THE OXFORD HANDBOOK OF
APPLIED LINGUISTICS

EDITED BY

Robert B. Kaplan

EDITORIAL ADVISORY BOARD

William Grabe

Merrill Swain

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UNIVERSITY PRESS

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PART I

INTRODUCTION

CHAPTER 1

APPLIED LINGUISTICS: AN EMERGING DISCIPLINE FOR THE TWENTY-FIRST CENTURY

WILLIAM GRABE

A realistic history of the field of applied linguistics would place its origins at around the year 1948 with the publication of the first issue of the journal *Language Learning: A Journal of Applied Linguistics*. While there are certainly other possible starting points, particularly from a British perspective, this time still accords roughly with any discussion of the beginning of applied linguistics.

Over the years, the term *applied linguistics* has been defined and interpreted in a number of different ways, and I continue that exploration in this overview. In the 1950s, the term was commonly meant to reflect the insights of structural and functional linguists that could be applied directly to second language teaching, and also, in some cases, to first language (L1) literacy and language arts issues as well. In the 1960s, the term continued to be associated with the application of linguistics-to-language teaching and related practical language issues (Corder 1973; Halliday, McIntosh and Strevens 1964; Rivers 1968). At the same time, applied linguists became involved in matters of language assessment, language policies, and a new field of second language acquisition (SLA), focusing on learning, rather than on teaching. So, by the late 1960s, one saw both a reinforcement of the centrality of second language teaching as applied linguistics, and also an expansion

into other realms of language use. In this respect, applied linguistics began to emerge as a genuine problem-solving enterprise.

In the 1970s, the broadening of the field of applied linguistics continued, accompanied by a more overt specification of its role as a discipline that addresses real-world language-based problems. While the focus on language teaching remains central to the discipline, it takes into its domain the growing subfields of language assessment, SLA, literacy, multilingualism, language-minority rights, language planning and policy, and teacher training (Kaplan 1980; Kaplan et al. 1981; Widdowson, 1979/1984). The notion that applied linguistics is driven first by real-world problems rather than theoretical explorations, has had four major consequences:

- The recognition of locally situated contexts for inquiry and exploration, and thus the importance of needs analyses and variable solutions in differing local contexts.
- The need to see language as functional and discourse based, thus the re-emergence of systemic and descriptive linguistics as resources for problem-solving, particularly in North American contexts.
- The recognition that no one discipline can provide all the tools and resources needed to address real-world problems.
- The need to recognize and apply a wide array of research tools and methodologies to address locally situated language problems.

These trends took hold and evolved in the 1980s as major points of departure from an earlier, no longer appropriate, "linguistics applied" perspective. The central issue remained the need to address language issues and problems as they occur in the real world. Of course, since language is central to all communication, and since many language issues in the real world are particularly complex and long-standing, the emerging field has not simply been reactive, but rather, has been, and still is, fluid and dynamic in its evolution. Thus, definitions of applied linguistics in the 1980s emphasized both the range of issues addressed and the types of disciplinary resources used in order to work on language problems (Grabe and Kaplan 1992; Kaplan 1980). In the 1980s, applied linguistics truly extended in a systematic way beyond language teaching and language learning issues to encompass language assessment, language policy and planning, language use in professional settings, translation, lexicography, multilingualism, language and technology, and corpus linguistics (which has continuously held a far greater attraction for applied linguistics than for theoretical linguists). These extensions are well documented in the first ten years of the journal *Applied Linguistics* and in the *Annual Review of Applied Linguistics (ARAL)*.

By the close of the 1980s, a common trend was to view applied linguistics as incorporating many subfields (as indicated earlier) and as drawing on many supporting disciplines in addition to linguistics (e.g., psychology, education, anthro-

pology, sociology, political science, policy studies and public administration, and English studies, including composition, rhetoric, and literary studies). Combined with these two foundations (subfields and supporting disciplines) was the view of applied linguistics as problem driven and real-world based rather than theory driven and disconnected from real language use (Kaplan and Widdowson 1992; Strevens 1992). Applied linguistics evolved further in the 1990s, breaking away from the common framing mechanisms of the 1980s. These changes are taken up in later sections. A parallel co-evolution of linguistics itself also needs to be commented upon to understand why and how linguistics remains a core notion for applied linguistics.

WHERE IS LINGUISTICS? THE 1970S, 1980S, AND 1990S

Beginning in the 1960s, generative linguistics in the United States came to dominate formal linguistic theorizing for the next forty years. So pervasive was its influence that few other competing theories of language knowledge or language analysis were able to resist its dominance. Many applied linguists, particularly in the United States, were led to believe that generative linguistics was the only real foundation for understanding language form, expression, and acquisition. Chomskian linguistics—first transformational, then Government and Binding, then Minimalism—was seen as the leading direction for understanding the fundamental nature of language knowledge (or, perhaps, syntactic knowledge). Despite schisms and alternatives within this framework, the basic tenets have remained thoroughly generative (rule-based systems that, in principle, derive all of the grammatical sentences of a language). While there are obvious problems with generative linguistics—(1) the suspect status of data and evidence, (2) the assumption of competence apart from performance, (3) the notion of the idealized speaker, (4) the default genetic (non)explanation for language acquisition, and (5) the minimal interface with real-world uses (and abuses) of language—generative linguistics remains a powerful influence over linguists and nonlinguists alike. It has also had an undeniable impact on applied linguists of all persuasions, as Widdowson (2000a) points out, some aspects of which are clearly positive. However, as most trained applied linguists are well aware, a number of competing orientations and approaches have survived the onslaught and now are gaining ground among applied linguists, for the very practical reasons that they are more useful for solving language-based problems.

