “his Ghost”, “my Ghost”, “the Ghost”, “by the Ghost”, “the Ghost of God”, or “the Ghost of the Lord. We cannot use the noun Ghost by itself. We must add the modifier Holy, and we cannot use a personal or any other adjective as a modifier. We have only a few very specialized contexts where we use the full phrase “the Holy Ghost”; in the first article of faith: “We believe in God, the Eternal Father, and in His Son, Jesus Christ, and in the Holy Ghost”; in the baptismal prayer: “in the name of the Father, and of the Son, and of the Holy Ghost” (D&C 20:73); in the prayer at confirmation: “Receive the Holy Ghost”; and in two hymns: “Singing to Father, Son, and Holy Ghost” (Hymns 1985, 82) and “Praise Father, Son, and Holy Ghost” (242). It is also used commonly in the phrase “by the [gift and] power of the Holy Ghost”.

Let us take a look at the linguistic background leading up to the present circumstances. The pair of words Spirit/Ghost belongs to the many pairs of synonyms in the language of the King James Version of the Bible (KJV): charity/love, eternal/everlasting, just/righteous, etc. The first member of the pair stems from the Latin/(Norman) French influence in English (Latin spiritus > French esprit, English spirit). The second member of the pair stems from the Germanic/Anglo-Saxon component of English (OHG geist Du geest Eng ghost). In the KJV, the same Greek word, pneuma, was sometimes translated into the Latin/French word spirit and sometimes into the Anglo-Saxon word ghost. The single Greek word pneuma, occurring 385 times in the New Testament, was translated as follows in the KJV: Spirit 111; Holy Ghost 89; Spirit (of God) 13; Spirit (of the Lord) 5; (My) Spirit 3; Spirit (of truth) 3; Spirit (of Christ) 2; human (spirit) 49; (evil) spirit 47; spirit (general) 26; spirit 8; (Jesus’ own) spirit 6; (Jesus’ own) ghost 2; miscellaneous 21 (Folsom 1991, 10–16).

Of course the problem of near-synonymous pairs does not exist in modern foreign language Bibles (German, French, Spanish, etc.) because they do not have a dual-language tradition with near synonyms. The Romance languages uniformly have titles derived from Latin Spiritus Sanctus: L’Esprit-Saint (French), El Espíritu Santo (Spanish), Lo Spirito Santo (Italian). In the Germanic languages (German and Dutch) we find titles related to the word ghost: der Heilige Geist (German), De Heilige Geest (Dutch). In the English of the KJV, we have preserved both traditions to the present day: the Holy Ghost and the Holy Spirit.
The translations of the Bible in the historical precursors of present-day German had a similar problem in the ninth century. On the one hand, there was the phrase *der helago geist*, ‘the Holy Ghost’, from the Anglo-Saxon Christianization in the north and on the other hand, the phrase *ahma sa weihal*, literally ‘Spirit the Holy’, from the Gothic Christianization in the south. In the Weißenburg Catechism from the beginning of the ninth century, we find in the second article *ther infangar ist fona heiligemo geiste*, ‘who was conceived by the Holy Ghost’, and in the very next article, *gilaubu in Etum wahan* ‘I believe in the Holy Spirit’. In the course of time, the northern phrase *der Heilige Geist* completely replaced the alternate phrase in the south. Except for a couple of linguistic relics, this is the situation in modern religious English: *Holy Spirit* has virtually replaced *Holy Ghost* except in a few older religious texts and in a few archaic religious dialects.

How are these circumstances reflected in modern Bible translations? In a search of English Bible translations in electronic form (Bibleworks 4.0), only two translations—King James Version 1611 / 1769 and the Douay-Rheims American Edition 1899—used the phrase “Holy Ghost”. All the other translations used the more modern “Holy Spirit”. When I examined sample verses in additional translations not in electronic form, I found that they all used the phrase with the modern word *spirit*, and none used the archaic word *ghost*.

On the other hand, when I checked LDS conference addresses (Infobase 97), arranged approximately by decade (1897–1970), I found that the use of *Holy Spirit* has decreased steadily from 65% early on to 28% in the sixties. The numerous converts from various linguistic and religious backgrounds who spoke at the conferences clearly had a preference for *Holy Spirit*. Over the decades, practices mitigating against diversity—proofreaders, editors, committees, etc.—resulted in the ascendance of *Holy Ghost*.

In LDS hymns, the use of the title *Holy Ghost* is not as common as is the use of phrases with *Spirit*. In the hymns found in the 1997 Infobase file, there were six instances of “the Spirit”, one of the “Spirit of God”, thirteen of “thy Spirit”, two of “his Spirit”, and six of “the Holy Spirit”. The phrase “Holy Ghost” appeared only six times (17.6% as compared to 82.4% for “Spirit”).

I also examined the texts of the hymns in K. W. Osbeck’s, *Amazing Grace: 366 Inspiring Hymn Stories for Daily Devotions* (1990). There were ten examples (20.8%) of “Holy Ghost”, three in the phrase “Father, Son, and Holy Ghost”. On the other hand, there were thirty-eight examples (79.2%) of “Spirit”—only slightly higher than that in the LDS group. Because I examined each group as a whole, there is some overlapping; each contains some of the same hymns as the other.

There are only two occurrences of the word *phantasma* in the New Testament. Table 2 shows the corresponding words in twelve different translations of the Bible.

<table>
<thead>
<tr>
<th>Years</th>
<th>Holy Ghost</th>
<th>Holy Spirit</th>
<th>% Holy Spirit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1897–1899</td>
<td>76</td>
<td>141</td>
<td>65%</td>
</tr>
<tr>
<td>1900–1909</td>
<td>233</td>
<td>361</td>
<td>61%</td>
</tr>
<tr>
<td>1910–1919</td>
<td>362</td>
<td>404</td>
<td>53%</td>
</tr>
<tr>
<td>1920–1929</td>
<td>406</td>
<td>333</td>
<td>45%</td>
</tr>
<tr>
<td>1930–1939</td>
<td>237</td>
<td>184</td>
<td>43%</td>
</tr>
<tr>
<td>1940–1949</td>
<td>292</td>
<td>168</td>
<td>36%</td>
</tr>
<tr>
<td>1950–1959</td>
<td>409</td>
<td>220</td>
<td>35%</td>
</tr>
<tr>
<td>1960–1970</td>
<td>558</td>
<td>262</td>
<td>28%</td>
</tr>
</tbody>
</table>

Most have either *ghost* or *apparition* in Matthew and Mark. Only the King James Version and Revised Webster Bible (RWB) use *spirit*. Even the New King James (NKJ) has gone over to *ghost*. In Luke, where the word *pneuma* is used to
A closer look at the material in the Doctrine and Covenants shows an interesting pattern (see Table 4).

For some reason, for which I as yet have no explanation, Joseph Smith used *Holy Ghost* exclusively in the revelations recorded up to January 1931, but later he used both *Holy Ghost* and *Spirit*, sometimes in the same section.

When we look back at Elizabethan English, we find that forms derived from *ghost* were still used with the original meaning:

1. A ghostly confessor (reference to Friar Laurence in Rom/Jul III 3 49)
2. Ghostly father, adviser (priest, spiritual adviser)
3. Ghostly director, instructor (priest, spiritual instructor)
4. Ghostly counsel (spiritual counsel)
5. Ghostly day (day set apart for worship)

In present-day English dictionaries the word *ghost* has the following meanings:

1. The seat of life or intelligence
2. The disembodied soul (of a dead person)
3. Spirit or demon
4. A remote possibility

---

**Table 2. Use in Bible Translation**

<table>
<thead>
<tr>
<th>Translation</th>
<th>Mt 14:26</th>
<th>Mk 6:29</th>
<th>Luke 24:37</th>
</tr>
</thead>
<tbody>
<tr>
<td>KJV spirit</td>
<td>spirit</td>
<td>spirit</td>
<td>spirit</td>
</tr>
<tr>
<td>NIV ghost</td>
<td>ghost</td>
<td>ghost</td>
<td>ghost</td>
</tr>
<tr>
<td>NJB ghost</td>
<td>ghost</td>
<td>ghost</td>
<td>ghost</td>
</tr>
<tr>
<td>NAU ghost</td>
<td>ghost</td>
<td>ghost</td>
<td>spirit</td>
</tr>
<tr>
<td>RSV ghost</td>
<td>ghost</td>
<td>ghost</td>
<td>spirit</td>
</tr>
<tr>
<td>NRS ghost</td>
<td>ghost</td>
<td>ghost</td>
<td>ghost</td>
</tr>
<tr>
<td>NKJ ghost</td>
<td>ghost</td>
<td>ghost</td>
<td>spirit</td>
</tr>
<tr>
<td>DRA apparition</td>
<td>apparition</td>
<td>spirit</td>
<td>spirit</td>
</tr>
<tr>
<td>RWB ghost</td>
<td>spirit</td>
<td>spirit</td>
<td>spirit</td>
</tr>
<tr>
<td>YLT apparition</td>
<td>apparition</td>
<td>spirit</td>
<td>spirit</td>
</tr>
<tr>
<td>NLT ghost</td>
<td>ghost</td>
<td>ghost</td>
<td>spirit</td>
</tr>
<tr>
<td>NJB ghost</td>
<td>ghost</td>
<td>ghost</td>
<td>ghost</td>
</tr>
</tbody>
</table>

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**Table 3. Forms Used in LDS Standard Works**

<table>
<thead>
<tr>
<th>Form</th>
<th>Old Test</th>
<th>New Test</th>
<th>B of M</th>
<th>D&amp;C</th>
<th>PGP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holy Ghost</td>
<td>0/-50%</td>
<td>90/+21%</td>
<td>94/+15%</td>
<td>50/+10%</td>
<td>15/+3%</td>
<td>252</td>
</tr>
<tr>
<td>Holy Spirit</td>
<td>3/-43</td>
<td>4/-6</td>
<td>16/+13</td>
<td>21/+36</td>
<td>1/-0</td>
<td>46</td>
</tr>
<tr>
<td>Spirit of the Lord</td>
<td>26/-15</td>
<td>5/-8</td>
<td>40/+32</td>
<td>2/-7</td>
<td>1/-1</td>
<td>7</td>
</tr>
<tr>
<td>Spirit of God</td>
<td>14/-24</td>
<td>12/+8</td>
<td>20/+16</td>
<td>3/-4</td>
<td>4/+6</td>
<td>53</td>
</tr>
<tr>
<td>Spirit of Christ</td>
<td>0/-50</td>
<td>2/+25</td>
<td>2/+18</td>
<td>1/+10</td>
<td>0/-2</td>
<td>5</td>
</tr>
<tr>
<td>Holy Spirit of Promise</td>
<td>0/-50</td>
<td>1/-2</td>
<td>0/-22</td>
<td>7/+78</td>
<td>0/-2</td>
<td>8</td>
</tr>
<tr>
<td>Spirit of Truth</td>
<td>0/-50</td>
<td>4/+10</td>
<td>0/-22</td>
<td>12/+65</td>
<td>0/-2</td>
<td>16</td>
</tr>
<tr>
<td>Spirit of prophecy</td>
<td>0/-50</td>
<td>1/-11</td>
<td>17/+49</td>
<td>2/-2</td>
<td>2/+6</td>
<td>24</td>
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<tr>
<td>Spirit of revelation</td>
<td>0/-50</td>
<td>0/-15</td>
<td>9/+60</td>
<td>2/+8</td>
<td>0/-2</td>
<td>11</td>
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<tr>
<td>my Spirit</td>
<td>12/-31</td>
<td>3/-10</td>
<td>6/-13</td>
<td>40/+53</td>
<td>3/+3</td>
<td>64</td>
</tr>
<tr>
<td>His Spirit</td>
<td>4/-37</td>
<td>4/-2</td>
<td>18/+36</td>
<td>4/+3</td>
<td>1/+1</td>
<td>31</td>
</tr>
<tr>
<td>the Spirit</td>
<td>17/-43</td>
<td>99/+27</td>
<td>61/+4</td>
<td>55/+13</td>
<td>3/-1</td>
<td>236</td>
</tr>
</tbody>
</table>

For each standard work, the first number shown represents the number of occurrences for each form; the second number indicates the percentage of expected occurrences for a book of that size (according to the computer program).
Table 4. Use in the Doctrine and Covenants

<table>
<thead>
<tr>
<th>Holy Spirit</th>
<th>Month</th>
<th>Holy Ghost</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Apr 1829</td>
<td>Sec 8</td>
</tr>
<tr>
<td></td>
<td>Jun 1829</td>
<td>Sec 14, Sec 18 2x</td>
</tr>
<tr>
<td></td>
<td>Mar 1830</td>
<td>Sec 19</td>
</tr>
<tr>
<td></td>
<td>Apr 1830</td>
<td>Sec 20 9x +, 21</td>
</tr>
<tr>
<td></td>
<td>Jul 1830</td>
<td>Sec 25</td>
</tr>
<tr>
<td></td>
<td>Oct 1830</td>
<td>Sec 33 2x</td>
</tr>
<tr>
<td></td>
<td>Nov 1830</td>
<td>Sec 34</td>
</tr>
<tr>
<td></td>
<td>Dec 1830</td>
<td>Sec 35 3x, Sec 36</td>
</tr>
<tr>
<td></td>
<td>Jan 1831</td>
<td>Sec 39 2x +</td>
</tr>
<tr>
<td>2</td>
<td>Sec 45, Sec 46</td>
<td>Mar 1831</td>
</tr>
<tr>
<td>3</td>
<td>Sec 53, 55 2x</td>
<td>Jun 1831</td>
</tr>
<tr>
<td>1</td>
<td>Sec 72</td>
<td>Nov 1831</td>
</tr>
<tr>
<td>6</td>
<td>Sec 76 6x</td>
<td>Dec 1831</td>
</tr>
<tr>
<td>1</td>
<td>Sec 99</td>
<td>Feb 1832</td>
</tr>
<tr>
<td>2</td>
<td>Sec 88 2x</td>
<td>Aug 1832</td>
</tr>
<tr>
<td></td>
<td>Dec 1832</td>
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</tr>
<tr>
<td></td>
<td>May 1833</td>
<td>Sec 93</td>
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<td></td>
<td>Oct 1833</td>
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<td>Mar 1835</td>
<td>Sec 107</td>
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<td></td>
<td>Mar 1836</td>
<td>Sec 109</td>
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<td>Sec 121</td>
<td>Mar 1839, Sec 121 3x +</td>
</tr>
<tr>
<td>1</td>
<td>*Sec 124</td>
<td>Jan 1841</td>
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<tr>
<td>4</td>
<td>*Sec 132 4x</td>
<td>Apr 1843</td>
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<tr>
<td>21 total</td>
<td></td>
<td>Jul 1843</td>
</tr>
</tbody>
</table>

* = ... of promise 5x
+ = gift of ... 5x

5. One who ghostwrites
6. A faint image on TV screen or photographic negative
7. A red blood cell that has lost its hemoglobin

There is also a separate listing for the idiom "give up the ghost", meaning 'die'. The reference to the specialized meaning in the phrase Holy Ghost was not listed under the word ghost but as a separate entry under holy. Many speakers of English will also think of the related words aghast 'struck with overwhelming shock or amazement' or ghastly, 'dreadful, horrible, resembling a ghost'.

In our church experience, we are not unacquainted with vocabulary changes and innovations—Senior Cooperative Retrenchment Association 1870–1904, Young Ladies Cooperative Retrenchment Association, Young Men’s Mutual Improvement Association; block teaching > ward teaching > home teaching; recreation hall > cultural hall; gleaner > laurel; trekker > varsity scout; senior Aaronic > prospective elder, etc. Sometimes the meaning is made more precise, but often the vocabulary change does not change the intrinsic meaning. We may recall Shakespeare’s comment in Romeo and Juliet: “What’s in a name? that which we call a rose / By any other name would smell as sweet”. We will likely never sing “Praise Father, Son, and Holy
Spirit, because it does not fit the music. On the other hand, we cannot very well sing "Let the Holy Ghost guide.

Since I have been focusing on this aspect of our Mormon language, I have heard at least three instances of "the Spirit of the Holy Ghost". This seems to be the final stage in the global treatment of the phrase Holy Ghost as a title without any direct reference to the unembodied aspect of the personage, since it can be used in conjunction with the word Spirit without conflict. It seems to me that this neologism refers to the influence that emanates from the third member of the Godhead.

We may not realize that the Holy Ghost and the Spirit are referring to the same spiritual entity, and we may operate with two separate constructs, never associating the two. For me this is an even more compelling argument for clarifying the unified meaning by means of a single linguistic form.

It may be too much to expect an immediate acceptance of a change in the first article of faith or in the baptismal prayer, but we have already switched over to the Latin/French phrase in virtually every other environment. If we did begin systematically using only Holy Spirit, we would eliminate some confusion and fuzzy thinking, and we would also speak the same language as the rest of the English-speaking Christian world, not drawing attention to our archaic usage.

NOTES


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A Communities of Discourse Approach to Early LDS Thought

Grant Underwood

Over a half century ago, Herbert Butterfield (1931, 11–12) composed a classic essay entitled, The Whig Interpretation of History. Therein, he described the distortions that occur when historians impose a rigid point of view on their study of the past. Such an approach, he warned, constrains the historian to be “vigilant for likenesses between past and present, instead of being vigilant for unlikenesses.” And it is the elucidation of unlikenesses that Butterfield felt was the chief aim of the historian. Given the nature of Mormon theological claims, it is understandable why many doctrinal treatises tend to be “vigilant for likenesses.” Yet, as Butterfield has pointed out, this is not good history, nor is it good theology. If we believe that revelation and understanding come “line-upon-line,” then we can expect some unlikenesses with the past. With the aid of a methodological tool known as “communities of discourse” we will examine several unlikenesses. In the process we will gain a more nuanced understanding of Latter-day Saint thought in the 1830s and come to understand how that portrait honors our Heavenly Father.