Among these competing frameworks for linguistic analysis, growing recognition is being given to systemic linguistics, descriptive and corpus linguistics, and functional linguistics. All three have demonstrated that they can be effective approaches for the analysis of language data collected in a range of language-use contexts. They provide socially relevant and accessible reference points for interpretation of language data that can be connected to language-based issues in other disciplines. They also relocate the basic unit of analysis from the clause unit to the discourse or textual unit, reflecting again a closer link to language use in the real world.

Anthropological linguistics and sociolinguistics have similarly adopted more functional and descriptive approaches to language and analyze discourse-level data that reflect the settings in which the data were collected. To a lesser extent, pragmatics and psycholinguistics have moved toward more descriptive data and away from theory-internal research assumptions, this being particularly true for the subfield of cross-cultural pragmatics (which may be more appropriately interpreted as a subfield within applied linguistics, rather than as formal linguistics). This shift in linguistic research subfields indicates a growing recognition that relevant language data and use occurs in real-world contexts and must be analyzed in ways that recognize these situations.

For applied linguistics research, the shift to discourse analysis, descriptive data analysis, and interpretation of language data in their social/cultural settings all indicate a shift in valuing observable language data over theoretical assumptions about what should count as data (Beaugrande 1997; Van Lier 1997). One of the most useful perspectives to have arisen out of this evolution of a more relevant linguistics has been the development of register analysis and genre analysis as they apply to a wide range of language use situations (Johns 2001). Both of these approaches, along with more refined techniques for discourse analysis, are now hallmarks of much applied linguistics research. In fact, many applied linguists have come to see the real-world, problem-based, socially responsive research carried out in applied linguistics as the genuine role for linguistics, with formal linguistics taking a supporting role. As Van Lier (1997) notes:

> I think that it is the applied linguist, who works with language in the real world, who is most likely to have a realistic picture of what language is, and not the theoretical linguist who sifts through several layers of idealization. Furthermore, it may well be the applied linguist who will most advance humankind's understanding of language, provided that he or she is aware that no one has a monopoly on the definitions and conduct of science, theory, language research, and truth. (1997: 103)

Some second language educators have gone even further in suggesting that language teachers actually do not need any real training in linguistics and language awareness (see Crandall 2000).

TRENDS AND PERSPECTIVES IN THE 1990S

In this section, I only note various developments that emerged in the 1990s and that will continue to define applied linguistics through this decade. The present volume provides the details to much of the brief sign-posting that this section provides. For much the same reason, I refrain from a long catalog of appropriate references on the assumption that these ideas will be well-referenced elsewhere.

Under the umbrella of applied linguistics, research in language teaching, language learning, and teacher education is now placing considerable emphasis on notions of language awareness, attention and learning, "focus on forms" for language learning, learning from dialogic interactions, patterns of teacher-student interaction, task-based learning, content-based learning, and teacher as researcher through action research. Research in language learning has shifted in recent years toward a focus on information processing, the emergence of language ability from extended meaningful exposures and relevant practice, and awareness of how language is used and the functions that it serves (see Doughty and Williams 1998b; N. Ellis 1999; Gass 1997; MacWhinney 1999; McCarthy and Carter, 1994; Robinson 2001; Schmidt 1995; Van Lier 1995, 1996; Van Lier and Corson, 1997). Instructional research and curricular issues have centered on task-based learning, content-based learning, dialogic inquiry, and a return to learning centered on specific language skills (Grabe et al. 1998; Skehan 1998b; Snow and Brinton 1997; Swain 2000; Wells 1999).

Language teacher development has also moved in new directions. Widdowson (1998a) has argued forcefully that certain communicative orientations, with a pervasive emphasis on natural language input and authenticity, may be misinterpreting the real purpose of the language classroom context and ignoring effective frameworks for language teaching. He has also persuasively argued that applied linguists must support teachers through their mediation with all aspects of Hymes's notion of communicative competence, balancing language understanding so that it combines grammaticality, appropriateness, feasibility, and examples from the attested (Widdowson, 2000a). A further emphasis for language teacher education has been the move to engaging teachers in the practice of action research. The trend to train teachers as reflective practitioners, inquiring into the effectiveness of teaching and learning in local classroom settings, will increase in the new decade.

A second major emphasis that has taken hold in discussions among applied linguists themselves is the role for critical studies; this term covers critical awareness, critical discourse analysis, critical pedagogy, student rights, critical assessment practices, and ethics in language assessment (and language teaching) (Davies

1999b; Fairclough 1995; McNamara 1998; Pennycook 1997b; Rampton 1997b; Van Lier 1995, 1997). At the same time, there are a number of criticisms of this general approach and its impact on more mainstream applied linguistics that highlight weaknesses in much of the critical studies theorizing (Widdowson 1998b, 1998c). At present, critical studies is also an emphasis that has not demonstrated strong applications in support of those who are experiencing "language problems" of various types. The coming decade will continue this debate.

A third emphasis is on language uses in academic, disciplinary, and professional settings. This research examines the ways in which language is used by participants and in texts in various academic, professional, and occupational settings. It also emphasizes how language can act as a gatekeeping mechanism or create unfair obstacles to those who are not aware of appropriate discourse rules and expectations. In academic settings, the key issue is understanding how genres and register expectations form the basis for successfully negotiating academic work (Hyland 1999; Johns 1997, 2001; Swales 2000). Analyses of language uses in various professional settings are described in Atkinson (1999a), Gibbons (1999), Hyden and Mishler (1999), and Swales (2000). More specific to English for Special Purposes (ESP), Swales (2000) and Dudley-Evans and St John (1998) provide strong overviews.

A fourth emphasis centers on descriptive (usually discourse) analyses of language in real settings and the possible applications of analyses in corpus linguistics, register variation, and genre variation. A breakthrough application of corpus linguistics is the recent *Longman Grammar of Spoken and Written English* (Biber et al. 1999): It is based entirely on attested occurrences of language use in a very large English corpus. The key, though, is not the corpus data themselves but the innovative analyses and displays that define the uniqueness of the grammar. Other important applications of corpus linguistics include the teacher-friendly introduction to discourse analysis by McCarthy and Carter (1994) and their more recent description and resource materials for the study of spoken English (Carter and McCarthy 1997; McCarthy 1998).

A fifth emphasis in applied linguistics research addresses multilingualism and bilingual interactions in school, community, and work and professional settings, or in policy issues at regional and national levels. Since the majority of people in the world are bilingual to some extent, and this bilingualism is associated with the need to negotiate life situations with other cultures and language groups, this area of research is fundamental to applied linguistics concerns. Multilingualism covers issues in bilingual education, migrations of groups of people to new language settings, equity and fairness in social services, and language policies related to multiple language use (or the restriction thereof). Key issues are addressed in Baker and Jones (1998), Grabe et al. (1997), and Rampton (1995b).

A sixth emphasis focuses on the changing discussion in language testing and assessment. In the past ten years, the field of language assessment has taken on a

number of important issues and topics that have ramifications for applied linguistics more generally. Validity is now powerfully reinterpreted and, in its new interpretation, has strong implications for all areas of applied linguistics research and data collection (Bachman and Palmer 1996; Chapelle 1999a). Similarly, emphases on technology applications, ethics in assessment, innovative research methodologies, the roles of standardized testing and alternative assessment, standards for professionalism, and critical language testing are all reshaping language assessment and, by extension, applied linguistics (Clapham 2000; Clapham and Corson 1997; McNamara 1998).

A seventh and final emphasis addresses the role of applied linguistics as a mediating discipline and applied linguists as mediators. Over the past decade, discussions about the role of applied linguists, as a bridge between research and practice, have been raised by Widdowson and a number of other scholars (Beaugrande 1997; Widdowson 2000b). At issue is not only the work of applied linguists but also the status of applied linguistics as an academic enterprise (Rampton 1997b; Tucker 2000; Van Lier 1997; Widdowson 1998c; Wilkins 1999). In some of these debates, there are still discussions of the applied linguist as an "MA generalist" or "language teacher." It should be clear from this review that applied linguists in the modern world require training and expertise far beyond such outmoded designations. (And, for this reason, master's degree programs, in and of themselves, are not the appropriate locus of training for applied linguists [Grabe and Kaplan 1992].)

THE PROBLEM-BASED NATURE OF APPLIED LINGUISTICS: THE PROBLEMS, NOT THE DISCIPLINES

In the many discussions of trends, and disciplines, and subfields, and theorizing, the idea is sometimes lost that the focus of applied linguistics is on trying to resolve language-based problems that people encounter in the real world, whether they be learners, teachers, supervisors, academics, lawyers, service providers, those who need social services, test takers, policy developers, dictionary makers, translators, or a whole range of business clients. A list of major language-based problems that applied linguistics typically addresses across a wide range of settings follows. The list is necessarily partial, but it should indicate *what* it is that applied linguists try to do, if not *how* they go about their work. Applied linguists address subsets of the following problems:

- Language learning problems (emergence, awareness, rules, use, context, automaticity, attitudes, expertise)
- Language teaching problems (resources, training, practice, interaction, understanding, use, contexts, inequalities, motivations, outcomes)
- Literacy problems (linguistic and learning issues)
- Language contact problems (language and culture)
- Language inequality problems (ethnicity, class, region, gender, and age)
- Language policy and planning problems (status planning and corpus planning; ecology of language)
- Language assessment problems (validity, reliability, usability, responsibility)
- Language use problems (dialects, registers, discourse communities, gatekeeping situations, limited access to services)
- Language and technology problems (learning, assessment, access, and use)
- Translation and interpretation problems (on-line, off-line, technology assisted)
- Language pathology problems (aphasias, dyslexias, physical disabilities)

These categories could be expanded further, and ideas in each category could be elaborated into full articles in and of themselves. The key point, however, is to recognize that it is the language-based problems in the world that drive applied linguistics. These problems also lead applied linguists to use knowledge from other fields, apart from linguistics, and thereby impose the interdisciplinarity that is a defining aspect of the discipline.