I am a historian and have a special interest in what the historical profession calls “intellectual history.” This is not the history of intellectuals but the history of what comes from human intellects, or in other words, the history of thought. As a cohesive field within academia, intellectual history usually traces its beginnings to Arthur Lovejoy and the Johns Hopkins University–based History of Ideas Club in the 1920s and 1930s. The members of this group were interested primarily in the “great books” and grand ideas that have shaped western civilization. Their work amounted to biographies of ideas with little attention paid either to the personal or social contexts in which those ideas were articulated. In the second half of the twentieth century, such an approach fell increasingly out of favor. It seemed that Lovejoy and the “history of ideas” school viewed ideas as “autonomous abstractions which, in their self-propelled journeyings through time, happened only accidentally and temporarily to find anchorage in particular human minds” (Collini 1988, 106). Leading the revolt against such ahistorical readings were scholars like Quentin Skinner, John Dunn, and J. G. A. Pocock, who argued that to properly understand both the words an author used and what he was using them to say—their illocutionary force—required the meticulous reconstruction of the thought world of that particular time and place. This alone would identify the repertoire of possible meanings which the author could have drawn upon. Elsewhere, the communal quality of communication was being emphasized by sociolinguist Dell Hymes with his notion of “speech community,” by literary critic Stanley Fish with his idea of “interpretive communities,” and through the concept of “discourse community” recently discussed in composition studies.

Today’s intellectual historians have learned from all of this to pay special
attention to historical “communities of discourse.” As they use the term, a community of discourse is a group of people who share a common purpose or who confront a common question and who have developed an identifiable set of language conventions for their conversations with one another. A community of discourse does not necessarily imply a shared physical or even social space. The commonality is the shared intellectual concern. In time, an entire language or “discourse” grows up around that particular interest. Examples of communities of discourse relevant to the study of Mormonism would include “millenarianism” and “primitivism” in the nineteenth century, and “success” philosophies and “family values” in the twentieth. To the discerning, the ideals, logic, and linguistic conventions of these “languages” are apparent in Mormon discourse (Hughes & Allen 1988, Hughes 1988, Underwood 1993). Being attuned to the relevant contemporary communities of discourse will not only result in a heightened awareness of how much the Saints shared with the world around them but, crucially, will also lead to a better appreciation of where and how they differed.

Consider, for instance, the relationship between the nineteenth-century “antitrinitarian” community of discourse and early Latter-day Saint doctrine. Prior to crucial clarifications in the final years of Joseph Smith’s life, Latter-day Saint comments about the nature of God had much in common with the popular antitrinitarianism of the Stone-Campbell Christian movement, the Hicksite Quakers, and even the Universalists. This particular subset of nineteenth-century Christians was endeavoring to combat the dominant notion of the three-in-one God who is everywhere yet nowhere. They not only argued that God was separate from Christ and the Holy Spirit but that he had his own body. While struggling to comprehend the earliest Mormon views of God, historians have sometimes been tripped up by wording which seemed to anticipate later Latter-day Saint developments but which was actually part of this contemporary popular antitrinitarianism.

The classic case in point is the word body. Mormons have long assumed that an affirmation in early LDS literature that “God has a body” implied flesh and bones, but antitrinitarians actually used the phrase to refer to a spiritually corporeal deity. Here are some samples from non-Mormon, antitrinitarian preachers:

[William] Kinkade has a chapter of fifteen pages to show that God has a body like man. [Jabez] Chadwick says he is “prepared to defend” this sentiment; and Elder G. Fancher says, “God has a body, eyes, ears, hands, feet, & c., just as we have” . . . Kinkade says, “ears, hands, and eyes are part of an intelligent ruler, and if God has none of these he cannot hear, handle, nor see us “ (Mattison 1846, 44).

How similar these sound to Latter-day Saint expressions! “A God without body or parts,” wrote Mormon Apostle Parley P. Pratt (1838, 31), “has neither eyes, ears, or mouth, and can neither see, hear, nor speak.” Therefore, Pratt declared, joining other non-Mormon antitrinitarians in his affirmation, “we worship a God who has both body and parts: who has eyes, mouth and ears, and who speaks when he pleases . . .”

What is lost on modern Mormons, however, is that these remarks had reference to a spiritual body not a physical body. One prominent study, for instance, quotes the same 1838 statement by Parley Pratt and hails it as “the first printed description in Mormon sources of an anthropomorphic, corporeal God,” and by “corporeal” the author means “a tangible body of flesh” (Allen 1980, 50, 48). Upon closer examination, we can see that this is not what Pratt meant. Actually his words reflect a nineteenth-century community of religious discourse heretofore unexplored by Mormon historians. Two
years later in a tract written to defend Mormonism, Pratt declared: “Whoever reads our books, or hears us preach, knows that we believe . . . that the Son has flesh and bones and that the Father is a spirit.” Lest his opponent misunderstand, he continued,

but we would inform Mr. H. that a personage of spirit has its organized formation, its body and parts, its individual identity, its eyes, mouth, ears, & c., and that it is in the image or likeness of the temporal body, although not composed of such gross materials as flesh and bones (1840, 9).

Unaware of early Latter-day Saint participation in this particular community of religious discourse, it is understandable how those accustomed to the fuller understanding that would soon be shared have misconstrued the meaning of 1830s Mormon references to God’s “body.”

Erastus Snow was another who participated in that community of discourse before the Prophet explicitly imbued the term “body” with fleshly corporeality in 1840s Nauvoo. His 1840 pamphlet-length reply to the Pennsylvania antagonist, Truman Coe, makes crystal clear what early Mormons of antitrinitarian background meant (and did not mean) when they spoke of God having a body. Snow begins his discussion by posing a question that is startling because it is the unambiguous opposite of what modern Mormons would expect him to be asking. “What Mormon, understanding our doctrines,” queries Snow, “ever said that God the Father had flesh and bones? It is truly diverting to see you make so much noise, in trying to destroy a building of your own make, and shooting so much at a mark you have set up yourself, but if you had ever read our books it would have saved you all that labor.” Snow then quotes from the fifth Lecture on Faith:

The Father is a personage of spirit, glory and power. . . . Your long bombast about the God of flesh and bones, reminds me very much of my father’s old buck making a furious attack upon an old hat, which he supposed contained a man’s head. Does it necessarily follow that because God is a spirit, possessing universal knowledge, that spirit has no form, shape, or bodily appearance as you would have it? *Vice versa:* Does it necessarily follow that because, as we affirm, he has a form and bodily parts, that form is composed of flesh and bones? Does not Paul say there is a natural body, and also a spiritual body? According to your logic, because your shadow resembles your body, it must be the body itself; or will you deny the existence of spirit altogether? That God has a *form* is evident from Philip. 2:6; speaking of Jesus “who being in the form of God, thought it not robbery to be equal with God.” (1840, 6)

The problem may be that both sides are failing to locate Coe’s expression within the community of discourse to which it belongs. “Material” did not always mean “fleshly.” An “immaterial being” could also be a spiritual being since “all spirit is matter,” an idea not unique to the Mormons. In support of this reading, it is noteworthy that Coe uses the discursively meaningful phrase “body and parts” and comments on the “size and shape” of God rather than on the more radical prospect of a deity “with hair on his arms,” which in the eyes of Coe’s audience would have made Mormonism appear to be even more the unorthodox “gust of Fanaticism” he claimed it to be. Still, it remains to be demonstrated. If further contextual study does not bear out this reading, then Coe’s use of “material” as fleshly should be seen as the same kind of anti-Mormon distortion that Pratt and Snow were combating when they made their comments quoted above. What won’t do is to use Coe as the sole contemporary support for the claim that Mormons in the 1830s believed God had a body of flesh and bones. If such were the case, how likely is it that Pratt and Snow, two of Mormonism’s best informed advocates, would either be
oblivious to or explicitly opposed to what was supposedly a commonplace Latter-day Saint teaching?

As surprising as such comments seem to Mormons today, we can be understanding of these early convert Saints when we stop to consider the communities of Christian discourse from which they were in the process of emerging. Christianity had inculcated in their minds a respect for Spirit as a celestial substance. From that perspective, to affirm that Heavenly Father's body was composed of such supernal material was to honor him and praise his transcendent power. Traditionally, Christianity associated flesh with mortality and disparaged it for its weakness and imperfection. To envision the perfect and almighty God entabernacled in such a substance was beyond their comprehension.

Only later in the Nauvoo period, when the Prophet was able to lay before this group of converts the grand vision of eternal progression and the glorious truth of how literally and fully humans were children of God with the potentiality of becoming like their Celestial Sire, could the doctrine be comprehended. Perhaps it is the cumulative effect of the subsequent 150 years of rejoicing in this reality, along with years of missionaries combating John 4:24, that makes it hard for us to peel back our assumptions and realize that there was a time before so wondrous a truth was comprehended among the Saints. In the 1830s, however, it was revolutionary enough to argue that God the Father was separate and distinct from the Son and that he actually had a body, albeit Spirit, rather than being the incomprehensible essence or omnipotent force filling the universe that some other Christians assumed. When we pause to consider it, the nature of our Heavenly Father, the God of the Universe, is indeed so awesome that even today who would dare say they have a complete comprehension of his physiology?

Allowing me to offer two other examples of how a communities of discourse approach to Latter-day Saint thought helps us better understand some first-stage understandings among the Saints. Both in the early sections of the Doctrine and Covenants as well as in contemporary church literature, the word "apostle" connotes function more than position. It was in fairly common use prior to the 1835 call of the first Quorum of the Twelve and did not then refer exclusively to that group. In the September 1832 revelation on priesthood (Doctrine and Covenants, Section 84), the Lord addresses not only the Prophet Joseph Smith but also "six elders" present: "as I said unto mine apostles, even so I say unto you for you are mine apostles" (Doctrine and Covenants 84:64). The extended table of contents found in the 1835 Doctrine and Covenants references this passage with the words "elders called as the ancient apostles." In the New Testament, based on the Greek verb apostello (to send), an apostle is literally "one who is sent," an envoy, a messenger, in short, a missionary.4 This is the usage that had long been dominant in the larger Christian community of discourse. Not surprisingly, it was the meaning carried into the Church by the first Latter-day Saint converts.

Various contextually sensitive priesthood studies have confirmed this usage for the period prior to the 1840s. Following the Twelve's successful mission to England in 1840-41, the Prophet elevated them to the number two governing body of the Church. Reflecting that enhanced role, the term "apostle" came to be exclusively applied to the Twelve, but such was not the case prior to that time.5 In the 1830s, the Doctrine and Covenants table of contents entry for Doctrine and Covenants 20:38-44, which describes the duties of an elder, could be worded "duty of apostles and elders." The paragraph (they didn't uses verses then) begins, "an apostle is an elder, and it is his calling to. . . ." In the earliest
years the two terms were generally synonymous.

A final example of a communities of discourse approach to early Latter-day Saint thought is the understanding that the first Saints had of confirmation. From the beginning, the Saints were instructed to confirm by the laying on of hands, but the connotations of that act are more fully unlocked by attending to its linguistic context. In two places in the Doctrine and Covenants, the expression “confirming the church(es)” is used. Today Latter-day Saints speak of confirming members of the church, but not of confirming a, or the, church. “Church” is used almost exclusively to refer to the overall organization, not to its constituent congregations. Yet the Lord told Joseph to confirm “the church at Colesville” (D&C 26:1). This actually reflects the older New Testament usage where ekklesia or “church” literally meant a congregation or an assemblage. Moreover, the way the early Saints occasionally phrased it mimicked the King James rendering of Acts 15:41 where Paul and Silas travel “through Syria and Cilicia, confirming the churches.”

Additional insight is gained by noting that other translations of the Greek word episterizo, rendered as “confirming” in the King James Version, include “strengthening,” “establishing,” and “consolidating.” This hints at a richer understanding of the term “confirm” in the 1830s. To confirm someone was more than to ceremonially affirm their membership in the Church. The link with the New Testament suggests that the 1830s usage retained the rich original connotation of confirmation as a means of spiritually strengthening and establishing the Saints through the conferral of the Holy Ghost. What happened when hands were laid on the head of a newly baptized convert was not the bestowal of two separate gifts—formal membership status and the gift of the Holy Ghost—but rather a single gift, which was expected to open the door to spiritual strength and stability.

What this presentation has sought to do is take a closer look at how the beautiful monarch butterfly of the restored gospel gradually emerged from the cocoon of contemporary Christianity. In doing so, the scholarly methodology known as “communities of discourse” has provided a helpful magnifying glass through which to better scrutinize the miracle of divinely guided growth. I wish to close with a few remarks to Latter-day Saints who assume that complete doctrinal understanding was present from day one in the Church, that throughout Latter-day Saint history, church leaders have always said and meant exactly the same things when discussing doctrine. This is neither a necessary nor a particularly accurate model of understanding God’s dealings with his children. To modify our metaphor a bit, we can more understandingly praise God’s miracle in the creation of human beings by better understanding the details of their embryonic development, birth, and postnatal growth. So it is with the growth of the Church and its doctrinal understandings. We do not expect—indeed much of the wonder of life would be lost if it were so—that humans or the Church sprang full-grown from the hand of God.

Testimony can be deepened by attending to our own Latter-day Saint community of discourse, the “line-upon-line” principle. This valuable insight allows for a gradual unfolding and refining of doctrine based on both human capacity and divine design. The more it is studied, the more we realize the naivety of intersecting our past at any given point in time and expecting to hold the Church accountable for the finality of all views there discovered. Indeed, to pursue Paul’s metaphor, the Church is like a body, and all bodies go through successive stages of development from infancy to adulthood. A wise and loving father does not immediately correct all his children’s mistaken notions nor attempt to teach them all truth at once. Rather, he
closely monitors their development, adding, subtracting, and refining until they reach maturity. Would a perfect Father in Heaven be less wise? Continuous revelation is merely his method, the “light that shineth more and more unto the perfect day.”

As a Mormon historian who for many years has closely studied Latter-day Saint thought, I am profoundly impressed with how patient the Lord is, how he treats his chosen servants not as puppets or pawns, but honors their agency and understanding and teaches them, according to the Doctrine and Covenants, “in their weakness, after the manner of their language [cultural as well as verbal] that they might come to understanding” (D&C 1:24). If here and there history isn’t quite as neat or dramatic as we may wish it to be, let us be grateful. It is a witness that a loving Lord, as consummate teacher and caring father, has been more concerned with dealing wisely with his earlier servants than he was with how those dealings might later look to some of his children. As we would hope, God places people, his children, above image. Let us be careful that we do not unwittingly cherish, even worship, a particular construct or image of the past more than we do the living Lord, whose historical ways are not always our ways, nor whose thoughts are our thoughts. Let us rejoice in the miracle of growth, spiritual as well as physical.

NOTES

1. The influence of relevant communities of discourse on Mormon belief in this century has yet to be teased out though such influences are regularly suggested. Relatively little Mormon intellectual history from any angle of access has been done for the twentieth century. A noteworthy exception is the recent discussion of the influence of Anglo-Israelism on Latter-day Saint view of race by Armand L. Mauss (1999) and Arnold H. Green (1999).

2. Dan Vogel (17-33) cites several representatives of this “community” but neither recognizes them as such nor realizes their relevance for explaining Latter-day Saint understandings of God’s “body.”

3. In 1836, Truman Coe, a Presbyterian minister and former Kirtland resident, wrote that Mormons believed “that the true God is a material being, composed of body and parts; and that when the Creator formed Adam in his own image, he made him about the shape and size of God himself.” See Milton V. Backman (1977). Since Backman reprinted this statement in 1977, it has been interpreted by some as proof that the earliest Mormons knew that God had a body of flesh and bone while others, realizing that the Saints generally did not hold such beliefs until the 1840s, dismissed Coe’s statement as distortion. For a view of those among the former, see Backman (1977, 350) and Robert Millet (1990, 223–28). For a view of those adhering to the latter position, see Allen (1980, 49–50).

4. A comprehensive survey of the extensive literature on the meaning of apostolos can be found in Francis H. Agnew (1986).

5. Two recent examples are D. Michael Quinn (1994) and Prince (1995).

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The Grass Does Not Grow Greener Still: Word Replacement in “Give, Said the Little Stream”

Peggy Worthen

Those who are familiar with the children’s song “‘Give,’ Said the Little Stream” and know the phrase “I’m small I know but wherever I go, the grass grows greener still” may be surprised to learn that in the current edition of the Children’s Songbook, it is not the “grass” that grows greener still, but the “fields” (1989).

When I first heard this, I was surprised. In fact, I did not believe it. To verify this information, I looked in the Children’s Songbook. Sure enough, it reads “fields.” My first impression was that the songbook’s publisher, the Church of Jesus Christ of Latter-day Saints, had changed the phrase for some reason—a practice that is not unheard of. In order to determine when and why this word substitution had been made (someone suggested it was because the Church was concerned that “grass” had taken on the slang meaning of marijuana), I referred to an older version of the songbook. To my surprise it reads “fields” as well. Upon checking all the former songbooks back to the 1929 edition, I discovered that not one of them use the word “grass”; in each of them it is “fields” that the little stream makes greener.

While there had indeed been a word replacement in the way the song was commonly sung, it became clear that there had been no formal word replacement made by the Church. Somehow, at least some members of the Church had themselves made an informal word replacement over the years.

To try to determine how widespread this informal word replacement is and why it has occurred, I designed a survey which was administered randomly to members of the Church in various parts of the United States. The survey asked respondents to fill in the blank in the following line from “Give, Said the Little Stream”: “I’m small I know, but wherever I go, the ___ grows greener still.” The survey then requested various bits of demographic information (such as gender and age) and asked questions about where, when, and how respondents had learned the song. While the survey was not complete enough to provide definitive results, it did provide some interesting information that led to some preliminary thoughts about why the word replacement occurred.

First, how widespread is the misconception that the correct word is “grass” and not “fields”? Of the 146 who responded to the survey, 120 (or 82 percent) indicated that the word was “grass”; 23 (or 16 percent) indicated it was “fields” and 3 (2 percent) gave another answer (see table 1). Thus, it seems clear that a fairly significant word replacement has occurred over the years.

A review of the other data raised several other interesting points. One surprising result is that there is very little correlation between learning the song from the songbook and learning it correctly. Of the 36 respondents who indicated that they had learned the song directly from the songbook, 27 (or 75 percent) stated that the word was
“grass” and not “fields” (see table 2). One possible explanation for this rather curious result may be that the respondents honestly thought they had learned the song from the songbook, when in reality they had not. A more likely explanation is that the respondents really did learn it from the songbook, but later fell into the word replacement trap for other reasons. While this may sound far-fetched at first, a discussion with a noted LDS songwriter convinced me that word replacement occurs much more frequently than one might at first imagine.