DEFINING APPLIED LINGUISTICS

In this chapter, I have defined applied linguistics as a practice-driven discipline that addresses language-based problems in real-world contexts. However, this general definition does not come to terms with many of the claims that applied linguistics is not a discipline. Critics note that applied linguistics is too broad and too fragmented, that it demands expert knowledge in too many fields, and that it does not have a set of unifying research paradigms. However, it is possible to interpret applied linguistics as a discipline much in the way that many other disciplines are defined. It has a core and a periphery, and the periphery blurs into other disciplines that may or may not want to be allied. This picture may not be very different from those of several other relatively new disciplines in academic

institutions. The following points reflect commonalities that most applied linguists would agree on:

1. Applied linguistics has many of the markings of an academic discipline: professional journals, professional associations, international recognition for the field, funding resources for research projects, a large number of individuals who see themselves as applied linguists, trained professionals who are hired in academic institutions as applied linguists, students who want to become applied linguists, and a recognized means for training these students to become applied linguists.
2. Applied linguistics recognizes that linguistics must be included as a core knowledge base in the work of applied linguistics, although the purpose of most applied linguists' work is not simply to "apply" linguistics to achieve a solution.
3. Applied linguistics is grounded in real-world, language-driven problems and issues (primarily by linkages to practical issues involving language use, language evaluation, language contact and multilingualism, language policies, and language learning and teaching). There is also, however, the recognition that these practically driven problems have extraordinary range, and this range tends to dilute any sense of common purpose or common professional identification among practitioners.
4. Applied linguistics typically incorporates other disciplinary knowledge beyond linguistics in its efforts to address language-based problems. Applied linguists commonly draw upon and are often well trained in psychology, education, anthropology, political science, sociology, measurement, computer programming, literature, and/or economics.
5. Applied linguistics is, of necessity, an interdisciplinary field, since few practical language issues can be addressed through the knowledge resources of any single discipline, including linguistics.
6. Applied linguistics commonly includes a core set of issues and practices that is readily identified as work carried out by many applied linguists (e.g., language teaching, language teacher preparation, and language curriculum development).
7. Applied linguistics generally incorporates or includes several further identifiable sub-fields of study: second language acquisition, forensic linguistics, language testing, corpus linguistics, lexicography and dictionary making, language translation, and second language writing research. Some members of these fields do not see themselves as applied linguistics, though their work clearly addresses practical language issues.
8. Applied linguistics often defines itself broadly in order to include additional fields of language-related studies (e.g., language pathology, natural language processing, first language literacy research, and first language

composition studies). The large majority of members of these fields do not see themselves as applied linguistics, but the broad definition gives license for applied linguists to work with and borrow from these disciplines for their own goals.

These eight points indicate the emerging disciplinary nature of applied linguistics. There are certainly difficulties for the field and problems with defining the core versus the periphery. There are also problems in deciding how one becomes an applied linguist and what training (and what duration of training) might be most appropriate. But these problems are no more intractable than those faced by many disciplines, even relatively established ones (e.g., education, psychology).

CONCLUSION

The coming decade of research and inquiry in applied linguistics will continue the lines of investigation noted in the second and third sections of this chapter. Applied linguists will need to know more about corpus linguistics, computer applications for research purposes, and new ways to examine language data. Testing and assessment issues will not be limited to testing applications but will have a much greater influence on other areas of applied linguistics research (Clapham 2000): Issues such as validity, fairness in testing, and ethics (Chapelle 1999a, McNamara 1998) will extend to other areas of applied linguistics (e.g., Bachman and Cohen 1998). These issues will also lead to continued discussions on the most appropriate research methods in different settings (Hornberger and Corson 1997). Applied linguistics will also direct more attention to issues of motivation, attitude, and affect as they potentially influence many language-based problems. Similarly, learning theories will become a more central concern in language learning and teaching. There has been relatively little attention explicitly given to learning theories as they are debated in educational and cognitive psychology.

All of these issues also ensure that applied linguistics will remain interdisciplinary. The resolution of language-based problems in the real world is complex and difficult. It is only appropriate that applied linguists seek partnerships and collaborative research if these problems are to be addressed in effective ways.

CHAPTER 2

RESEARCH APPROACHES IN APPLIED LINGUISTICS

PATRICIA A. DUFF

IN a field as vast as applied linguistics (AL), representing the range of topics featured in this volume, an overview of research approaches must be highly selective, a mere sampling and culling of major trends and developments in research perspectives and methods in a number of areas. In this chapter, I discuss recent quantitative and qualitative approaches to AL research and consider some future directions for the field.