Songwriter Janice Kapp Perry told me that she experienced a case of word replacement. In her song “The Test” there is a phrase that says “Help me see, if you understand, why doesn’t He who healed the lame man come with healing in His wings?” One day, after this song had been published and recorded, she sang it for an audience; after she was finished a woman commented on the change she had made in the song. Perry replied that she had not made any changes. The woman pointed out that instead of singing the word “wings,” Perry had sung the word “hands.” The woman was right. Perry had inadvertently sung “hands” instead of “wings” because “hands” rhymes with “understand” and sounds better. Now whenever she sings the song she intentionally sings “hands” in hopes that others will start singing it that way, too. Perry changed a word in performance without realizing it, because the word rhymed and it came naturally to her. Perry’s experience shows that even the author can unconsciously engage in word replacement when other linguistic factors are at work. In her case, it was the rhyming scheme that proved to be so attractive. In the case of “Give, Said the Little Stream,” the word replacement may have arisen from the “allure of alliteration.” “Grass grows greener” is simply more pleasing to the ear, easier to say, and more likely to be remembered than “fields grow greener.”

This may have an especially strong influence on Primary-age children. It seems that they are much more adept at learning and remembering alliterative verses—such as “Peter Piper picked a peck of pickled peppers” or “she sells seashells by the seashore”—than a plain verse that uses no alliteration. This explanation also draws support from one of the three survey responses that gave an answer other than “fields” or “grass.” The respondent indicated that it was the “ground” which “grows greener,” a response which seems to be prompted almost exclusively by the power or allure of alliteration.

A third possible explanation is suggested by survey data focusing on another way in which respondents learned the song. Eighty-six percent of those respondents who had learned the song through visual aids, rather than from the songbook or from another person, learned the word “grass” instead of “fields” (see table 2). That is eleven percent higher than those who learned it from the songbook. A visual aid showing a green field may easily be mistaken for green grass. A child learning “fields grow greener still” from such a picture could well remember the picture and forget the exact word being taught. Later the child might use the word which first popped into her mind when she remembered the picture rather than the word she was first taught.

That this may be at least a partial explanation of the word replacement is supported by the data collected concerning the nature of the area in which the respondent learned the song. Those who learned the song in an urban area were 37 percent more likely to have learned the word “grass” rather than “fields.” Eighty-nine percent of those in urban areas learned “grass”; only 52 percent of those in rural areas did so (see table 3). Those in an urban setting are more likely to view a picture of green grass as grass or lawn than as a field (which is something they don’t see every day), whereas
those who live in a rural setting seem more likely to perceive the same picture as a field, something that they do see around them every day.

Another possible reason the word was replaced is revealed by another interesting item in the data—the current age of the respondent. The older a person is, the more likely he is to have learned the song correctly. Only eight percent of the respondents who were below the age of 50 learned "fields," while 41 percent of those 50 and over did so (see table 4). Again, several explanations are possible. The word replacement may be picking up steam by sheer momentum. Or there may have been some other means of learning or reinforcement that was going on when the younger respondents were learning the song.

One such reinforcement may have been that The Three Ds, a popular LDS singing group in the late 1960s and early 1970s (when many of today's under 50 group were learning the song), sang and recorded the song using the word "grass" instead of "fields." During this time period, The Three Ds performed in places like Las Vegas, opening for celebrities such as Bob Hope and Bob Newhart, and they recorded with Capital Records. "Give, Said the Little Stream" was one of their more popular songs, both in concert and on record. In fact, they would often end their concerts with the song, according to one member of the group, because it added to the mood. Many LDS people had copies of their recordings; thus, they were able to hear it often. It may well be that the power of the recorded version boosted the word replacement considerably, thus accounting for the generation gap revealed in the survey. (Incidentally, one of the members of the Three Ds, Duane Hiatt, told me that people familiar with the version of the song using "fields" would occasionally correct them, but he believed the word "grass" sounded better because of the alliteration).

If part of the source of the word replacement is the influence of recorded popular music, a return to the original version of the song could be expected because there is a current CD by LDS singer Brett Raymond entitled "Especially for Grown-ups" on which the song is recorded using the word "fields." Perhaps this version may have an effect on those that hear it and change the common use of the word "grass" back to "fields."

While highly suggestive, these conclusions must remain until a larger and more comprehensive study is conducted. Such a study could provide important insights into how and why word replacement occurs in popular culture.

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Children's Songbook. 1989. Salt Lake City: Church of Jesus Christ of Latter-day Saints.
Table One. Responses to “The ______ grows greener still”

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<th>Responses and Percentages</th>
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Table Two. Sources of Learning

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Table Three. Urban vs. Rural

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Table Four. Age of Respondents

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<tr>
<td>Other</td>
<td>2 (2%)</td>
</tr>
</tbody>
</table>

Table Five. Gender of Respondents

<table>
<thead>
<tr>
<th>Responses and Percentages</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>46</td>
</tr>
<tr>
<td>Female</td>
<td>100</td>
</tr>
</tbody>
</table>
Firstness of Secondness in Nauruan Morphology

Lisa M. Johnson

The Nauruan suffix -(V)n performs many functions. For example, it acts as a possessive suffix, as a completive aspect marker, and as a part of a relative pronoun. The formal contexts in which the morpheme appears are so varied as to suggest several homophonous lexical entries rather than a single morpheme. The purpose of this paper is to relate the disparate usages through the expression of common semantic information. The morpheme is said to have an inherent meaning (Immediate Interpretant in Peircean terms, “general meaning” in Jakobsonian) that is expressed in each of the different contexts. The proposed meaning for the morpheme is expressed in Peircean terms as a marker of Firstness of Secondness.

The first section of the paper presents the data exemplifying the different usages of the morpheme. The next two sections provide an outline of Peircean Semiotics as it is applied in this paper, with a special emphasis on the category Firstness of Secondness. The next section illustrates how each instance of the morpheme expresses the same meaning, and the final section provides a summary and proposal for further research.

**USES OF -(V)n**

The following examples illustrate the patterns in question. The last line of each example describes the context in which the suffix is found.

1. a pudun
   1Sing fall+Vn
   I fell.
   COMPLETIVE VERB
2. eawen
   light+Vn
   Now it is light. (It became light.)
   INCHOATIVE VERB
3. mui e bawo
   tooth+(V)n shark
   shark tooth
   PARTITIVAL NOUN PHRASE
4. ngain
   child+t+n
   his/her child
   POSSESSIVE NOUN PHRASE
5. ituber eran
   mat e+CLASS+n (ART)
   a mat
   ARTICLE
6. wo t'o me ñaran o mo
   [ña+CLASS+n] [3Pers.Sing] good
   Give me only that which is good.
   RELATIVE PRONOUN
7. irriang in eibogi
   song + Vn joy/gladness
   NOUN PHRASE OF CHARACTERIZATION

In example 1 the suffix is added to an active verb to produce a verb in the completive form. In 2 the suffix attaches to an adjectival verb, producing the inchoative form. Examples 3 and 4 express similar partitival notions, but 4 is a clearer use of a possessive construction. Examples 5 and 6 illustrate
how the morpheme can be combined with noun classifiers to produce an article and a relative pronoun, respectively. In example 7 the morpheme appears between two nouns, allowing one noun to modify the other.

The variety of contexts in which the morpheme is found prevents any morphosyntactic explanation for the formal similarities. One natural reaction to these data would be to treat each instance of -(V)n as a different morpheme, attributing the homophony to coincidence. Kayser (1936) takes this approach, assigning names as various as "actualising suffix," "possessive suffix," and "adverb of purpose" to the cases cited above. In some instances (the formation of indefinite articles, demonstratives, and relative pronouns, for example) Kayser offers no name or explanation whatsoever. He simply notes that the suffix -n is added to a numeral classifier in each case and makes no attempt to relate the forms.

While Kayser's approach may describe the function of a morpheme in a particular context, it fails to capture an important generalization—the similar phonological forms illustrated above represent common semantic information, regardless of context. In Peircean terms, the morpheme functions as a marker of Firstness of Secondness.

**PEIRCEAN CATEGORIES**

Peircean Semiotics is the study of signs. A Sign is something that can be interpreted. It can represent an Object in the existential world, and it suggests or leads to an interpretation known as the Interpretant. The relationship among the Sign, the Object, and the Interpretant can be expressed graphically in the following diagram.

The numerals at the angles represent the Peircean categories of Firstness, Secondness, and Thirdness. Here they correspond to the Sign, the Object, and the Interpretant, respectively. Peirce, however, did not limit the categories to this application, claiming that the categories are truly universal, pertaining to every phenomenon. In other words, everything in the real world, whether existential or not, will exhibit the characteristics represented by the terms Firstness, Secondness, and Thirdness. Although Peirce spent his life trying to describe these categories and their implications, I will attempt to summarize each "mode of being" (Peirce 1931–66, 1.23) in one short paragraph.

*Firstness* can be characterized by the terms "origin," "potential," and "quality." Firstness is not part of the existential world; instead, it is "the potential

![Figure 1. Peircean Triad](image-url)
world of quality” (1.421). Pure quality is abstract. I can speak of “redness” as a quality. It does not refer to the redness of the apple I hold in my hand or to the redness of the blood I see when I cut my finger. It is the quality redness that could be applied (potentially) to any number of things. But in the realm of Firstness, the quality is not related to any existential thing. Firstness is “that whose being is simply in itself, not referring to anything nor lying behind anything” (1.356).

Secondness depends on existence and opposition. It is the existential world of fact. According to Peirce, opposition is the essential quality of existence: “A thing without oppositions ipso facto does not exist” (1.457). We know that an object exists because of the physical laws of opposition. If I lean against a wall, the wall “reacts” with an equal and opposite force. The wall produces effects on my senses: when I touch it, I can feel that it is hard and smooth; when the light reflects off of it, I see that it is white. Things in the world of secondness are tangible, observable, and factual.

Thirdness is associated with the key words “law,” “pattern,” and “habit.” Every time I throw a ball up in the air, the ball comes down again. The law of gravity that predicts the motion of the ball is an example of Thirdness. As a natural law, gravity predicts that objects will be attracted to the earth by a certain force and that the acceleration of a falling object can be determined by a specific formula. The law of gravity does not specifically identify every object or the context in which it will be attracted to the earth, but it describes the relationship between the earth and all possible objects, predicting the behavior of objects that may never even exist. This, too, is characteristic of Thirdness, which involves “the idea of possible variations which no multitude of existent things could exhaust but would leave between any two not merely many possibilities, but possibilities absolutely beyond all multitude” (1.366).

In addition to the “pure” categories described above, Peirce identifies “degenerate” categories that exhibit features of more than one. Firstness of Secondness (12), Firstness of Thirdness (13), and Secondness of Thirdness (23) lie on the midpoints of the triangle’s sides as illustrated in figure 2.

Figure 2. Expanded Triad with Degenerate Categories

Robertson (unpublished)
FIRSTNESS OF SECONDNESS

This paper focuses on the so-called degenerate category Firstness of Secondness. As stated above, this category lies between the categories of pure Firstness and pure Secondness. Thus, it exhibits features of both. According to Robertson, Firstness of Secondness is the "experiential world . . . not necessarily subject to . . . objective investigation" (1994, 185). Although the character Goldilocks cannot be photographed or weighed, children familiar with her fabled encounter with three bears can attest to her reality in the world of their experience.

One common linguistic expression of Firstness of Secondness is the representation of one thing in two different states. In the existential world, it is impossible for an object to be in two different states at the same time. But, as Peirce explains, the idea of time allows for two instances (Secondness) of the same single object (Firstness).

Contraries [opposites] can be united in one subject. Time is that diversity of existence whereby that which is existentially a subject is enabled to receive contrary determinations in existence. Phillip is drunk and Phillip is sober would be absurd, did not time make the Phillip of this morning another Phillip than the Phillip of last night. The law is that nothing dyadically exists as a subject without the diversification which permits it to receive contrary accidents. The instantaneous Phillip who can be drunk and sober at once has a potential being which does not quite amount to existence. (1. 496)

Another important instantiation of Firstness of Secondness lies in a part-whole relationship. Firstness of Secondness "consist[s] in the relation between two parts of one complex concept, or, as we may say, in the relation of a complex concept to itself, in respect to two of its parts" (1.365). The juxtaposition of a part and a whole (or two parts of a whole) extracts two roles from one existential object.

A second kind of partitive relationship consists in the extraction of a quality from a particular object. "So also, we speak of the abstract quality of a thing as if it were some second thing that the first thing possesses" (1.365). The phrase 'the redness of the apple' abstracts a quality (Firstness) from an existential object (Secondness).

FIRSTNESS OF SECONDNESS IN NAURUAN DATA

These descriptions of Firstness of Secondness are apparent in all the Nauruan examples of -(V)n presented at the beginning of this paper. Throughout the various contexts, the inherent meaning of the morpheme—a marker of Firstness of Secondness—remains constant. This section will describe the Firstness of Secondness expressed in each of the contexts given.

One Thing in Two States

In both examples 1 and 2, repeated here as 8 and 9, respectively, -(V)n is suffixed to a verb but to a different effect in each case.

8. a pudun
ISing fall+Vn
I fell.

9. eawen
light7+Vn
Now it is light. (It became light.)

In 8 the suffix marks a perfective or completive aspect. The action denoted by the verb is seen as complete, whether it occurs in the past, the present, or the future. In 9 the suffix marks the inchoative. In this context, Kayser calls the affix (-en) a "realizing particle" that "denotes the actualizing or the coming into being of an action or a state whether present, past, or future" (1936, 165–67). According to Kayser's
description, the particle can be affixed to any part of speech to "[denote] the occurring or the coming into being of the respective action or state" (167).

The difference between the completive and inchoative is derived from the context. When the suffix is attached to an action verb, it signals that the action is complete, as in the following examples:

10. a nuwawen 
   1Pers.Sing. go+Vn 
   I did go. (I left.)

11. a kaioiten aem 
   [1Pers.Sing] [hear+Vn] [your words] 
   I heard what you said.

When the suffix is attached to a noun or an adjectival verb, it expresses the notion "become x."

12. owaken 
    big+Vn 
    He/she/it became big. (He's grown.)

13. a nan timoren 
    1Pers.Sing. FUT health+Vn 
    I shall be cured (get better).

The suffix can even be attached to a number to indicate that a group of that number has been formed:

14. angon 
    six+n 
    Now there are six.

Both the completive and inchoative uses of the -(V)n suffix express the same kind of Firstness of Secondness: one thing in two different states. It is impossible to imagine a completed action without imagining the incomplete state. Similarly, the inchoative verbs juxtapose two distinct states. In 12, for example, the small person is compared with the grown; and in 13 the sick is compared with the healthy. The identity of the subject in both cases represents Firstness, and the inherent contrast in states represents Secondness.

Part-Whole Relationship

The prototypical "part-whole" relationship is shown in 3, reproduced here as 15.

15. mui't ebawo 
   tooth+(V)n shark 
   shark tooth

The tooth in this example is clearly part of the shark. The Firstness of Secondness lies in the comparison between the "part" (the tooth) and the "whole" (the shark). One part of the object is set up against the whole as though it were a separate object. In 16 and 17, the leg and the post are juxtaposed with the table and the house, respectively.

16. naenaen murana table 
    leg+n that table 
    table leg

17. joret 'oag 
    post+Vn house 
    post of the house

   It is interesting to note that the form for table leg is exactly the same as the form meaning his/her leg, as in 18.

18. naenaen 
    leg+n 
    his/her leg

Here the leg is seen as part of the whole person. Example 4—here 19—illustrates a similar relationship.

19. ngain 
    child10 +n 
    his/her child

   In this example the child and the parent are seen as two parts of a complex concept—the family.

   In these contexts the suffix is best described as part of the possessive paradigm. Table 1, recreated from information in Kayser (1936), shows the possessive suffixes for all persons and numbers. The suffixes in this table are attached to the noun referring to the possessed object.

   The third person singular suffix corresponds to the -(V)n suffix discussed in this paper. The correspondence between possessive suffixes and a partitive relationship is evidenced by the types of nouns with which the suffixes are used. Possessive suffixes are attached to nouns
Table 1. Nominative Possessive Suffixes.

<table>
<thead>
<tr>
<th></th>
<th>Sing.</th>
<th>Dual</th>
<th>Trial</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inclusive</td>
<td>—</td>
<td>-tar</td>
<td>-teij</td>
<td>-ta(n)</td>
</tr>
<tr>
<td>1 Person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exclusive</td>
<td>0</td>
<td>-mar</td>
<td>-meij</td>
<td>-ma(n)</td>
</tr>
<tr>
<td>2 Person</td>
<td></td>
<td>-m</td>
<td>-muror-meij</td>
<td>-mie(n)</td>
</tr>
<tr>
<td>3 Person</td>
<td></td>
<td>-n</td>
<td>-ror</td>
<td>-ra(n)</td>
</tr>
</tbody>
</table>

referring to inalienably possessed objects, including body parts and kin. Possession of alienable objects—including things that can be bought and sold—is expressed by possessive pronouns from two different paradigms, as in the following examples:

20. wan telephone
    1Pers.Sing.Poss telephone
    his/her telephone

21. aen oag
    1Pers.Sing.Poss house
    his/her house

Another type of part-whole relationship refers to certain members of a group, as in the following example:

22. innon
    those (beyond) + n
    a few of them (a few of those things way over there)

This relationship is also expressed when a single member of a general class is identified. In Nauruan, a general class (one of thirty-nine noun classes) is represented by a classifier. A single instantiation is brought about by the -(V)n suffix. Both articles and demonstratives identify actual manifestations (Secondness) of a general class (Firstness) in this way. Two formal differences distinguish articles from demonstratives: different prefixes and an additional “distance” suffix on the demonstratives. The following list provides additional examples of this usage:

23. ituber eran
    mat e+CLASS+n
    a mat
    ARTICLE

24. ini emagen
    coconut tree e+CLASS+(V)n
    a group of coconut trees
    ARTICLE

25. iju iwin
    fish i+CLASS+(V)n
    a netful of fish
    ARTICLE

26. murane dibidi
    [mu+CLASS+n+Distance Suffix]
    knife
    this knife
    DEMONSTRATIVE

27. murana epe
    [mu+CLASS+n+Distance Suffix]
    stone
    that flat stone
    DEMONSTRATIVE

Quality of an Object

Another important partitive relationship abstracts a quality from an object. The relative clause is a prime example of this use. In the English construction “the girl who is singing,” the clause “who is singing” identifies a specific type of girl—that is, a girl who has the quality of “singing.” Since the relative clause in Nauruan performs the same function, it is not surprising that we find the Firstness of Secondness marker in this construction. The relative pronoun is formally similar to the demonstrative pronoun, the key difference between the two consisting in the absence of the distance suffix on the former.

28. wo otaruweij ituber ngaran o mo
    2Pers.Sing bring mat
    nga+CLASS+n 3Pers.Sing.
    good.
    Bring me a mat which is good.

Another way of identifying a quality is the addition of a possessive suffix to a verb. This creates a nominalized passive construction.
29. abien
    kill+(V)n
    the killing of him/her

In 29 his or her being killed is a quality attributed to the person. The morphological construction involving -(V)n extracts that quality from the person (the object), expressing a Firstness of Secondness.

Example 7, repeated here as 30, illustrates a final way that a quality can be expressed by -(V)n.

30. irriang in eibogi
    song + Vn joy / gladness
    song of joy

This construction allows one noun to identify a characteristic of another. Although Kayser (1936) calls -(V)n an “adverb of purpose” in this context, it is more appropriately described in terms of the possessive paradigm presented above. Ross (1998) identifies such constructions, present in Proto-Oceanic and many Oceanic languages, as noun phrases with nonspecific possessors. Thus “joy” in 30 is the possessor of “song” in much the same way that “shark” is the possessor of “tooth” in 15. The English translations “song of joy” and “tooth of shark” express this relationship quite accurately, with “of” representing the Firstness of Secondness marker. The following list provides additional examples of this usage:

31. oagit anakiwi
    house+Vn coconut
    coconut house (house for storing coconuts)

32. adae it torer
    time + Vn speaking
    time off for speaking

33. oagin arak
    house + Vn sick
    hospital

**SUMMARY AND CONCLUSIONS**

Although the Nauruan suffix -(V)n appears in a wide variety of contexts, these different usages are united by the consistent meaning present in the morpheme itself. Table 2 summarizes the different ways in which the suffix expresses the meaning Firstness of Secondness.

Peircean Semiotics provides a perfect explanation for homophonous forms in disparate contexts. Since most of the forms discussed here are reflexes of Proto-Oceanic reconstructions, a valuable follow-up study would examine the Semiotics of the morpheme in a comparative-historical context. Such a study might offer new insights into the discussion of Oceanic possessive and

<table>
<thead>
<tr>
<th>Table 2. Summary.</th>
<th>Context</th>
<th>Resulting Construction</th>
<th>Firstness of Secondness</th>
</tr>
</thead>
<tbody>
<tr>
<td>active verb + (V)n</td>
<td>Completive verb</td>
<td>One thing in two states</td>
<td></td>
</tr>
<tr>
<td>noun or adjectival verb + (V)n</td>
<td>Inchoative verb</td>
<td>One thing in two states</td>
<td></td>
</tr>
<tr>
<td>noun+(V)n noun</td>
<td>Partitional noun phrase</td>
<td>Part-whole relationship</td>
<td></td>
</tr>
<tr>
<td>noun + possessive suffix</td>
<td>Possessive noun phrase</td>
<td>Part-whole relationship</td>
<td></td>
</tr>
<tr>
<td>e/i + classifier + (V)n</td>
<td>Indefinite article</td>
<td>Part-whole relationship</td>
<td></td>
</tr>
<tr>
<td>prefix + classifier + (V)n +</td>
<td>Demonstrative pronoun</td>
<td>Part-whole relationship</td>
<td></td>
</tr>
<tr>
<td>distance suffix</td>
<td></td>
<td>(member of a class)</td>
<td></td>
</tr>
<tr>
<td>prefix + classifier + (V)n</td>
<td>Relative pronoun</td>
<td>Quality of object</td>
<td></td>
</tr>
<tr>
<td>verb + possessive suffix</td>
<td>Nominalized passive</td>
<td>Quality of object</td>
<td></td>
</tr>
<tr>
<td>noun + (V)n (nonspecific) noun</td>
<td>Noun phrase of</td>
<td>Quality of objects</td>
<td></td>
</tr>
<tr>
<td></td>
<td>characterization/</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Possessive noun phrase</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
construct forms (see Ross 1998; Lynch 1997; Harrison 1976; Groves, Groves, and Jacobs 1985; and Rehg 1981).

NOTES

1. Throughout this paper I refer to this suffix as ~-(V)n, although it is sometimes realized as ~-(V)[t], according to the following phonological rule: /n/Æ[t] / __ [-cons. -low] (Maggie Jacob, personal communication). The conditions that determine the value of the vowel will not be addressed in this paper.

2. The gloss “light” refers to brightness, not weight.

3. See note 1.

4. The gloss “child” here refers to “son” or “daughter”, as opposed to “young person.”

5. This diagram is a modification of a diagram that appeared in Robertson (1994).

6. Ibid.

7. The gloss ‘light’ refers to brightness, not weight.

8. See note 1.


10. The gloss “child” here refers to “son” or “daughter,” as opposed to “young person.”

REFERENCES


Perception and Production in Processes of Merger

David Bowie

In 1972, Labov, Yaeger, and Steiner noted the existence of what have been called “apparent mergers” or “near-mergers”—cases in which vowel classes are produced differently by members of a speech community but at the same time are perceived by them as being the same. Since then, several studies have confirmed that near-mergers do exist (for example Janson and Schulman 1983; Di Paolo and Faber 1990; Labov, Karan, and Miller 1991; Kontra 1993; Faber and Di Paolo 1995; Diehm and Johnson 1997). In addition, evidence has been found that similar effects can be found in second language acquisition (Sheldon and Strange 1982) and that the concept can be used to explain certain puzzling phenomena in historical linguistics (Nunberg 1980). It should be noted that the evidence listed here is evidence for a rather counterintuitive proposal, as it posits that speakers are able to produce contrasts they are unable to hear.

This paper presents a report of results from fieldwork in Waldorf, a medium-sized town in Southern Maryland, in order to confirm whether mergers in perception actually do precede mergers in production in the linguistic situation there. Waldorf is a community of 51,324 people located twenty-three miles south-southeast of Washington, D.C. (Charles County Economic Development Commission 1998); it has historically been a rural community but is in the process of changing into a suburban one. Previous dialectological studies have placed Waldorf either in the Southern dialect region or at the border of the Southern and Midland regions, and there is in fact disagreement among Waldorfians themselves as to whether their accent sounds more “Southern” or “Northern.” This town was chosen as the site for the current study in part because previous fieldwork there had shown that there are mergers in progress among the pre-lateral non-low back vowels (that is, the vowels in the words pole, pull, and pool). The vowels in these words have only been found to be merged in the pre-lateral context in Waldorf; this is unsurprising, as following /l/ is a context that seems to promote merger (Ash 1998, among others). This situation presents an opportunity to test the hypothesis that mergers in perception precede mergers in production not just in situations where the merger is universal, but also in which it is a conditioned merger.

Fieldwork among Waldorfians was conducted between the spring of 1998 and the fall of 1999. In this study, twenty-nine native Waldorfians underwent commutation tests to determine the progress of the mergers in the pre-lateral non-low back vowels in both perception and production. The subjects took a series of three commutation tests, each comparing a minimal pair with different pre-lateral non-low back vowels in order to determine the presence or absence of mergers in perception—so the subjects were each recorded reading three randomly ordered lists of thirty words, each made up of minimal pairs of the words under study (pole/pull, pull/pool, and pole/pool). After
this, demographic information was obtained from the subjects, and they then listened to the recording of their own voices reading the minimal pair lists. The subjects were asked to mark down which word they believed they heard themselves saying while listening to the tape; a preprinted form with checkboxes was provided for this purpose. The subjects heard only twenty words from each list, as the tape was not started at the beginning of each list. In this way, the remote but real danger of the subjects having simply memorized the list while reading it and marking down the answers accordingly was eliminated. 7

After the commutation tests were completed, the answers given by the subjects as to what they believed they heard were checked against a master list. If a subject correctly identified all of the words in a particular minimal pair list, then that subject was identified as not having a merger in perception for that pair. On the other hand, if the subject misidentified any of the words in a particular list, that person was identified as having a merger in perception for that pair. On the other hand, if the subject misidentified any of the words in a particular list, that person was identified as having a merger in perception for that pair. In this way, the remote but real danger of the subjects having simply memorized the list while reading it and marking down the answers accordingly was eliminated. 7

Looking at the results of the testing for mergers in perception using apparent time reveals that the mergers have proceeded in a particular order in this speech community—first pull and pool merged, then shortly thereafter pull and pole merged, and finally the merger of pole and pool took place. This is shown in Table 1, which gives the results for merger in perception for each of the pairs tested, arranged by the year of birth of the subjects from oldest to youngest. Note that in this table (as in other tables in this paper that use a merged/distinct classification) merged means that the items at the top of the column have collapsed together to such an extent that they are rated as merged, while distinct means that they are not merged. (The purpose of the heavy line dividing the columns of the table in two will become apparent as the paper continues.)

Table 1 shows that, while there was some individual variation before (and in some cases after) each merger took hold completely, the most significant difference in the perception of pull and pole exists between those born in 1963 or earlier and those born in 1965 or later. 10 For pull and pool, the most significant split occurs between those born in 1957 or earlier and those born in 1960 or later, 11 and the merger of pool and pole shows a significant split between those born in 1978 and earlier and those born in 1979 and later. 12

Rating the production of mergers is not quite as clear-cut, as production as measured by F1-F2 plots is an analog rather than a digital system—that is, it's the result of the relevant placement of several produced phonemes rather than a single merged/distinct rating for the entire group. For the purposes of the current paper, however, a system was set up to make rating the subjects' production as binary as possible while still mathematically rigorous. The first and second formant values of each set of produced vowels were subjected to a Student's t test with a null hypothesis that the vowels were merged in production. If the results of this statistical measure gave a value of p<0.05, a standard cutoff value for this sort of testing, for either formant, the vowels were considered to be distinct in production. A summary of the results for merger in production for all of the individuals listed in Table 1 is given in Table 2.
Table 1. Status of Mergers in Perception by Subject

<table>
<thead>
<tr>
<th>Pseudonym</th>
<th>Sex</th>
<th>Year of birth</th>
<th>pull-pole</th>
<th>pull-pool</th>
<th>pool-pole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theona</td>
<td>f</td>
<td>1919</td>
<td>merged</td>
<td>merged</td>
<td>distinct</td>
</tr>
<tr>
<td>Elden</td>
<td>m</td>
<td>1921</td>
<td>merged</td>
<td>merged</td>
<td>distinct</td>
</tr>
<tr>
<td>Rowan</td>
<td>f</td>
<td>1929</td>
<td>distinct</td>
<td>distinct</td>
<td>distinct</td>
</tr>
<tr>
<td>Gerald</td>
<td>m</td>
<td>1941</td>
<td>distinct</td>
<td>merged</td>
<td>distinct</td>
</tr>
<tr>
<td>Randall</td>
<td>m</td>
<td>1942</td>
<td>distinct</td>
<td>merged</td>
<td>merged</td>
</tr>
<tr>
<td>Elise</td>
<td>f</td>
<td>1946</td>
<td>merged</td>
<td>merged</td>
<td>merged</td>
</tr>
<tr>
<td>Raymond</td>
<td>m</td>
<td>1948</td>
<td>merged</td>
<td>merged</td>
<td>distinct</td>
</tr>
<tr>
<td>Jeri</td>
<td>f</td>
<td>1951</td>
<td>merged</td>
<td>distinct</td>
<td>distinct</td>
</tr>
<tr>
<td>Pippin</td>
<td>m</td>
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The most obvious thing that jumps out of Table 2 is that there is much less merger in production than there is merger in perception. Also, the splits separating the speech community's adoption of these mergers in perception do not precisely match the speech community's adoption of the mergers in production. The most significant difference in production of pull and pole appears between those born in or before 1967 and those born later (as compared to the perceptual merger, which was adopted slightly earlier, beginning with those born in 1965). The difference in merging pull and pool in production occurs between those born in 1967 and earlier on the one hand and those born in 1969 and later on the other (later than the parallel merger in perception, which was adopted beginning with those born in 1960). The adoption of the merger in production of pole and pool, it should be noted, does not lend itself well to statistical testing (and
Table 2: Status of Mergers in Production by Subject

<table>
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</table>

Therefore to comparison with the adoption of the merger in perception) because the only person who exhibits the merger is Helen (born 1978).

A comparison of Tables 1 and 2 reveals that there is often a mismatch between production and perception among those tested. A table showing where the status of each merger matched or differed is given in Table 3, where a D represents a distinction in both production and perception, an M indicates a merger in both perception and production, production indicates a merger in production but not perception, and perception indicates a merger in perception but not production.

One thing to note in Table 3 is that, once a merger progresses through both perception and production, it is almost never completely reversed in both perception and production. This only makes sense—these are processes of merger, and reversal of merger is an extraordinary occurrence.

Another thing that comes out of Table 3 is that, although the perception and production of the various mergers and distinctions does match in the majority of cases, there are still a large number of cases in which there is a mismatch. Most notably, however, of the forty-three cases of a mismatch between perception and production, only one of them shows a
merger in production and not perception (Helen’s pool and pole). This in itself is quite suggestive evidence that merger in perception generally precedes merger in production in this speech community. The one odd exception will not be dealt with in this paper, but it has been dealt with in other reports on this data (Bowie 2000) and turns out not to be evidence against the claim that mergers in production are temporally following corresponding mergers in perception in this speech community.

So after all this discussion, the question remains—what does all this mean? In answer, the most obvious thing to report from this study is that yet another case has been found in which mergers in perception precede mergers in production temporally, thus providing still more evidence that this is a general process by which mergers spread. The data that has been presented, however, shows some items of interest that go beyond that.

The first of these is something brought up in previous work on similar issues (Bowie 1998, 1999)—a methodological caution. This study simply compared results for perception with a simple test for merger in production (such as, for example, F1-F2 plots or native speaker judgments). A moment’s reflection will show that this is a dangerous

<table>
<thead>
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<th>Pseudonym</th>
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method to use—it is entirely possible for an individual to exhibit differences in production that don’t show up through testing of formant values, for example. That said, though, there is a danger in going to the opposite extreme. For example, consider a situation where someone merged the vowels in pull, pole, and pool according to tests of formant values but also exhibited an extreme rounding of pole but not pull or pool. The question arises—should a study such as this one consider pull and pool as being produced differently? Similarly, if they should, at what degree of difference should the cutoff line be? Future work should deal directly with these issues.

Finally, this paper is the latest report to confirm that mergers in perception precede mergers in production in various environments; one could certainly argue that it is a conclusion that is now established. However, this is only one part of the larger issue of matches and mismatches between speech perception and speech production. A vital issue in the perception/production situation is whether this mismatch occurs in situations other than mergers. One has to wonder whether there is a similar perception/production mismatch when phonemic classes split. If the answer is no, then work will have to be done to explain why exactly there is such a difference—but if the answer is yes, linguistics will be a step closer to developing a theory that can account for all types of phonetic change. In addition, finding out whether there is a perception/production mismatch in such spheres as syntactic and lexical change is equally important. Such research would have the effect of helping determine whether all transmission of linguistic change functions in the same way, or whether the human mind really does deal with different classes of linguistic processes in very different ways.

NOTES

1. It should be noted that this phenomenon was documented earlier than 1972—Labov, Karan, and Miller (1991) report personal communication from David de Camp that the phenomenon was documented but unrecognized in the early 1950s.

2. Also, data collected for the Phonological Atlas of North America shows that mergers in perception precede those mergers in production in about five of every seven cases studied (William Labov p. c. 1998).

3. Waldorf is an unincorporated municipality and therefore has no legally set borders. For this study, the borders of Waldorf as defined by the U.S. Postal Service were used—namely, ZIP codes 20601, 20602, and 20603 (ZIP code 20604 is also assigned to Waldorf, but covers only post office boxes). This definition includes not only Waldorf but also St. Charles, a housing development begun in the late 1960s that has grown large enough that it often appears as a separate (and larger) town on maps.

4. The distance given is road miles, and the population given is the combined population of the unincorporated municipalities of Waldorf and St. Charles.

5. It appears that some speakers may merge the vowels in dull and pull, as well, but in any event this occurs only sporadically and so is not dealt with in this paper.

6. From the evidence collected, it seems that the process by which the mergers take place begins, crucially, with the fact that the Waldorf /o/ and /u/ are fronted everywhere, including word-internally, except pre-laterally. The vowel in pull is backed (likely in conjunction with a backing of /ʌ/) and the vowel in pole raises until pull and pole are merged; after this, the vowel pool lowers until it merges with the merged pull/pole. A complication can occur in which /o/ and /u/ are actually fronted pre-laterally by some speakers (whether from /1/-vocalization or general fronting is unclear), but this happens only sporadically and doesn’t appear to have any real effect on the data presented in this paper.

7. The subjects were told that this step was being taken and why. This was done so that if someone who had memorized the list was taking the test, that person wouldn’t get items unnecessarily wrong simply due to being out of phase with the words that were actually being played.

8. This is a very strict standard—even just one misidentified word resulted in the subject being labeled as having a merger in production. The rationale, however, is that if there is a robust distinction between two
PERCEPTION AND PRODUCTION IN PROCESSES OF MERGER

phonemes (as an example, consider the initial consonants in mat and cat), there would be absolutely no confusion between them (Sherry Ash p. c. 1998).

9. Using WinSAL version 1.2a, a computer program produced by Media Enterprise.

10. The older group merges the sounds 78.57% of the time versus 93.33% for the younger group, verified as significant by a chi-square test to a level of p<0.0001.

11. With the older group merging the sounds 58.33% of the time and the younger group 94.12% of the time, verified by a chi-square test to a level of p<0.001.

12. The older group merges the sounds 13.04% of the time and the younger group 66.67% of the time, which chi-square testing shows to be significant to a level of p<0.001.

13. This is not just an artifact of the method used to determine merger in production—an analysis that assumes that any overlap of vowel spaces constitutes merger in production also results in the finding that merger in production is more widespread than merger in perception (Bowie 1998).

14. 12.50% merged by the older group and 53.85% in the younger group, with a chi-square test showing this split significant to a level of p<0.01.

15. The older group merges these 5.88% of the time, the younger group 23.00% of the time; chi-square testing declares this significant to a level of p<0.0001.

16. The two exceptions to this: Theona perceives and produces pull and pool as merged, but several speakers born in the forty years following her birth perceive and produce those words as separate. Also, both Elise and Jeri (born 1946 and 1951, respectively) merge pull and pole in both perception and production, but Rosa and Gus (born 1963 and 1982) maintain a complete distinction. Because these exceptions are so uncommon, however, they are left to the side for the current analysis.