Interestingly, no existing textbook provides a comprehensive treatment of contemporary quantitative and qualitative research approaches in AL, although many previous publications have dealt with aspects of AL research methodology, such as quantitative research design and statistics (e.g., Brown 1988; Hatch and Lazaraton 1991); research methods in language and education (Hornberger and Corson 1997); and approaches to research in second language (L2) studies specifically (e.g., Johnson 1992; Kasper and Grotjahn 1991; Nunan 1992; Seliger and Shohamy 1989). Furthermore, no methods textbook in AL is devoted to qualitative research methods, although some volumes (e.g., Bailey and Nunan 1996; Chaudron 1988; Johnson 1992; Larsen-Freeman and Long 1991; Nunan 1992; Seliger and Shohamy 1989; Van Lier 1988) and articles (e.g., Cumming 1994; Davis 1995; Edge and Richards 1998; Lazaraton 1995, 2000) discuss qualitative methods such as case study and ethnography and look at related methodological issues. Many other publications have highlighted specific analytical approaches or methods for conducting research, typically within a particular realm of AL, such as L2 classroom research; these include ethnomethodology and conversation analysis (Markee

2000); case study research (Duff forthcoming); corpus linguistics (Biber, Conrad, and Reppen 1998); ethnography (Van Lier 1988; Watson-Gegeo 1988); L1, L2, and interlanguage analysis (Gass and Selinker 1994; Kasper and Grotjahn 1991; Larsen-Freeman and Long 1991; Pica 1997a), stimulated recall (Gass and Mackey 2000); discourse analysis (Schiffrin 1994); critical discourse analysis (Fairclough 1989; Pennycook 1999b); survey methods (Baker 1997); verbal reports (Cohen 1991; Kasper 1998); and elicited imitation and grammaticality judgment tasks in SLA and the use of VARBRUL in sociolinguistics (Tarone, Gass, and Cohen 1994). Some of these methods can be used in either quantitative or qualitative research, depending on the nature of the research question.

RESEARCH APPROACHES: CONTRASTING, COMBINING, AND EXPANDING PARADIGMS

Most research methodology textbooks in education and the social sciences (e.g., Creswell 1994; Gall, Borg, and Gall 1996; Neuman 1994; Palys 1997), and therefore in some of the AL overview texts referred to earlier, distinguish between quantitative (nomothetic) and qualitative (hermeneutic) research as two distinct approaches to scientific enquiry. They also emphasize that the approach or method is crucially linked to the kind of research question or problem under investigation, the purpose of the study (e.g., exploratory, interpretive, descriptive, explanatory, confirmatory, predictive), and the type of data and population one is working with. Quantitative research is often associated with experiments and qualitative research with ethnography or case study. This is, of course, an oversimplification, yet one that persists. Each paradigm actually represents a collection of approaches to research that share some common principles but reflect major differences as well. Increasingly, quantitative and qualitative approaches are seen as complementary rather than fundamentally incompatible, and more mixed-paradigm research is recommended (Miles and Huberman 1994), although not as much combination of the two occurs in AL as one might hope (Lazaraton 1995). Thus, discussing approaches in terms of the quantitative-qualitative dichotomy, as current research methods textbooks do, can be both useful and problematic.

Any research paradigm or approach reflects a number of components, including:

- A philosophical basis or belief system regarding epistemology, or the nature of truth and of knowing (e.g., that research is ideally objective, unbiased, and value free vs. more subjective);

- An ideology concerning ontology, or the nature of reality (e.g., that an objective reality exists, or that reality is constructed socially and that multiple perspectives on reality exist);
- A corresponding methodology (e.g., one that is experimental/manipulative and hypothesis testing, or not) with various designs, methods, techniques, and devices for eliciting and analyzing phenomena (Cohen and Manion 1994; Denzin and Lincoln 1994).

Therefore, there are many levels at which research can be analyzed and categorized. Comparison and categorization in AL tends to be based primarily on methods or techniques, with less reflection on epistemological and ontological issues.[1] Quantitative approaches tend to be associated with a positivist or postpositivist orientation, a realist ontology, an objectivist epistemology, and an experimental, manipulative methodology. Qualitative approaches, on the other hand, are more often associated with an interpretive, humanistic orientation, an ontology of multiple realities, a nonobjectivist epistemology, and a naturalistic, nonmanipulative methodology (Guba and Lincoln 1994). However, what is ostensibly quantitative research may involve qualitative analysis (e.g., discourse analysis) and vice versa. Case study, for example, normally considered qualitative research, may actually reflect a more positivist approach than an interpretive one (Yin 1994), or it may be part of a quantitative one-shot (experimental) case study or a single- or multiple-case time series design (e.g., Mellow, Reeder, and Forster 1996). Similarly, statistical techniques can be used in both quantitative and qualitative research, but inferential statistics are mostly associated with quantitative research (Gall, Borg, and Gall 1996).

Quantitative research includes a variety of approaches, designs, and tools, such as correlations, surveys, and multifactorial studies, in addition to experimental or quasi-experimental studies. Despite its underrepresentation in AL, qualitative research encompasses a broad, expanding assortment of approaches, including narrative research, life history, autobiographical or biographical accounts, content analysis, historical and archival studies, conversation analysis, microethnography, and discourse analysis, drawing on such traditions as ethnomethodology, symbolic interactionism, structuralism, poststructuralism, phenomenology, hermeneutics, feminism(s), social/educational anthropology, and cultural studies, as well as case study and ethnography (Bogdan and Biklen 1992; Denzin and Lincoln 1994; LeCompte, Millroy, and Preissle 1992).

Quantitative research has traditionally enjoyed a more elevated status within education and the social sciences because it is considered by some researchers to be more robust, rigorous, scientific, theoretical, and generalizable, and, therefore, it is argued, it has more to contribute to knowledge and theory than qualitative research. Of course, none of these claimed attributes should be taken for granted in quantitative research—they must, rather, be demonstrated by the researcher.