REFERENCES


Di Paolo, Marianna, and Alice Faber. 1990. Phonation differences and the phonetic content of the tense-lax contrast in Utah English. Language Variation and Change 2:155–204.


From Meaning to Form and Back Again

Michael McOmber

INTRODUCTION

This paper discusses the advantages of a grammar that places Logical Form as the initial component (Early Logical Form) rather than in the later dovetail position of the Government-Binding model of Chomsky, or after Spell-Out in his Minimalist program of the 90s (Late Logical Form). Chomsky’s interpretivism runs from form to meaning only, whereas the production model I propose here runs from meaning to form for the encoder/speaker and then back again from form to meaning for the decoder/listener. By comparison, Government Binding scrambles half of production.

I set the stage in the first section by rehearsing the relevant principles of Government Binding (GB) and Minimality that I will refer to, in addition to other general arguments which I claim make for good grammar—an overriding principle is the time-honored philosophy of economy in Occam’s Razor, which eschews redundancy and wastage. In the second section I focus in on specific data from Kenstowicz’s analysis of Bani-Hassan Arabic, which includes a crucially overt scope marker. I show that in a Late Logical Form model, the grammar runs into a paradox when it comes time to insert the scope marker. At the crux of the problem is the gnawing fact that, even though interpretation is not supposed to occur until (Late) Logical Form, our grammarian becomes the proverbial “man who knew too much” when trying to achieve some explanatory adequacy on what is happening. That is, he must rely on semantics to explain the insertion, and yet the interpretation to provide it does not occur until after he has completed the step. He essentially knows too much, too soon of the eventual meaning, none of which, in fact, has been computed yet, since it must wait for Late Logical Form to compose the interpretation.

Samples of other fatal consequences of Late Logical Form are presented in the third section, including reconstruction effects, dis-anaphora, and the ironies of defective convergence and the procrastination principle in a grammar that claims its own appeal to “Economy of Derivation and Representation” (Chomsky 1995, chap. 2).

Finally I recapitulate conclusions in the fourth section: Early Logical Form provides more efficiency, therefore higher descriptive and explanatory adequacy. My provocative plea is to abandon interpretivism and pursue a deterministic production model.

THE PREMISES

As this is essentially a rebuttal of Chomskyanism, I begin with the more fully articulated Government-Binding model of his Transformational grammar as a starting point. Although his minimality program promises to be different, all indications are that he has maintained a late interpretive logic there as well. Therefore, what I have to say on Government Binding still holds true of more recent development. The dovetail point at S-Structure acts too much like the Spell-Out point to his new interfaces.
It makes for stronger rebuttal to start with Chomsky’s own definitions and constructs (especially as perceived by his adherents) and then show how these lead to contradictions and internal inconsistencies, with his own theory to lead the way, “hoist with his own petard” (Hamlet III:4). Here then follow several guiding principles and premises from Government Binding which we crucially refer to during our discussion.

The Purpose of Logical Form

The function of Logical Form (LF) is to provide a component that is “interpretive in nature [and which] assigns...a semantic representation” (Ouhalla 1994, 46) to the various structures which the grammar has generated. It is the “level where meaning relations are determined” (92). One of these interpretations, for example, is to determine scope: “The scope of A is the set of nodes that A c-commands in the LF representation” (133, emphasis added).

What bothers me the most about post hoc assignment of semantic representation is the entailment that I must be juggling words around, applying rules and making adjustments without knowing anything about what the thing is intended to mean. In fact, I am unable to find room for any semantic intension whatsoever in Chomsky. Is Transformational Grammar (TG) claiming that the rules up till S-Structure are totally devoid of any semantic considerations whatsoever? That is how extreme this position seems to be. How then did I decide what to pull from the lexicon in the first place? Is that random? If I pull out the lexeme house surely it is because I intend to refer to house. Why pull out terms I intend not to mention?

The other anomaly here is the modus operandi of interpretivism itself. In a near-Freudian denial, proponents of GB claim that theirs is not a production model. That stipulation is to excuse them from addressing the issue in the preceding paragraph. However, they fail to realize that a production model has two parts. As I move from Meaning to Form, (the part which TG patently dismisses as out of bounds) I, the speaker/encoder, choose a thought, then formulate and utter my message. At that point, it is received by the listener/decoder who does in fact have the task of interpreting the message. This is done by running the given message backwards through the rules. That is, (s)he takes the utterance and reconstructs what the underlying thought must have been. My point is that interpretation is necessarily a function in the production model. It is precisely half the production, and it is inside out. In order to surgically remove his GB portion of language, from the entirety of language production, as Chomsky is wont to do, he must explain along the way (or at least stipulate) how the relationship between these two allows for this removal. What is the point of having it survive on its own? Does it not eventually reconnect into the whole? To simply divorce a portion of grammar from the rest of human language production, without addressing such issues otherwise, makes generative grammar a naïve uninformed process. The point, then, is surely: what insights and advantages are there to this removal? I submit here that ipso facto it causes shortsightedness: we will have lost sight of the whole. Without the end in view, we more easily lose our way and even our destination.

What is the advantage of retaining production and using interpretation to run grammar in the other direction? The bias evident in doing so is well placed. Messages are necessarily biased to the encoder. If someone is confused with my message, or stumbles on an ambiguity, I have the sole right to expound my semantic intention, to interpret the message for the listener, because I encoded it, and if sober, know what I meant to say. It does little good for a listener to contradict me on that point, regardless of my
"performance" errors. The choice, then, is expressed in the question: Who better can determine for us the meaning of a sentence, the encoder or the decoder? If the answer is the decoder, then we should follow interpretivism. If the answer is the encoder, and I submit that it is, we then follow deterministic production.

This appropriate meaning bias of the encoder is reflected in starting with Meaning, or Logical Form. The irony of the label, using the term "form" in reference to a level of meaning, when in fact the dichotomy of form versus meaning is the most fundamental distinction in language, is further evidence of difficulty in their point of view: the stated purpose of Logical Form undoes itself in that it confuses form with meaning, and unwittingly becomes the second half of the very production model Chomsky has so vehemently and persistently eschewed since Syntactic Structures in 1956.

The Implication of a Terminal Checkpoint

Logical Form (LF) and Phonetic Form (PF) dovetail off of the syntactic component, because these have no input-output relationship to one another; no information is to pass between them. Since Late LF cannot feed PF, it is not possible to insert lexical items in Late LF and expect them to be "visible" to PF. This dovetail is not even handed, however. Flaws detected by either LF or PF can block a given derivation. So this dovetail must, in fact, reunite after the two components have run their course. For example, PF can continue finishing its work, while the sentence is blocked in LF. PF does not "know" this. Or vice versa, LF could pass on a sentence that does not make it through the checks in PF. I have to hear from both camps, before I know the sentence has "converged" as GB calls it. The checkpoint waits to hear from both wings of the dovetail before it can pronounce final judgment on the legitimacy of the sentence being derived.

The fact that there is no information passed between them is uneconomical, for while a flaw is found in one component, the derivation may be continuing successfully through the other component needlessly (since I now know that it will be rejected anyway), thus overgenerating and wasting effort. If I am interested in an LF judgment on an illegal sentence, I can run the derivation through, but that is an experimental procedure for theoretic value rather than the usual state of affairs of generating legal sentences through the grammar. Except for experiments, the earlier I stop misgenerating, the better off I am. Why bother finishing work in one tail, when the sentence has already crashed in the other?

If, on the other hand, we were to allow PF or LF to tell the other as soon as one of them crashed, we are right back where we started on the issue. If LF can tell PF it crashed, then why not let it tell PF that it just checked scope and, as we shall see below, may need to insert a marker for it? Any communication turns into all communication, and we lose the reason for separating LF and PF into incommunicado branches in the first place.

The PF-LF dovetail is a weakness in the program, based quite frankly on a stipulation that violates economy. Let us now discuss economy outright.

The Economy Principle

My guiding light is the economy and efficiency expressed in Occam's Razor. For example, I want to constrain any excessive generative powers. It is wasteful to spend the energy of the grammar building structures for a late filter when an earlier one can intercept some of them and reduce spoilage. It is also uneconomical to disperse filters throughout the grammar if they can instead be consolidated. In that way, rules and checks are invoked less often while managing the same amount of control and functionality that was intended by the insightful generalities that resulted from the analysis.
Reducing duplication of effort is another economy. If a given semantic issue can be determined earlier in the derivation than waiting for Late LF, why maintain such a second component with those same abilities later on? Unless such a duplication of effort is justified (not stipulated) it should be removed to promote economy.

Overgeneration is another inefficiency. It is wasteful of the grammar to overgenerate structures with mismatched and illogical semantic markers in them, only to wait until near the end of the job (Late LF) to filter them out. If I have the information to exclude an illogical structure earlier in the grammar, it is more efficient to filter it out right then and there, because it reduces the amount and frequency of the overgenerated spoilage. An even better method would be to write the rule (at that point in the grammar) in such a way that a mismatch or illogical structure is never generated at all. Chomsky claims to support this principle:

Chomsky has suggested a condition on derivations called the “least effort” condition, understood as part of an overarching principle of economy of derivation. The interpretation of this condition . . . is that shorter derivations are always chosen over longer ones. This is to say that, in a situation where more than one derivation is possible for a given sentence, the one which involves [fewer] steps is chosen over the others. (Ouhalla 1994, 305)

But he must not see that it also applies in this case. In fact, one of the more amusing yet poignant pictures of excess in such an endeavor is the story of the room full of monkeys typing randomly away under the statistical charge that over an infinity of time they would produce a typescript of Shakespeare’s Twelfth Night. While it is possible for an English major to handle scrutiny of the output, it is always being evaluated after the fact. It is not heuristic; nothing drives the project towards its goal, such as using human typists could do. The project is not improving on itself as it continues.

As an aside, Optimality Theory could likewise learn a lesson from the monkeys. It, too, generates a potential infinitude of candidate forms in what has become linguistic history’s worst case of overgeneration to date (see McOmber 1994). To the extent that the checks-and-filters approach is also conducted after the fact and fails to provide intelligent cause-effect relationships in the output, such grammar behaves like the room full of monkeys. It behooves me then to prefer rule and principle driven mechanisms over randomized conundra. The latter is perhaps the ultimate expression of ad hoc at its very worst.

I have discussed economy as a guiding principle, even quoting Chomsky on the point, though I insist on applying it as broadly as possible. Let us now talk about the challenge to the integrity of LF that this creates, that is, the consistency of rules in it when considering the overall function and effect of the grammar.

Modular Integrity

Modular integrity in grammar compels components to be more self-contained than dispersed. If all meaning is consistently and only assigned in LF, I have a more consolidated, integral module than if only most of meaning is in LF. The latter would be a tremendously much more complicated stipulation: I would be forced to explain inconsistent boundaries—what criteria determine which types of meanings wait for LF and which ones come early? If any meaning is available early, then why not all? It would become my burden to explain that.

If scope is being determined and appealed to prior to the purview of LF, then the modular integrity of LF has been compromised. Still in all, when we find such breaches, it behooves us to admit it and repair the grammar. Far worse, and I have seen this repeatedly, is analysis where semantics is used, crucially, in the
explanation of a phenomenon, and then patently ignored as the rule is inserted into the GB model. We will see several cases of this below.

Chomsky's insistence on avoiding the production model appears to create more work for all of us who are searching for one. For if his grammar is not production, then it is just another descriptive grammar, a separate object from the production version, and we suppose that we need both: one to explain grammar in general, and the other to explain performance, both the flawed and the flawless. On the other hand, if it turns out that a production model of grammar does both, as I submit it does, then we have killed two birds with one stone and do not need the other non-productive grammar at all: Occam's Razor eliminates it.

Production and production issues are a reality. They are a part of language, in fact, they are at the core: the purpose of language is to communicate. I produce an utterance and you have to guess what I meant. Then, vice versa, you respond and now it is my turn to try and infer your meaning based on what you say, by retracing your surface structure back through rules to your original meaning, as I hope I have correctly managed to determine. Of course, further exchanges should allow us both to clarify our communication, and we learn the way each of us expresses himself as though we kept separate dictionaries on individual nuance and style. We can and do.

Meaningful deterministic production allows me to guide my grammatical choices by knowing where I am headed. What else, for example, guarantees that I will ever generate a correct sentence if there are no criteria determining the various rule applications along the way? It makes more sense to allow semantics to steer the course rather than hoping we happen to have all the pieces we need by the time we get to a Late LF. If I build a structure based on the point I want to get across in my message, then I can guarantee that the utterance has in it what I need. That is responsible communication. Choices in the derivation are based on that guiding meaningful point I wish to convey. Other choices may instead be based on morphological, computational or phonetic conditioning. But to deprive entire derivations of ever having input from semantics until they are finished, is an unfounded stipulation without merit. The randomization it requires is both uninsightful and extremely wasteful.

It disturbs the integrity of a Late LF, however, to make semantic choices while generating sentences, since such knowledge is not supposed to be available until after the dovetail beyond S-Structure. With this in mind, I now discuss the issue of hindsight versus foresight which such a dilemma inevitably raises.

**Derivation: Hindsight versus Foresight**

I now submit, in good company from other economical endeavors if not grammar, that foresight is superior to hindsight in making choices. Determined generation is much more economical than filters separating out needless spoilage. Otherwise we relegate human speech to the status of a computerized restaurant where robots follow no specific recipe but cook at will, randomly combining ingredients, temperatures, and techniques. Not to worry, we have tasters. Before any of these concoctions is served, the maitre d' takes a taste. He alone must either serve the food, or else throw it in the trash. But, crucially, he never talks to the cooks! No feedback is allowed. He never sends a soup back for more salt, or a rare meat cut to be cooked till medium well as the customer preferred. Never mind that the customer is impatiently waiting for his filet. He is not allowed to order anything, even if it is his choice of entree. He just sits in the dining room hoping for nourishment. There is, of course, no guarantee that anything palatable ever emerges from the kitchen. All the owner
of the establishment can promise is the probability that food of some sort will eventually come. No one can tell him when, what it might be, or how much will pass inspection: hindsight cuisine at its finest. In the meanwhile, the customer is welcome to peruse a Shakespeare manuscript from the nearby simian typing lab. It should be arriving any time now...

In the grammatical realm, GB is far too similar. There is a “sentence taster” at the terminal point where the dovetail covertly rejoins. The would-be filters provide no heuristic feedback to refine the grammar, to report what they have learned that tastes good. There are several judiciously early points in GB where available recipes could be followed and issues easily resolved by appealing to meaning. Recognizing a distribution of available meaning sites throughout the grammar is inconsistent with Late LF: “we will serve no meaning before its time.”

On the other hand, such procedures are evidence for Early LF since the semantics it provides persist throughout the derivation. I now present a crucial case where a GB analysis invokes semantics prior to Late LF, the overt scope marker *ma of Bani-Hassan Arabic.

**Semantics Prior to LF**

A semantic criterion prior to late LF is the overt scope marker: overt means pronounced in PF and therefore visible to it. But LF is deaf to PF, just as PF is blind to LF. If I insert it early enough for PF to have it, I am playing semantics out of bounds, and LF calls foul. If I wait till LF, PF won’t see it or pronounce it.

**Overt Scope Marking**

Bani-Hassan Arabic provides an example of the overt scope marker *ma. Kenstowicz (1989, 267ff, displays renumbered) explains that there is an LF rule . . . that helps to characterize the scope of expressions quantified by the negative existential *walla. When an NP quantified by *walla appears in postverbal position the verbs must be preceded by the particle *ma (2, 3), which in other contexts marks sentential negation (1). But

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**Sentential Negation *ma**

(1) al ʿtaalib *ma gara al ktaab.  
‘the student NEG read the book’  
*The student did not read the book.*

**Logical Form:**  
*walla ktaab *[al ʿtaalib *ma gara *e_i]*

**Scope Marker *ma:**

(2) al ʿtaalib *ma gara *walla ktaab.  
‘the student NEG read no book’  
*The student read no book.*  
= *The student did not read any book.*

(3) *al ʿtaalib gara *walla ktaab.  
‘the student read no book’  

(4) *walla ʿtaalib gara al ktaab.  
‘no student read the book’  
*No student read the book.*

(5) *walla ʿtaalib *ma gara al ktaab.  
‘no student NEG read the book’  

*walla ʿtaalib *[e_i *ma gara al ktaab]
when the negatively quantified NP appears in preverbal subject position (4) the particle ma must be absent (5).

Kenstowicz determines that "ma acts as a scope marker indicating that the NP quantified by walla has scope over the verb" (268). In other words, ktaab can now have scope over gara (and hence the entire clause) despite its location lower in the tree. In sentence 4 the higher scope is already correct for walla taalib by virtue of its higher position in the tree, so no added ma is necessary, and is, in fact, crucially prohibited, as shown in sentence 5.

While the Kenstowicz material discusses the resultant semantics, it does not explain how the structure was built in the first place—how does ma get inserted, and when is the particular position determined? For if scope cannot be determined until Late LF, I will not know till then if I will need ma. Yet if it is determined that I will in fact need it, how can I insert it knowing it will then be invisible to PF? It would not be pronounceable.

That is the paradox of an overt scope marker in Chomsky's system. Chomsky's way out is to randomly generate ma in the room full of monkeys and hope one of them types it in just the right spot. That is patently uninsightful, because it misses the generality that I do in fact know where and when I should insert it, at that point in the derivation. I am only waiting by stipulation. By refusing to address none but interpretive issues, and thus only the second half of production, Chomsky likewise misses insights and generalities associated with that first half.

The alternative is to determine scope prior to the dovetail. But if scope can be determined then, why redo it (duplication of effort) at LF? What does this second determination gain me? And is the earlier determination not an instance of an LF-like function (i.e., an earlier LF)? What is then the most efficient place in the derivation for scope determination? How can I eliminate a second (if needless) one?

Random generation of sentences with ma scattered throughout would be wasted overgeneration. It simplifies LF to not have to sort through all these if that can be avoided.

Deriving the Walla Sentences

Let us walk through a derivation of sentences like 1–5 above. In the subcategorization of the V^n gara, I choose a DP to be the patient/object/complement which builds a V', another DP, to be the agent/subject/specifier, which finishes the complex as a VP. Either of the DPs can be quantified by walla. Let us call a VP with walla in Spec, a High Walla structure noting that the walla is higher in the tree. VPs with a walla in their complement let us call Low Walla VPs. Referring back to sentences 2–5, High Walla structures have scope over the V' by virtue of having this higher position:

(6) Scope: The scope of A is the set of nodes that A c-commands in the LF representation. (Ouhalla 1994, 133)

This inherent or covert scope property explains why High Walla constructions will not need to have their scope marked overtly with ma.