Neither should it be assumed that qualitative research is atheoretical, unscientific, lacking in rigor or generalizability (transferability), or intellectually insignificant; again, the onus is on the researcher to demonstrate the credibility and importance of the methods and findings.

Qualitative research of different types has gained a major foothold in AL in the past ten years, however. Yet quantitative approaches are still considered "mainstream" by some AL scholars, while other more interpretive or critical approaches are cast as "alternative(s)" (Pennycook 1994a). This perceived imbalance is, moreover, supported by a recent survey of research articles in AL (Lazaraton 2000) revealing a disproportionate number of quantitative studies in AL journals compared with qualitative ones.

Some research methodologists outside AL posit the existence of not just two research paradigms and perspectives, but three or more. These include:

- Positivist, interpretive, and critical (Jackson 1995)
- Positivist, postpositivist, critical (and related ideological positions), and constructivist (Guba and Lincoln 1994)
- Positivist/postpositivist, constructivist, feminist, ethnic, Marxist, and cultural studies (Denzin and Lincoln 1994)

In AL, Seliger and Shohamy (1989) contrast qualitative research (participant observation, ethnography), descriptive research (case or group studies, tests, surveys, questionnaires, self-reports, interviews, observation, correlation and multivariate analysis), and experimental research (different designs). Larsen-Freeman and Long (1991) compare cross-linguistic (more quantitative) and longitudinal (more qualitative) approaches, and they depict research methodologies along a continuum (from qualitative to quantitative) with the following methods: introspection, participant observation, nonparticipant observation, focused description, pre-experimental, quasi-experimental, and experimental. Cumming's (1994) survey of TESOL research approaches includes the categories descriptive (analysis of learner language, verbal reports, text analysis), interpretive (classroom interaction analysis, ethnography), and ideological (critical pedagogy, participatory action research).

Critical (or "ideological") research is sometimes accorded a category of its own, as in the previous example, apart from quantitative and qualitative paradigms. Perhaps this is so because certain approaches to research constitute explicitly ideological lenses or frames (e.g., critical or feminist) through which any data or situation can be analyzed; other studies also reflect an ideology, but one that is simply not explicated. Thus, critical perspectives can be applied to ethnography, and feminist perspectives can be applied to surveys or case studies. On the other hand, it might be claimed that these overtly ideological perspectives constitute different approaches, purposes, underlying assumptions, methods, subject matter, and reporting styles and that they are therefore not simply new lenses, frames, or values to be applied to otherwise orthodox academic pursuits with

reified categories and objectification. Finally, additional categories sometimes discussed separately in research methods textbooks (especially in L2 education) include action research, collaborative research, and teacher research; program evaluation; language policy research; and historical, archival, and (other) library research (Johnson 1992; Nunan 1992).

DEVELOPMENTS IN QUANTITATIVE RESEARCH

The 1980s and 1990s were a very productive time in the development, explanation, and application of quantitative research design and statistics and other analytical techniques in AL research using a variety of types of research: experimental, quasi-experimental, correlational, survey, and other carefully controlled, sometimes multivariate designs. As a result, greater attention has been paid to the reliability and validity of research constructs, instruments, scales, rating protocols, and analytical procedures; sampling procedures; measurement; variables; and parametric and nonparametric statistics (Brown 1988; Hatch and Lazaraton 1991; Lazaraton 2000). I consider some additional developments in this section.

Ellis (1999) discusses three quantitative approaches to cognitive and psycholinguistic research: Observational research (e.g., using language corpora), experimentation (e.g., in studies on form-focused instruction and SLA; Doughty and Williams 1998b), and simulations (e.g., connectionist models of SLA; Gasser 1990; Kempe and MacWhinney 1998). Although there is a greater understanding among applied linguists of the criteria of good quantitative research now, it is also evident that true experimental research is often difficult to conduct for logistical and ethical reasons, particularly in research with children or adults in educational contexts. In many institutions, for example, pretesting, random assignment to treatment types (e.g., instructional interventions or experimental stimuli), and control or normative/baseline groups may be difficult to arrange. Norgate (1997) provides an interesting example of this dilemma in research on the L1 development of blind children. Rather, quasi-experimental research examining cause-effect relationships among independent and dependent variables and research looking for other kinds of relationships among variables predominate. Experimental SLA laboratory studies are an exception; that research often involves artificial or semiartificial L2 structures, control groups, random assignment, and pre- and posttesting (e.g., Hulstijn and DeKeyser 1997). The downside of this carefully controlled research is that it lacks ecological validity because the language(s), contexts, and

activities do not represent those ordinarily encountered by language learners and users.

In another area of AL, language testing, Kunnan (1999) describes new quantitative methods, such as structured equation modeling, that permit sophisticated analyses of relationships among groups of learner (test taker) variables such as L2 proficiency, language aptitude and intelligence (e.g., Sasaki 1993). In L1/L2 survey research, Baker (1997) describes large-scale and small-scale initiatives in Europe, South America, and elsewhere, dealing with such issues as language vitality among minority language groups and social-psychological variables (e.g., attitudes and motivation) connected with successful L2 learning. He also illustrates how more readily available census data with specific items about language has facilitated certain kinds of analysis for language policy and planning purposes (see Clément, Dörnyei, and Noels 1994; Johnson 1992; and Schumann 1997 for other examples of survey research).

DEVELOPMENTS IN
QUALITATIVE RESEARCH

Despite the widespread use of some forms of qualitative research in AL historically, as in case studies (Hatch 1978) which have had considerable impact within SLA, discussions of qualitative approaches to research were almost nonexistent in general AL research methods textbooks before 1989 and still appear to be uncommon in many AL graduate programs. The current expansion of qualitative approaches in AL reflects trends across the health sciences, social sciences, humanities, and education in recent years (Denzin and Lincoln 1994; LeCompte, Millroy, and Preissle 1992; Miles and Huberman 1994) and a growing interest in ecological validity and in the social, cultural, situational, embodied, and performative nature of language, knowledge, and learning.

Ethnographies of language learning and teaching, literacy practices, and workplace encounters and methodological discussions about cultural aspects of knowledge and behavior have become more prominent and commonplace since Watson-Gegeo's (1988) influential article first appeared (e.g., Duff 1995; Harklau 1994; Ramanathan and Atkinson 1999; Roberts, Davies, and Jupp 1992). In addition, a burgeoning interest in poststructural, postcolonial, and critical L2 research (e.g., Pennycook 1994b, 1998, 1999) is evident in many areas of AL. Critical and poststructural perspectives have been applied to ethnographies (e.g., Cana-

garajah 1993b; Goldstein 1997), to studies of language and social identity (e.g., Norton 1997b; Peirce 1995), and to research on language and gender (e.g., Cameron 1992; Ehrlich 1997; Freeman 1997; Mills 1995), some of which is explicitly feminist, emancipatory, reflexive, and postmodern.

Thus, whereas qualitative AL research in the past may have leaned toward (post)positivism and structuralism, relying on researchers' structured elicitations, analyses, and interpretations of a relatively narrow band of observed linguistic (or other) behavior sometimes designed to test specific hypotheses, current strands of research lean toward more unapologetically subjective, dialectical accounts, incorporating different, sometimes contradictory perspectives of the same phenomenon and grappling more intentionally with issues of position, voice, and representation (Edge and Richards 1998). The personal accounts and narratives of the experiences of language teachers, learners, and others, often across a broader span of time, space, experience, and languages, have now become a major focus in some qualitative research. Evidence of this are first-person narratives, diary studies, autobiographies, and life histories of developing, teaching, or losing aspects of one's language, identity, and affective orientation (e.g., Bailey and Nunan 1996; Kouritzen 1999; Schumann 1997); studies now examine individuals using language in and across social contexts that were investigated to a lesser degree in the past (e.g., in professional or academic settings [Spack 1997], in the home/family, community, workplace, and other social institutions).

While interesting and compelling in many cases, the newer approaches are not necessarily supplanting existing ones but rather complementing them and providing alternatives to traditional approaches, topics, genres, analyses, and conclusions, and notions of authenticity and legitimacy (Edge and Richards 1998). In addition to these emerging narrative approaches to exploring linguistic experience, other important but less emic accounts of language and behavior have attracted renewed attention from scholars across disciplines, particularly in studies of the discursive structure and social-interactional accomplishment of narrative texts (e.g., Bamberg 1998).

There is a growing emphasis on social, cultural, political, and historical aspects of language and language research, in addition to narrative aspects (Hinkel 1999; McKay and Hornberger 1996; Tollefson 1995). Categorical labels and unacknowledged bias have therefore been the subject of analysis and critique (in connection with, e.g., race, class, culture, language, gender, heterosexism, native versus nonnative speakers, inner and outer circle in World Englishes). Drawing on different (psychological) traditions but also concerned with social aspects of language and literacy are neo-Vygotskyan, sociocultural, and constructivist accounts, which have been adopted by growing numbers of applied linguists over the past decade (Lantolf 1994, 2000), particularly in research in classrooms, therapeutic or counseling encounters, and community settings. Like other primarily qualitative approaches,

sociocultural research often involves conversation analysis, discourse analysis, narrative analysis, and microethnography and examines language and content in an integrated manner.

Reflecting another change in AL research approaches and objects of study, text and discourse analyses now investigate not only the structure of, say, scientific research articles but also the linguistic messages, symbols, and genres associated with ostensibly nonscientific discourse(s) and interactions, such as in popular culture, mass media, and everyday social encounters (e.g., dinnertime discussions). Some of this research is framed in terms of critical or poststructural theory, and the constructs of literacy and discourse, like that of identity, have been theorized and analyzed as plural, not singular entities, and as social, multifaceted and fluid (Gee 1996). Finally, the concern for understanding contextual features of linguistic phenomena that is the hallmark of much qualitative (or at least nonquantitative) AL research has also been applied to analyses of the historical, political, social, cultural, rhetorical, and intellectual contexts and consequences of AL theories, research, and practice/praxis (Crookes 1997; Rampton 1995a; Thomas 1998; and the paradigm debates in AL in note 1).