At this point everything is fine, so far so good, but now the grammar reaches the ma-Insertion rule. Here is where the paradox unfolds. Notice first, however, that there is no GB step where some drastically new structure appears out of the blue. The various "set[s] of nodes" with all their c-commands which LF inherits were built step by step under full view. It is no surprise what structure LF gets, because we have just built it. In other words, as we are on our way to LF, we can see what is c-commanding what, and we realize what the implications will be. When we make a move that will have semantic implications later on down the derivation, why wait to fix it, or waste our time finishing a derivation which we know will crash, when we can built it properly in the first place?
I have shown you the scope rule and pointed out the advantage of perspicuity made possible by looking ahead (alias determinism). The reader is now, I believe, equipped to steer into the approaching storm and face the paradox head on.

The Approaching Storm

There are two possible ways to execute ma-Insertion. On the one hand, I can follow Chomsky and randomly insert ma without regard to the consequences (the consequences being the persistent spoilage of the overgenerated forms I know I will have to delete when I check for scope at Late LF). That approach would maintain a strict Late LF. The ad hoc pretense, however, is that I do not know what I am saying—that I cannot intend a particular scope when I wish to—and then guide the derivation accordingly. I cannot look ahead.

Why am I inserting ma? In Chomsky’s approach, the grammar does not care. Not only does it not care, it cannot guarantee that the insertion will ever take place. There is only a theoretical probability that the ma rule will ever be chosen. Nothing, in fact, beyond the infinitude of time and sample size, ever guarantees in GB that I ever will generate a ma. Instead of choosing wisely and deliberately, I am asked to flip a (hopefully fair) coin. I have to gamble for grammar!

The other choice, iconoclastic to GB, is to check deliberately for scope now, while I am on my way. This is what I call determinism—the determinism of a production model. I have the information at that point of the derivation, to determine the correct choice, so I will use it. There will be no need to filter out poor versions, because I won’t choose any.

The point would be that I “know enough” to do so (even though such knowledge should be relegated to Late Logical Form). The upshot, of course, is that I even knew at the beginning of the derivation. That is precisely what I mean by a production model. Here speakers know the thought they wish to convey, and have it in mind as they formulate the sentence.

I now consider the consequences of each of these two, in turn.

Alternative One: Random Insertion

If I follow the first course and randomly insert ma, the only guarantee that I will ever generate a sentence correctly comes from the infinitude of statistical probabilities of sheer chance. This technique is guilty of overgeneration since it will just as likely produce as many incorrect sentences as correct, on a statistical average. That is the coin toss effect—heads: we insert ma, tails: we don’t. Yes, it is statistically possible, albeit rarer with increasing n, but there is a 1 in 2^n chance of generating the sequence of heads and tails you chose. There are then only four combinations I can generate. These are shown in 7–10 below, with the corresponding examples repeated from sentences 2–5.

Only 8 and 9 are legal. In 8 since the walla is high, it can function as the scope marker and no walla is needed, in fact, it is strictly disallowed in this reading. In 9 walla needs to have scope over V’ and thus a Low Walla construction must be marked overtly with ma.

This review completes the Kenstowicz (1989) material that is crucial for the discussion here. I claim that it is inappropriate to allow grammars to ignorantly apply a rule in the face of a criterion that is available and could have been applied. This is a heavy price to pay for the stipulation that LF be postponed. Stipulations should be reserved for plugging loopholes until further insight can be found.

We have seen random insertion, which produces at least as many bad structures as it does good ones. The other alternative is deterministic insertion.
Possible Combinations | Examples
--- | ---
(7) High \(w alla\) / with \(ma\) | \(^{*}w alla\, \&a\m\, \&a\m, al \(ktaab\). = (5) 
(8) High \(w alla\) / without \(ma\) | \(w alla\, \&a\m, al \(ktaab\). = (4) 
(9) Low \(w alla\) / with \(ma\) | \(al\, \&a\m, \&a\m, walla\, ktaab = (2) 
(10) Low \(w alla\) / without \(ma\) | \(^{*}al\, \&a\m, walla\, ktaab = (3) 

Alternative Two: Deterministic Insertion

The overgeneration hypothesis allows us to generate all four sentence types, 7-10, and then filter out the wrong ones at Late LF. This rule for inserting \(ma\) in such a grammar is also uninsightful. It optionally inserts \(ma\) to the left of the verb (e.g., in an adjunction to \(V'\)) without a motive.

If, however, I supply the motive, which is to mark scope, then I am admitting that I can determine scope at such an early point. That would be the informed approach. Then the \(ma\)-Insertion Rule “knows what it is doing” and only generates 8 and 9 without generating 7 and 10 because the rule does not apply. Such insight has an impact on economy of derivation. For if I can and do “determine scope” at such a point prior to S-Structure, I have two ways to look at what has happened. On the one hand, I am, according to definition 6, to determine scope at LF, so LF must have come earlier than expected. On the other hand, Late LF is going to check to see that I did the scope determination correctly when I get down to the dovetail. If, as option a, I determined scope correctly, the check is a waste and that part of LF is useless. If on the other hand, as option b, I determined scope incorrectly, the \(ma\)-Insertion rule itself is a waste as written and needs to be fixed. But that is also not a permanent contribution of a Late LF. Once the rule is fixed, I am back to option a for a useless Late LF. Notice, moreover, that I cannot let Late LF repair a faulty 10 by supplying the missing \(ma\), because invisible PF can never know about the change and will mispronounce the output. Likewise, Late LF cannot repair a faulty 7 by deleting an extraneous \(ma\) for the same reason.

I have presented the data and analysis and explained the consequences to the model. I will now summarize these into a restatement of the paradox.

The Paradox

The paradox in GB’s dovetail is this: if I mark scope with \(ma\) in LF, I cannot hear \(ma\) in PF. If I hear \(ma\) in PF, it must have been inserted prior to LF, and therefore prior to the dovetail at S-Structure. That would mean that a meaningful semantic-based act occurred prior to the semantic component. The data show that the marker is phonetic yet also semantic. How can it be both? The one contradicts the other in GB.

This paradox in the theory hinges on the principle of economy of derivation. If scope is determined only at Late LF, we have an uninsightful and overgenerating insertion rule. It is uninsightful because it inserts randomly, ignoring the very criterion which will be considered in a module that is placed later by stipulation. It overgenerates because the probability of the random event with two outcomes is \(1/2\), and even that assumes that structures without the scope marker occur as frequently as those with it.

If scope is determinable earlier than S-Structure, providing insight to \(ma\)-Insertion would thereby reduce the overgeneration. It eliminates the need for a Late LF filter and eventually depletes the reason for having Late LF at all. For Late LF only duplicates checking processes that have gone on before, I will want to eliminate these by the same principle of economy as Chomsky invokes for his Minimalism.

All this conflict is resolved by Early LF, which captures the best of both worlds. Early LF recognizes the Meaning
level which drives many choices. It allows the ma-Insertion to be insightful. It precludes overgenerating 7 and 10.

The simplest way out of the paradox is to move the scope function to the earlier position. Let us now look more closely at the Early LF solution and its economies to the grammar.

The Solution: Early LF

To look at the economy of an Early LF solution, let us look at the trade-off in eliminating the filter that was checking for illegal occurrences of ma.

In the Late LF model, the correct example in 2 above, repeated here as 11, successfully passes a filter:

(11) walla ktaab\[ al ṭaalib ma gara ej\]

This LF shows the quantified ktaab in scope over a clause in which it is otherwise subordinate. In such a case, the filter checks for ma to the left of the verb. Let us call this the ma-Scope Filter, and the principle behind this filter the ma-Scope Principle. Thus 11 is deemed to be a legal sentence. However, the putative LF for the incorrect 3, *al ṭaalib gara walla ktaab, does not pass the filter for lack of ma:

(12) *w alla ktaab\[ al ṭaalib gara ej\]

Rather than waste the derivation, however, why not let the very ma-Principle which provides the filter provide a remedial rule instead? Rather than having the principle create a filter, have it create a rule, the ma-Scope Rule. Then, rather than throwing 7 away, I repair it by correctly inserting the ma to the left of the verb:

In an Early LF grammar, rather than Quantifier Raising, I have its mirror image, Quantifier Lowering, which replaces the bound variable ei with its quantifier walla ktaab\[:

This gives us the correct 2. I have just traded a filter for a rule. In so doing, I avoid overgenerating 3 which gets filtered out. That adds economy by reducing wasted by-product. The ma-Scope Rule indirectly “checks” for 3 by deriving it into correct 2. In fact, that is the only way 2 is derived. There is no reason to have ma in the sentence until the ma-Scope Principle puts it there. It explains both why (the scope) and how (the insertion) ma is found in that position. Since this principle is semantic, however, it belongs in an LF module. When LF is early, it can insert items and they can persist to PF.

In the Late LF model, I am left with the inconsistency that a scope marker inexplicably may be inserted in a previous component of the grammar but not be checked until I have spent energy deriving the entire S-Structure. If the ma was not inserted according to a proper analysis of scope, just how was the insertion decided? Could it also have been misplaced as well, say, as in 14?

(14) * al ṭaalib gara ma walla ktaab

Why should the grammar allow 14 to persist into later components and undergo anymore scrutiny or derivation?

If LF cannot feed PF, it should not be possible to insert lexical items in LF, for they will be phonetically invisible. Yet if it is in LF that scope is determined, it is only at that point (or one subsequent to it) that such a marker can in fact be knowledgeably placed. What determines the placement otherwise? If placement is random, I am overworking the filter, because the grammar by chance will wastefully generate many more incorrect structures (which will have to be weeded out) than correct ones. In a program with

(13) Derivation of (2) al ṭaalib ma gara walla ktaab:

(a) Given: walla ktaab\[ al ṭaalib gara ej\]
(b) Apply ma-Scope: walla ktaab\[ al ṭaalib ma gara ej\]
(c) Quantifier Lowering: ej\[ al ṭaalib ma gara [walla ktaab\[\]]\]
Late LF, the marker will have to be inserted prior to the dovetail in order for PF to pick it up and spell it out phonetically. That is the paradox of making semantic decisions prior to the semantic component itself. I am faced either with loss of modular integrity or with overgeneration.

There is no loss of economy by moving the filter earlier and turning it into a rule. If a scope marker inserted for semantic reasons, it must be in LF. If it is heard, it must insert prior to PF. Therefore, LF must occur prior to PF. Quantifier Lowering can provide D- and S-Structures so that LF does not need to follow these. Therefore, it can be the earliest module of all. That is the escape from the paradox. Let us now look at other consequences of an Early LF program.

All of the problems above are simplified or solved when the LF component is placed first. That is, if the derivation runs from Meaning to Form as the utterance is composed, then the decoder’s task is to decompose this from the given Form back again to its intended Meaning. I have pointed this out as I went. Here now are some additional consequences of Early LF.

**Semantic Selection and Theta-Roles**

An additional consequence of Early LF concerns another semantic pretense, similar to the scope case above. This time I address the semantic selection and theta-roles, a very early function and hence an interesting one if LF is going to narrowly precede it. Notice the appeals to meaning and even determination in the following explanation:

S-selection is largely determined by the inherent meaning (the conceptual structure) of lexical items. The verb (or concept) hit, for example, entails two participants ... s-selection operates in terms of semantic categories, called thematic roles or theta-roles. (Ouhalla 1994, 125 emphasis added)

It violates modular integrity to claim that the Theta Criterion “applies at LF . . . but extend[s] to other levels of syntactic representation by virtue of the Projection Principle” (Ouhalla 1994, 126), because I am then also forced to conclude also that LF is “essentially a syntactic level of representation” (126). Late LF looks more syntactic than necessary because it must take S-Structure as input. By contrast, Early LF is relieved of all but the most transparent S-Structures because the rules from S-Structure have not even applied yet. Therefore, Early LF is less syntactic, overall, than Late LF. That promotes economy.

**Logical Subjects and Objects**

Reference to logical subjects and objects also belongs to LF, since logic is a part of semantics. An appeal is made to these concepts, for example, to explain the DP movement in long passives—“the term ‘subject’ is used here in both its structural sense . . . and its semantic sense” (Ouhalla 1994, 78f emphasis added). Then why position LF so far down the derivational track from yet another fairly early point (as early as D-Structure), when in fact it would serve to have it available as soon as the first mention of semantic is made? GB’s answer is supposed to be that such is the exclusive domain of LF and that (per modular integrity) this shall not be violated.

While such persistence seems to promote consistency at this point, I now turn to an issue where it does not fair well at all: the issue of reconstruction effects.

**Reconstruction Effects**

Late LF structures have a lot of S-Structure material in them that is not relevant to a determination of meaning and do not enter into LF considerations. By its very nature, Late LF first inherits S-Structure as is, and is then allowed only covert movements to get the job done of determining meaning. But much of the idiosyncracies of language have already
been encoded, so to speak, into the various adjustments made since D-Structure. Early LF would not burdened with these, because they result from rules that would not have applied yet.

Chomsky (1995, 71 display renumbered) debates whether to allow reconstruction effects, or to admit that LF is not doing its job alone:

Some semantic properties . . . appear to be determined by S-Structure . . . independently . . . of the LF component. Let P be such a property. Then two accounts are possible.

(15) a. P holds at S-Structure
b. P holds at LF under reconstruction, that is, with the moved phrase treated "as if" it were in the position of its trace.

In fact, either alternative is ultimately fatal for Late LF: 15a patently so, for if S-Structure is allowed to do some of the semantic work, then why not D-Structure also, in which case, let D-Structure do all of it to avoid loss of modular integrity and turn it into Early LF with all its efficiencies. On the other hand, if we opt for reconstruction, then we will need the inefficiency of additional mechanisms to support it.

Reconstruction involves structures with a moved element, NP for instance, where structural relationships (linear precedence and c-command) are crucial to determine the antecedents of various pronouns (see Chomsky 1995, 73f).

In 16a he c-commands John and therefore cannot take John as its antecedent. That is expected. Likewise in 16b he does not c-command who or its trace e so that he could in fact refer to the same person, or not. The lack of c-command prevents the restriction against co-reference. There are two meanings possible, 17a and b.

The reconstruction effect comes in with 16c. In that sentence, whose is not c-commanded by he either, and yet Chomsky does not want it taken as its antecedent. His point is then that whose father acts as if it is in the original (premoved) position, because then he clearly c-commands whose and is supposed to preclude co-reference.

Notice, however, that if whose father has been moved to the left for S-Structure, and we are having to move it back for LF to interpret it, that we could have interpreted it back before it moved in the first place. In other words, this is another duplication of effort violation. Moving the NP back to its trace, duplicates the earlier level where the NP was. That first position is therefore meaningful, and the moved position is not. Refusing to use the meaningfulness of that first position is not principled, but only a stipulation of GB. Notice that if 16b is reconstructed into 19, no ill effects

(16) a. They said he admires John's father.
b. Whoi [ej said he admires John's father]?
c. Guess [whose father]i [they said he admires ej].

(17) a. Someonei said hej admires John's father, whoj is it?
b. Someonei said hej advires John's father, whoj is it?

(18) Guess _____ [they said he admires [whose father]].

(19) _____ [[Who] said he admires John's father]?

(20) Guess [whose father]i [they said he admires [whose father]i].
result for interpretation 19 because the c-command relations were not disturbed.

The so-called copying solution to reconstruction is even less promising. The item is not actually moved in this have-your-cake-and-eat-it-too approach, but rather copied to its new location. This preserves original c-command relationships. Presumably only the copy is discarded in LF, and only the original is discarded in PF. But that is also why it is inefficient: the two NPs look in 20 like they are on equal footing, yet the grammar, as we have just stated, will treat them with bias just like before when it gets to the dovetail, with PF taking the copy, and LF the erstwhile trace (original). It is still an instance of preserving the earlier structure in some way (as in Early LF) in order to use that structure later to help with interpretation.

Reconstruction raises the issue of whether Late LF is really doing its job. Another indication that it is not, after all is said and done, comes from Chomsky himself, and deserves brief mention.

Defective Convergence

After following numerous arguments for a variety of structures that depend on GB's Late LF for interpretation, it is disturbing to learn that even if a structure successfully converges (both LF and PF terminate without crashing), it can still "receive a defective interpretation" or otherwise end up as "semigibberish" (Chomsky 1995, 200, emphasis added).

If LF cannot complete the task of interpretation, why even bother? What does it mean to say that a structure has successfully converged through the interpretation component, if the interpretation is then defective? That is imponderable absurdity. On the other hand, Late LF, if switched to Early LF, ends up at the location of D-Structure. Do we then both Early LF and D-Structure? I turn to that topic next.

Extraneous D-Structure

Another advantage of Early LF is that it allows me to eliminate a level of representation. D-Structure now becomes an arbitrary point on the way from Early LF to S-Structure. The notion that D-Structure is the level "where all categories are in the positions where they are expected to be" (Ouhalla 1994, 56) and that S-Structure moves or chains them away is circular: they are where we expect, because we stipulate our expectations into the rules as we write them. If we can then apply said rules accurately, we can hardly be surprised if the outputs are now where we expect.

Where does that leave the Arabic ma particle? How do I decide where to expect ma to be in D-Structure if I cannot determine requisite scope until a Late LF? But notice that since "expected positions" refers to the accurate output of previous rules, Early LF places things where they belong sooner in the derivation. There is no arbitrary point along the way from Early LF to S-Structure to claim as an independent D-Structure level. S-Structure rules can take us directly to the surface. D-Structure is thus extraneous.

We have seen a simplification in the modules of the grammar, as relates to general levels in the derivation. Now let us look at the change in licensure this brings, in the case of parasitic gaps.

Parasitic Gaps

Parasitic gaps are licensed at S-Structure by a variable which does not c-command it, a condition "sometimes called the anti-c-command condition" (Ouhalla 1994, 218, notation adjusted). However, we are told that this licensure is not to apply beyond S-Structure into LF. Variables which arise from QR at Late LF are unable to license such a gap:

(21) S-structure:
   *I forgot who filed every/which article; without reading $e_1$
Late LF:
*every / which article [I forgot
who filed ei [without reading [pi]]

where pi is parasitic on ei. Ouhalla (1994, 219) wisely comments that the parasitic gap licensure restriction “should be derivable from some general and independent principles, although it is not easy to see how” given Chomsky’s framework. With Early LF, however, the licensure can be invoked at the appropriate point in the derivation and stay valid through to the end, without backwashing into the earlier invalid levels of Meaning. Early LF never interferes with subsequent licensure authorities of S-Structure, because S-Structure follows rather than precedes Early (but not Late) LF.

I have presented several additional points that Early LF resloves economica. Another issue affecting economy is procrastination of rule application.

Procrastinate versus Expedite

Procrastination is a Chomskyan (1995, 228) principle that delays doing something until the last possible point. I prefer to expedite functions in order to build the most efficient grammar (MEG) possible (McOmber 1979). Switching from a principle of procrastinate to expedite supports moving LF early as well. Instead of waiting until LF (as in English) to check features because they are strong (see Cook and Newson 1996) the features will have been used to drive the correct morphology in the first place, thus more cost avoidance for the grammar.

Chomsky’s Greed principle follows a similar fate. Instead of node hopping to feature check, I treat all agreement as post-semantic feature copying (see Chafe 1970, ch. 5ff). After choosing the “tasty tacos” from the Spanish lexicon I copy masculine and plural information from “taco-s” over to “tasty” and the. I change underlying I taco-s sabroso to I-o-s taco-s sabroso-s. Why bother generating el, las, la and then “check” to eliminate the wrong ones after the fact, when the information is at my figure tips? I have already decided to say taco-s as a plural since I determined there are more than one of them. How far away from production dare we move—and what does it accomplish? Whatever other abstractions we achieve, we must eventually deal with production to explain how language communicates. And why not start with this end in mind?

Tasty tacos is an example of deliberate feature copying versus post hoc feature checking. Now let us look at a longer distance phenomenon, (dis)anaphora.

Disanaphora

Other examples of scope that are overtly marked in PF, are the intonational variances we use to create what is traditionally labeled contrastive emphasis, as in these examples from McOmber (1977 and 1978):

(22) a. The boys who are pór need money, but the others don’t. {B ∩ ~P}

b. The boys who are poor need money, but the others don’t. {~B ∩ P}

c. The boys who are pór need money, but the others don’t. ~{B ∩ P}

The emphatic intonation on pór or on boys or both, each leads to a respective difference in meaning for the reference of the complementary disanaphor others:

(23) a. {B ∩ ~P] means that
    others = boys (but not any girls)

b. {~B ∩ P] means that
    others = poor girls (no boys)

c. ~{B ∩ P] means that
    others = rich boys and poor girls

The phonetic signals necessary to interpret data in 22 is heard in PF, but Late LF is deaf to these. Here are further examples based on Williams (1997, 605):
(24)  a. *Sue wore a blue gown knowing Jill would wear a red one.
    b. Sue wore a blue gown, knowing Jill would wear a red one.

In 24, one is anaphoric to gown, while blue is disanaphoric to red, in deliberate contrast. This pairing sets up a contrastive emphasis in the intonation that is used even for numeric data (619 mutatis mutandis):

(25)  a. "...then dial extension 8 4 3 4."
    (eight four three four)
    b. "...then dial extension *8 4 3 4."
    (eight four three four)

As an aside, Williams finally concludes that LF = PF. In other words, for him there should be no dovetail. Such a move would overcome the disability of LF to hear crucial phonetic clues, but would not solve the blind overgeneration problems discussed above, nor the resulting problems of semiproduction GB incurs when we generate structures randomly, ignoring available semantic determinants. Therefore, while I agree that there is no dovetail, the fact that Late LF = PF is even clearer from a production model: the PF heard is actually the beginning point of interpretation (the erstwhile LF); that is, on the hearer’s track tracing and analyzing Form back into Meaning.

Zero Syntax

I modify Zero Syntax (pace Pesetsky 1995) to show that structures fresh out of Deep Meaning look like his layered structures, and then are linearized (à la Chafre) into the cascade-like trees as we proceed toward Surface Form. I am thus resurrecting Groat (1992) in a crucially mirrored image to obviate the fatal flaw Pesetsky found. I also depart from Groat with my Early LF.

Summary of Evidence for Early LF

I have presented several examples of issues that promote simplicity and economy in an Early LF. After explaining the Arabic overt scope marker, I also took a look at the concept of “logical” subjects and objects, the irony of reconstruction effects, the extraneity of D-Structure, the struggle of parasitic gaps, then I contrasted the principle of GB’s procrastination with MEG’s Expedite—all in the name of economy to the grammar. Finally, an additional example of clash between PF and LF shows up with the contrastive emphasis of disanaphora.

In every case, it is possible for GB to obviate the (efficient) position of Early Meaning by overgenerating and filtering out. Even if such filters appear equivalently accurate, and I do not argue that moot issue, the determinative Early LF model is, ceteris paribus, a more highly valued grammar, judging by Occam’s Razor.

Having reviewed evidence for Early LF, I now recapitulate my conclusions.

Conclusions

The scope of this paper is to argue on Early Logical Form. As I continue to repair the GB model, at the risk of pouring “new wine into old bottles,” I see that after moving LF, there is no longer a clean point which I can distinctly call D-Structure. It is, in a sense, absorbed by LF (I could use either label). Then there is little motivation for calling the midpoint “S-Structure,” in particular, since it is just as much surface of the meaning component as it is the deepest level of final form. New labels would be more insightful and all the more conveniently abbreviated.

If I have Early Logical Form, this is the meaning end of the processing. The encoder has a meaning in mind and wants to express this into a surface Form. The gamut then runs from Early or Deep
Meaning, through all the semantic and postsemantic processing (à la Chafe 1970). Then I arrive at the Late(st) or “Surface” Meaning. That comprises the boundary between Meaning and Form. Late Meaning is Early Form; that is, the end of the first module is the very starting point of the second. Let us simply call it the Midpoint, with that understanding that it is the “Checkpoint Charlie” between the two. Then from Early Form I have various phonological processes that take me finally to the surface: Late (Surface) Form. That is how I encode a sentence. The listener, to decode, runs backward through the derivation to arrive at the early “deep” meaning which was conveyed. The decoder must retrace steps, disambiguate, and in a real sense undo the derivation as it was encoded in the first place, running back again, from Form to Meaning.

Let me reiterate that I am following the economy principle of Occam’s Razor which leads me to (1) avoid duplication of effort, (2) avoid overgeneration with its spoilage and extraneous filters, (3) promote modular integrity, which tells me to keep LF intact, rather than splitting it between scope insertions and scope filters, (4) promote perspicuity, changing hindsight to foresight wherever possible, to add insight and oversight to the various processes in lieu of random ones that ignore available criteria, (5) equate Late Meaning with Early Form, and (6) use a processing model that follows the flow from speaker to listener (encoder to decoder) or back again, by running forward or backward respectively through the paradigm.

The undoing of Late LF model was based on the patent impossibility of having an overt scope marker, computed in LF but paradoxically invisible to pronunciation at PF. Moving LF to the front of the derivation precludes the paradox but changes the scope (pun intended) of LF considerably, from an interpretive to a deterministic production model. The code then runs from Meaning to Form and back again.

My conclusion is to abandon all interpretivistic models in favor of the most efficient grammar possible: a bilateral production model. It first encodes a sentence from Meaning to Form: that is expression. It then reverses the process back again to decode, from (the given) Form back to Meaning: that is interpretation. It is ironic, then, to compare this picture with Chomsky’s interpretivism and realize that his is actually a partial production model. Interpretation is always a decoding process. That is, it is the search for the original meaning of the message, that is lurking somewhere behind the form. Interpretation takes place on an utterance that was built with some original meaning in mind as the driving force generating the structure. Chomskyan interpretation is possible, at the end of his derivation, but he crucially leaves out of the derivation the original occurrence of the very interpretation that the encoder used in the first place, and for which the decoder now seeks. How much better for the grammar to run through the rules, produce an interpretation, and then match this with the original as a proof. For grammar to otherwise become so abstract that it manipulates structures while abstaining from recognition of the meaning that underlies those forms, is to take from grammar its very raison d’être: that grammar is the tool used to express thought into language.

NOTES

1. Pluralitas non est ponenda sine necessitate, roughly “necessity is the mother of complexity”—William of Occam, ca. 1285-1349, a Franciscan minimalist, probably did not invent the phrase, but quoted it so effectively and so often that it has since been attributed to him honoris causa. Following St. Francis all the more closely, he struggled with the Pope (John XXII) over various issues, who in turn excommunicated him. True to form, William responded with a treatise showing that the logic used in his own excommunication entailed that the Pope was a heretic himself.
2. The other possible reading, [there is] no student [who] did not read the book, uses sentential *ma* which is then the standard negative. The double negatives cancel, meaning that all the students read the book.

3. His data were given to discuss extraction with the null subject parameter. My focus with his data, however, is on how and where the *ma* comes to be inserted itself.

4. Again, this is according to Chomsky: hoist with his own petard. I see a possible answer where he does in fact refer to whose: “You’ll never guess whose father he admires: his own!” Our point here is not to explain the structure our way, but to use Chomsky’s own accepted evidence to refute himself.

5. To make matters worse, instead of just saying that the moved piece was copied into its new place, the literature still claims to the moved NP was completely moved away (deleted from its original position), and that the original was then restored by having copied the moved version back. That spends (wastes) twice the effort. Let the reader imagine word processing that way.

6. In fact, government itself (the G of GB) is also at risk. Last reports are that it can no longer remain “as a fundamental notion of the theory” (Cook and Newson 1996, 316).

REFERENCES


Utah’s 2002 Olympics: The Role of Foreign Languages

Marian Babirecki-Labrum

INTRODUCTION
Salt Lake City will host the Winter Olympics in 2002. When Salt Lake City was chosen, it was quickly noted that the state of Utah has one of the largest percentages of foreign language speakers per capita. This particular characteristic has been noted as a plus for the Olympics. The truth is that this advantage may not necessarily be sufficient to meet some of the foreign language needs that the Olympics require. This is because people often mistake the ability to speak a foreign language with the skills that are needed to provide language translation and interpretation services during the Olympics.

This paper will first define “translator” and “interpreter.” Second, it will identify the official role of foreign languages at the Olympics according to the charter of the International Olympic Committee (IOC) and will look at how the Salt Lake Organizing Committee (SLOC) is planning to comply with the expectations of the IOC. Third, it will address the perception that the ability to speak a foreign language qualifies a person to be a translator or an interpreter for the Olympic Games. Fourth, it will address some of the questions troubling BYU students concerning the Olympics and provide possible answers.

TRANSLATION AND INTERPRETATION—A PROFESSION
Translation and interpretation are professional services provided by highly trained people. A translator is a person who facilitates communication between at least two different languages by writing. In other words, a translator writes. An interpreter is a person who facilitates communication between at least two different languages via the spoken word. An interpreter, therefore, speaks. A translator works with written text and produces a written text. An interpreter generally works with a verbal text, and the end product of an interpreter is an oral rendition of the source message.

During the Olympics, a translator needs to produce written documents in a language different than that of the original text. These documents may deal with IOC matters, host city organizing committee matters, and any official communiqué issued by the IOC or the host city organizing committee. These documents are often used by the media and kept for the record. An interpreter, on the other hand, must be able to work in several modes: as a simultaneous interpreter, as a consecutive interpreter, and sometimes as an official escort interpreter.

A simultaneous interpreter works in a booth, uses electronic equipment, and must be able to convert a message heard over earphones in one language into another language almost at the same speed as the speaker speaks. In simultaneous interpretation, there
is a lag of a few seconds between the speaker and the interpreter, but at no time does the interpreter completely stop speaking. Simultaneous interpretation allows for the same speech to be interpreted into several languages by several interpreters working at the same time. In simultaneous interpretation, interpreters work in teams (two to a booth) and are isolated in sound-proof booths dedicated to each language.

A consecutive interpreter is trained to listen to the entire speech, take notes of key elements of the speech using a highly specialized annotation system, and then reconstruct the speech in another language after the speaker has completed his or her rendition. A consecutive interpreter becomes the “speaker” after the speech has been delivered by the original speaker. This allows interpretation into only one language, because the interpreter usually speaks from the same podium used by the speaker.

When a professional consecutive interpreter is not available, or when the organizers of the meeting deem it preferable, consecutive interpretation takes the form of what I term “ping-pong interpreting.” In this instance, both the speaker and the interpreter usually stand at the podium. The trick is to have the speaker “chunk” his or her speech so that the interpreter may repeat what has been said but in the target language. This form of modified consecutive interpretation requires that the speaker only speak a short paragraph (“chunk” in the technical lingo) at a time; the interpreter then has total recall of the “chunk” and can deliver its interpretation. Hence, my nickname, “ping-pong interpreting.” This mode of consecutive interpretation allows for work in only one new target language.

Translators and interpreters are sometimes required to give an “oral translation” of a written document. This mode of oral translation is performed simultaneously. The translator or interpreter speaks at the same time as he or she reads the document. The document is written in one language, and the translator/interpreter vocally reports it in another language. This mode is called “sight translation,” and there are no pauses between reading the document and providing an oral rendition of the document. Sight translation is frequently used in the courts when a foreign language document needs to be entered into the record as evidence/information.

Another mode of interpretation is “escort interpreting.” In this mode, the interpreter is required to switch back and forth between languages. Escort interpreting requires fluidity in both languages and an intimate knowledge of the social graces of both countries. An escort interpreter usually works with two people who speak different languages and need to communicate with each other during all types of activities, from peace negotiations to dinner parties and theatrical functions. The escort interpreter becomes the voice of each client in the language that he or she does not speak. Bilingual proficiency and social graces are a must, because the escort interpreter usually sits between both clients and is required to blend with the occasion.

While a translator is usually required to work in a secluded environment and can avail himself or herself of all types of reference materials, an interpreter must resolve any language problem on the spot and without the recourse of using reference materials. Thus, translators very seldom work as interpreters, and interpreters seldom work as translators. These two professions are often the subject of attention because they are often misrepresented or misunderstood. The following exchange illustrates the point.

In his State of the Union Address of 1999, President Clinton stated that technology was producing many marvels, including machines that “translate as fast as you can speak.” This statement prompted the following remarks, made
in a letter to President Clinton on January 31, 2000. The letter was sent by Ann G. Macfarlane, President of the American Translators Association. In it she stated that

Thanks to the historic economic expansion you have presided over in your years in office, there has never been a better time to be a translator or an interpreter. The market for language services is booming and the number of translators and interpreters is increasing everyday . . . . The American Public needs to know what a tricky, challenging and high-level task every translator and interpreter engages in when he or she sets to work. Please speak to this reality . . . . Please, don't build false hopes by talking of [translation] machines that are still, unfortunately, in the realm of fantasy-land—where they will remain for the indefinite future.

THE ROLE OF FOREIGN LANGUAGES ACCORDING TO THE OLYMPIC CHARTER

Article 25 of the Olympic Charter addresses the "power and duties" of the IOC during the Olympic Games. Paragraph 6.10 states that the IOC

enacts, in the form it deems most appropriate, (codes, rulings, norms, guidelines, guides, instructions) all regulations necessary to ensure the proper implementation of the Olympic Charter and the organization of the Olympic Games. (1999)

The role of foreign languages during an Olympic Games is also defined in this official document. Article 27 of the Olympic Charter of the International Olympic Committee is entitled "Languages." It states that

1. The official languages of the IOC are French and English, 2. At all IOC Sessions, simultaneous interpretation into German, Spanish, Russian and Arabic must also be provided, 3. In the case of divergence between the French and English text of the Olympic Charter and all other IOC documents, the French text shall prevail unless expressly provided otherwise in writing. (1999)

It is clear from reading the Olympic Charter that the role of foreign languages during the Olympic Games is a major concern to the IOC and that they have the power and duty to see that such concerns are met by the host city of the Olympic Games. During the Olympic Games, translators and interpreters are needed, and all modes of interpretation are called for. However, there is a big difference between providing these services as a professional and as a volunteer. The official team of translators and interpreters required by the IOC and the SLOC is composed of seasoned professionals who generally work with several languages and have experience with the terminology needed to cover the games. They also have the added experience of providing their services for other international meetings. Volunteers are recruited within the host city population. Official translators and interpreters who work for the Organizing Committee of the Olympic Games are well paid for their services. Volunteer translators and interpreters are people who want to donate their time. Their services are not financially remunerated.

SLOC PLANS FOR COMPLIANCE

According to an article that appeared in the Salt Lake Tribune on February 7, 2000, the Salt Lake Organizing Committee has hired Bill Weber, an Olympic veteran, "to assemble a cadre of professional interpreters to deal with highly sensitive issues of the Games, and to help set up a testing and training system for larger groups of volunteer interpreters" (Gorell 2000).

Bill Weber heads Language Service International, which is "the only Language Service Corporation in the U.S. which is owned and managed by a
professional conference interpreter” (Language Services International 2000). Bill Weber and his team have provided interpretation services for the Summer Olympic Games in Los Angeles, Atlanta, Barcelona, Sydney 2000, as well as the Winter Olympic Games in Nagano. Bill Weber himself has interpreted at seven Summer and Winter Olympic Games, starting with the Winter Olympics in Grenoble, France, in 1968. He grew up in a German-French household in the Bavarian region of Germany. He soon added English to his language proficiency and later learned to communicate in Dutch, Spanish, and Italian. He earned a degree in translation and conference interpretation at the University of Geneva in 1964 and spent fourteen years as the dean of the Translation and Interpretation Division at the Monterey Institute of International Studies in California (ibid.). His credentials are well known in the academic and professional world of translation and interpretation.

The Salt Lake Organizing Committee has also created a web page (saltlake2002.com) that lists an on-line section for “Volunteer Registration and General Information.” This web page lists volunteer positions and describes the services volunteers need to provide. Under “Language Assistants/Interpreting,” the following services are listed: “Provide interpreting services to assist athletes, officials and members of the Olympic/Paralympic Family. Interpreting experience is preferred.” Under “Translation,” the following is stated: “Provides translation services to assist athletes, officials and members of the Olympic Family. Official translation accreditation is preferred” (Salt Lake 2002 Volunteer 2000).

Note that both translation and interpretation job descriptions require experience and/or official accreditation. When this paper was presented to an audience of highly motivated prospective volunteers for the Salt Lake 2002 Olympic Games, who also had experience with speaking a foreign language, the reaction was one of dismay. They thought of themselves as highly qualified individuals to be hired to provide translation and interpretation services simply because they “spoke” a foreign language. They had no idea that providing language services at the Olympic Games requires more than the ability to speak a foreign language. The Salt Lake Tribune’s article of February 7, 2000, however, clearly states that “The Salt Lake Organizing Committee is developing a four-tier program to meet the demanding language-service needs at the Games. It has a ready-made talent pool because of the LDS Church’s extensive missionary program. But simply having an ability to speak a foreign languages does not translate into being a good interpreter” (Gorell 2000).

EQUATING FOREIGN LANGUAGE SPEAKING WITH TRANSLATION AND INTERPRETATION

It is not unusual to find that translation and interpretation are often equated with the ability to speak a foreign language. There are several reasons why this notion is particularly prevalent among LDS people. For example, in an address to the National Press Club on March 8, 2000, in Washington, D.C., President Gordon B. Hinckley, head of the LDS Church, stated that

As you know, the Winter Olympics are coming to Salt Lake City in 2002. If requested, we shall have no trouble in offering capable translators and interpreters for the many languages that will be represented. I can walk down the streets of Salt Lake City and meet people who speak a score or more of languages—Spanish, Portuguese, German, French, Italian, Danish, Dutch, Swedish, Norwegian, Finnish, Albanian, Czech, Slovak, Serbian, Japanese, Chinese—both
Mandarin and Cantonese—Mongolian, Estonian, and various dialects of the Philippines, and what have you. I think it is a tremendous phenomenon. All have learned these languages while serving as missionaries.” This impression is further echoed in a statement provided by the governor of Utah, Michael O. Leavitt, in the 2000 State of the State Address. In it he made reference to the 2002 Olympics and stated, “Let anyone who looks see the complete Olympic montage. . . . I see a photo album like no other: A volunteer directing traffic in Snowbasin; a street in Heber City bustling with tourists; welcome signs printed in a hundred different languages.

Clearly, both statements recognize the relationship of foreign languages and the Olympics. However, they also reflect the view that speaking a foreign language is enough to meet the needs of the IOC and the SLOC during the Olympic Games. This view, however, is not limited to people in Utah. It has been present in other Olympic Games. A February 4, 1998, Olympic Winter Games—Nagano article in the *ShinanoMainichi* newspaper is headed by the title, “7,000 Language Volunteers To Be Put to the Test.” In it Ichiyo Kobayashi of the Nagano prefectural government’s International Relations Division stated that “The success of the Feb. 7-22 Winter Games rests largely on the shoulders of the Game’s 35,000 volunteers, and the ability of those volunteers to overcome language barriers is of the utmost importance” (*The ShinanoMainichi Newspaper*). A similar view is echoed in the fact sheet of February 2, 2000, on the official site of the Sydney 2000 Olympic Games. It states that “At 30 June 1995, 23 per cent of the Australian population was born overseas, while 13.7 per cent of Australians were born in non-English speaking countries” (*The multicultural games*, April 2000). It also mentioned that over seventy languages were spoken, not including aboriginal languages, and that the Organizing Olympic Committee in Sydney engaged the consultation of the Ethnic Affairs Commission and other equivalences to ensure that the volunteer program maximized the various language skills found in the community.

From statements such as those quoted above, it is obvious that no one disputes that language services are needed at the Olympic Games. What is not clearly understood is that the role foreign languages play at the Olympic Games is, at least, twofold. One role is played at the official level of the games, and another is played at the volunteer level. The official role of foreign languages at the games, according to the IOC charter and the SLOC response to it, is being met by the official appointment of highly trained professionals. The second role is being met by volunteers who provide language services as needed. The former requires experts in the field of translation and interpretation of official Olympic matters, who are very well paid for their work. The latter, on the other hand, requires being a volunteer with the ability to speak a foreign language. This position is not financially remunerated. That is not to say that volunteers are not compensated for their efforts.

According to the 2002 Volunteer Application information sheet on the Web, volunteers for the Salt Lake 2002 Olympics will “receive an Olympic or Paralympic uniform, a ticket to the dress rehearsal of the Opening Ceremony, food and beverages while working, free transportation to and from venues, and Olympic memorabilia upon completion of their assignment” (*Team 2002: One Chance in a Lifetime*, March 2000). In the Spring 1999 issue (1) of the *Volunteers* newsletter of the 2002 Salt Lake Olympic Games, a volunteer is described as a person who is generally 38 years old, “has previous volunteer experience and is proficient in a foreign language (41 per cent speak a language other than English).”
QUESTIONS TROUBLING BYU STUDENTS

It is evident that many BYU students are qualified for the role of volunteers. Many BYU students speak a foreign language and are willing to be a part of the Olympic Games. However, being a volunteer is no small matter, and it requires a great deal of commitment and resolve beyond the knowledge of a foreign language. Volunteers must meet many requirements, and BYU students wishing to meet those requirements may have to use a great deal of creativity.

The 2002 SLOC has stated that volunteers

have a better chance of being selected if their schedules are flexible—that is, they are available to work eight to ten-hour shifts any day of the week, including Saturday and Sunday, during the 17-day period (eleven business days) for the Olympic Winter Games or the 10-day period (six business days) for the Paralympic Winter Games. Regardless of their assignments, all Game volunteers must be willing to work under demanding conditions and committed to the success of the 2002 Olympic and Paralympic Winter Games (Salt Lake 2002 Volunteer, February 2000).

BYU students have asked themselves how they are going to meet these requirements. The question arises from information published by the Deseret News. In an article published February 4, 2000, Utahns were informed that

The three biggest universities in Utah have all decided, to one degree or another, to suspend course work during the Olympic Games. . . . In Utah County, the 50,000 students who attend Brigham Young University and Utah Valley State College will have to juggle their studies with any Olympic-watching or volunteer efforts in 2002. Classes will start the first week of January and continue uninterrupted for the 16-week semester, say officials at both schools.

In other words, BYU’s students who wish to volunteer need to plan their Winter 2002 class schedule with classes offered during the second block of Winter Semester to be available during the 2002 Olympic Games. According to statements made by Noel Reynolds, BYU associate academic vice president for undergraduate education, “With the block system, the school can easily adjust the schedule of classes for students most likely to be involved in the Olympic activities.” Reynolds said an estimated one thousand journalism, foreign language, performing arts, and physical education students from BYU plan to volunteer or work internships during the two-week world event.

BYU students have also expressed dismay at the fact that they don’t seem to qualify for the jobs of translators and interpreters because they don’t meet the requirements established by the IOC and the SLOC. Although they speak a foreign language, they are not accredited as translators or interpreters. However, there is still a way to use those talents. This paper has dealt mainly with the official role foreign languages play during the Olympic Games. However, the Olympic Games extend to more than Olympic events and, therefore, the need for language service specialists in the private sector is enormous. Any business catering to the thousands of visitors expected at the 2002 Olympics will, of necessity, need the assistance of speakers of foreign languages. This is where a person who speaks a foreign language really has a chance to provide a service that better meets the requirement of speaking a foreign language.

In conclusion, it is clear that human translators and interpreters will be needed during the 2002 Salt Lake Olympics. Utah has a large population of foreign language speakers. However, the language services required to support the
Olympics—at the official level or in the private sector—can only be met with proper training. It is clear that speaking a foreign language does not automatically qualify a person to translate or interpret. Speaking a foreign language is only the beginning in the long process of training required to perform the many tasks expected of a person who wishes to provide language services at an Olympic Games. And, above all, BYU students need to rely on a creative schedule if they wish to volunteer for the 2002 Olympics.

REFERENCES


Globalization and the Need for International Language Standards

Alan K. Melby

Before discussing international standards, we will explore five interrelated terms that are often used in discussions of global marketing of high-tech products: globalization, internationalization, locale, localization, and translation.

GLOBALIZATION

Globalization is the business process of making a product or service available for sale in other countries. In this paper, the focus will be on high-tech products like telephones, automobiles, DVD players, airplanes, photocopiers, and, of course, general-purpose computers and software. High-tech products typically have documentation associated with them, and this documentation can take such forms as a user’s manual—either on paper or as on-line help—a technician’s maintenance and repair manual, or a set of menus and messages that form the user interface for a piece of software or for a product with an embedded computer. The information in these various forms of documentation is often called “content” when distinguished from its presentation. The same content can be presented as a Word document on paper or as a Web page. The particular focus of this paper is not on products themselves, but rather on the content of their associated documentation and user interface. Thus, the standards relating to this content can be called “content globalization standards.”

The trend in the world economy is clearly toward ever-increasing globalization of products. This naturally leads to the following question: When a product is marketed in a country other than its country of origin, does the product need to be modified in some way? An electrical appliance built for use in the United States cannot simply be shipped to England or France and plugged in. First of all, the plug won’t fit, and secondly, the voltage will be twice that of a U.S. outlet. Unless this difference in voltage is taken into account during the product design stage, it may be dangerous to both the consumer and the product to use it in another country.

In the early 1980s, just after the IBM PC came out, I took my PC and monitor as checked luggage to London for a conference so that I could demonstrate some software I had developed. I knew I needed to deal with the voltage difference, so I took my equipment to a London computer store to get a voltage-reducing power converter. They brought out the wrong kind, and when we turned on my PC, sparks flew and my computer practically exploded. Now I can take my laptop computer to most countries, snap on one of the little adapters from my kit, and just plug it in. The computer automatically adapts to any voltage from 100 to 230 and to either of the commonly used frequencies, fifty or sixty cycles per second.

The engineering process of making a product more easily adaptable for use in other countries is called internationalization. My laptop required some slick engineering...
to internationalize it. A low-tech product like a bag of wheat may require only a change of labels on the bag to market it in another country, while a high-tech product like a mobile phone may require considerable internationalization. Most mobile phones made for the U.S. market will not work in Europe, since they use different frequencies and codes to communicate with cellular stations. This is a source of irritation for people like me who often have business in Europe—and it gets worse. If my mobile phone would work in Spain, I would be able to take it there and use it. But a phone that has English messages that appear on its little screen would not do very well if someone tried to market it to monolingual Spaniards. And to complicate things even more, suppose you want to market the same phone in Switzerland where there are three major languages used (German, French, and Italian) and a minor fourth language. Each combination of a country and a language is called a locale. Thus Switzerland has three major locales: German-speaking Switzerland, French-speaking Switzerland, and Italian-speaking Switzerland. And British English is distinguished from American English as the U.K.-English locale vs. the U.S.A.-English locale.

Globalization does not, of course, imply that every product will be marketed in every locale. Part of the business process is to decide which locales to enter, and when and what aspects of a product to adjust to the peculiarities of a particular locale. The process of full adjustment is called localization, which includes translation of the documentation and adaptation, as needed, of the non-textual aspects of the product, such as its colors, symbols, and voltage. Thus, localization is a complex process that includes translation and is facilitated by prior internationalization of the product during the design phase.

Obviously, localization of a sophisticated product with considerable documentation can be difficult and expensive. So careful thought must be put into the first issue in the globalization process: to localize or not to localize, that is the question. An interesting aspect of world languages at the beginning of the twenty-first century is that even though the use of English worldwide has increased dramatically since the end of World War II, that increase has been in the percentage of the world population that speaks English as a second language rather than as the mother tongue. In how many countries have parents switched to speaking English to their infants?

Another aspect of language attitudes is that as more nonnative speakers of English become capable of using products whose documentation has not been localized, fewer are willing to purchase products that have not been localized. This is a fascinating sociolinguistic phenomenon. In Europe, countries have gradually become more united as the Common Market has become the European Community and now the European Union. European countries have been willing to give up their border patrols and have let some of their laws become European laws. They are even giving up their national currencies in favor of the Euro. But not one country has considered giving up its native language!

The net result of these dramatic world changes is that a whole new industry, the localization industry, has appeared, mainly over the past twenty or thirty years. The need for localization is enormous. With just over six billion people on earth now (Time Almanac 2000, 153) and with only about 300 million native speakers of English (www.sil.org/ethnologue/top100.html) and about 300 million more nonnative speakers of English (English Today, 1980, extrapolated), the potential market for localized products originally in English is easily over one billion people.
The localization industry consists of three main groups: high-tech product vendors, localization service providers, and localization tool developers. The localization industry is part of what has come to be known as “the language industries.” The language industries include (a) technical (as opposed to literary) writing, (b) document management (including word processing, indexing, and retrieval), (c) terminology management, (d) localization (including translation), and (e) publishing (including traditional paper publishing as well as Web publishing).

These five aspects of language industry are intertwined. A discussion of terminology management will illustrate this. One might begin by asking why terms should be managed at all. Isn’t variety the spice of life, including literature? It turns out that this dictum applies only to general vocabulary, not to domain-specific terminology. In general vocabulary, you might “help a friend out of a jam” in one sentence and “extricate her from difficulty” in another to avoid saying again that you got her out of trouble. However, suppose that the maintenance manual of an automobile sometimes referred to the steering wheel as “the wheel-angle manipulator” and other times as “the manually-activated directionalizer,” just to avoid continually calling it “the steering wheel.” And further suppose that the “manually-activated directionalizer” also referred to the knob that adjusts the radio antenna. Variety and ambiguity can be good and interesting in general vocabulary, but in terminology, unambiguous consistency is highly prized.

New terms are being developed every day for high-tech products, and they need to be used consistently throughout the life of a document, beginning with its birth at authoring time, continuing with its venturing off into the world at publication time and its rebirth at translation time. Today, few translations are done using typewriters. The results of publishing are fed back into some document management system for use in the localization step, and the same terminology used at authoring time must be managed in multiple languages for consistency.

The Need for Language Industry Standards

The language industries have become heavily dependent on productivity tools. Today, an accountant could not compete without the electronic spreadsheet as a productivity tool. More and more architects are using computer-aided design software as well. Likewise, the language industries depend on software tools to support their activities. Few authors would think of giving up word processing and going back to a manual typewriter. More documents are being printed from desktop publishing masters. Translators are beginning to rely on terminology management software and translation memory software. Translation memory is not commonly used outside the localization and translation sectors of the language industries, so further explanation is necessary.

Some localization tools are specifically designed for use with the messages and menus in computer software; others are designed for manuals or on-line help. One type of tool, sometimes confused with terminology management, is translation memory lookup. Translation memory lookup deals with segments. Typically, segments consisting of previously translated text are retrieved, along with their translation, and inserted into a document. Terminology management deals with smaller units of language, namely, individual terms that consist of one or more words that designate a single concept. Admittedly, there can be a degree of overlap between translation memory databases and terminology
databases when there are very short segments and very long terms. Terminological databases, however, typically have a much more complex internal structure and include extra information such as parts of speech, grammatical gender, indication of domain of knowledge, and definitions—none of which would be found in a typical translation memory database.

Machine translation is yet another tool used in the language industries. No single tool applies to all tasks, and that is certainly the case with machine translation, which is the process of taking a text apart, sentence by sentence, producing some representation of its structure and meaning, and formally creating a text in another language that approximates a translation of the source text.

Now, having introduced high-tech product globalization and its connection to the language industries, and having introduced some of the tools to process language, we can discuss the need for international standards relating to content globalization.

Translation memory and machine translation are often used in conjunction with terminology management. A given term in a specific domain for a specific client should be translated consistently, whether it is found in a segment of translation memory, a machine translation lexicon, or an entry in a terminology database. Spell checking in the final desktop publishing phase needs to be coordinated with the terms used in the translation phase. If all the tools used in the life of a document—including authoring, translation, and publishing tools—were part of an integrated suite developed by one company, perhaps there would be some mechanism for maintaining consistency. The fact is, however, that the state of the language industries, now and in the foreseeable future, is multiple competing tool developers. This leads directly to the need for the first of two types of standards: data exchange standards.

There are three complex types of data that flow between the tools used in the production of multilingual documents. This production flow is sometimes called the document production chain. The various tools used at various points along the chain can be called components. The three types of data are markup text, translation memory, and terminological data. We have already discussed translation memory and terminological data, but we have not yet mentioned markup. The term “markup” simply indicates the information that goes along with a text to tell how it should be presented on a screen or a page. For example, if I want to make the words “dog” and “cat” appear in bold, I might mark it up as follows:

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The difference between a <bold> dog <bold> and a <bold> cat <bold> is that a dog is loyal to its master while a cat elicits loyalty in its human house guest.
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The problem is, there are many different kinds of markup, just as there are many different kinds of translation memory databases and terminology databases. The solution is to define a standard intermediate format for representing these kinds of data so that they can be passed or exchanged from one component to another without undue loss of information. A rough analogy for data exchange standards is the standards that define how a VCR, television, video game, and hi-fi set all connect together so that audio and video data can flow between components. This normally works well because of industry standards, but sometimes it breaks down. For example, if you bring back a videocassette from Europe, it will probably not play on your VCR, since Europe uses a different format for video data.

For over twenty years, I have been working with various groups to achieve widespread agreement on data exchange standards for the language industries. In the past few years, I have also been working with others on business practice standards for the translation industry, in
Globalization and the Need for International Language Standards

hopes of reducing the number of misunderstandings between requesters and suppliers of translation. In addition, I am associated with efforts to develop content markup standards. These efforts concerning the second sort of standards take patience and endurance, but some of them are paying off. A standard for exchanging translation memory data, that I helped define, has become widely accepted in the language industry. And a project called SALT, which has a mission to refine, test, and promote data exchange standards for terminological data, began in January 2000 with substantial funding from the European Union. It has subsequently obtained additional funding from the Microsoft Corporation.

The SALT project builds on the results of other projects, such as the Otelo project, which worked on the problem of allowing several machine translation systems to share the same terminology. The SALT project also builds on data exchange standards being developed within various standards organizations. I am currently involved in three of these: ISO Technical Committee 37, the OSCAR group of the Localization Industry Standards Association, and the OLIF Consortium. For more information on the SALT project, see the www.ttt.org website.

Implications of Content Globalization Standards

What difference does it make whether or not there are content globalization standards for the language industries? Only a few people are ever directly involved in the definition of standards. If you are not one of them, then what impact might they have on you? If you are a developer of language technology software, they will impact you in that you will have to implement them. If you work in the language industries, they will facilitate your job by making it easier to assemble an efficient multilingual information management system in order to remain competitive. If you are an end user of products from another part of the globe, perhaps the implementation of content globalization standards will improve the quality of the content. For example, the use of terminology throughout the documentation and user interface might be more consistent. Maybe you will finally even be able to understand the instructions for programming your VCR. On second thought, that might be too much to ask. Some things in life must remain a mystery.

References