THE IMPACT OF TECHNOLOGICAL ADVANCES ON RESEARCH APPROACHES IN AL

Technological and computational advances have also played an important role in the ongoing transformation of AL research and thus merit some discussion. For example, the recent availability of high-quality, affordable tape recorders, digital video cameras, personal and handheld computers, scanners, and means of incorporating data of different types from multiple sources in computer files and in publications (e.g., with accompanying compact disks) has major practical and theoretical implications, particularly in applied psycholinguistics, corpus linguistics, discourse analysis, and testing (Ellis 1999; Grabe et al. 1996). These innovations have also enhanced research with minority populations in AL, such as the blind and deaf (Hornberger and Corson 1997). In addition, the use of data management and analysis software designed specifically for qualitative research is also increasing (e.g., Weitzman and Miles 1995). Similarly, the development and accessibility of L1 and L2 acquisition databases such as CHILDES (MacWhinney 1995a), corpora from oral and written texts (Biber, Conrad, and Reppen 1998;

Thomas and Short 1996), new databases resulting from the use of computers in language testing, and online language interactions in CALL or other electronic networks have also engendered new possibilities for AL research in such diverse fields as language acquisition, text analysis, syntax and semantics, assessment, sociolinguistics, and language policy. Future AL research will no doubt continue to be greatly influenced by ongoing technical developments in natural language processing, machine and other translation systems, artificial intelligence, brain imaging techniques, CALL, aural/visual recognition and transcription devices, and AL-tailored statistical packages and procedures. Also, as more research focuses on languages other than English—including signed and other languages with different orthographies—and seeks to accommodate a greater range of information about messages (e.g., phonetic, temporal, visual, contextual, material), new electronic tools and theoretical insights will result.

CONCLUSION

In this short chapter, I have provided an overview of both dominant and emerging approaches to AL research, particularly those typically described as quantitative or qualitative, and how these have been discussed and utilized in the field. Here I provide some concluding remarks about current and future trends and directions in AL research.

The research topics and approaches discussed, much like the field of AL, involve various philosophical and theoretical commitments, as well as methodological preferences and practices. Generally speaking, AL research has begun to show greater pluralism and rigor, an increased sensitivity to the contexts of research, the characteristics of research participants, the need to draw meaningful theoretical insights from findings and to consider carefully constraints on generalizability (or transferability) of results. There is now a growing recognition of and respect for fundamental issues of ethics, fairness, and validity in AL research and practice (e.g., Cameron et al. 1992; Davis 1995; Davies 1997b) and an awareness that some issues, populations, languages, and geographical areas receive considerable research attention (and funding), while others have remained invisible or on the margins. This point not only suggests imbalances in the global research enterprise but also has implications regarding the limitations of the theoretical conclusions drawn from work confined to particular areas, languages, and participants.

The development of criteria for exemplary quantitative research and reporting has resulted in many carefully conceived quantitative research studies and pro-

grams of research. Now parallel work needs to be done with other (e.g., qualitative) approaches to research, some of which are only just appearing in AL (Edge and Richards 1998). In addition, a greater collective awareness and understanding (and, ideally, genuine appreciation) of different research methods and areas of study would be helpful to the field at large. Along the same lines, collaboration among researchers looking at similar phenomena in different (socio)linguistic, cultural, and geographical contexts (e.g., Blum-Kulka, House, and Kasper 1989) would certainly benefit theory development and practical applications. Combining the expertise of applied linguists espousing different research paradigms in complementary types of analysis of the same phenomenon would also yield richer analyses of complex issues (Koshmann 1999). Furthermore, multiperspective research with researchers from different traditions and primary areas (e.g., anthropology, psychology, education, and linguistics) examining the same data from their own disciplinary frames of reference would be both interesting and timely. Although much AL research is chiefly concerned with abilities, behaviors, or sociolinguistic conditions and phenomena at one point in time (typically the present and/or immediate past or future), more research sustained over larger periods of time, space, and activities is also needed; for example, research that examines the long-term effects of certain interventions or establishes developmental patterns across oral and written structures and genres (Heath 2000). Replication studies, meta-analyses, crosslinguistic, cross-generational, and cross-medium (e.g., oral/written) studies have been used in limited ways in AL, with particular combinations of languages, media, and age groups. In addition, more multimethod AL research would provide a greater triangulation of findings. Research has started to take into greater account not only individual (e.g., cognitive, linguistic, affective) and group aspects of language behavior and knowledge but also sociocultural, historical, political, and ideological aspects. More emphasis is therefore being placed on the multiple, sometimes shifting identities, perspectives, and competencies of research participants and researchers and on the multiple contexts in which language is learned, produced, interpreted, translated, forgotten, and even eliminated.

Finally, all basic or pure research is meant to contribute to the knowledge base and theoretical growth of a field; thus, with more conceptually sound research, new discoveries, insights, and applications are certainly in store for the field of AL. In applied research that aims to yield a greater understanding of phenomena in the mind/world and also help improve some aspect of the human condition, increased social and political intervention and advocacy may also be warranted. These, then, are just some of the issues and challenges that applied linguists must address in the future from different perspectives and using a variety of approaches. Indeed, as perspectives, methods, genres, and media for conducting, reporting and disseminating research are transformed, new areas for AL research

and new challenges, too, will surface for the evaluation of innovative, nontraditional forms of research.

NOTE

1. Discussions and debates concerning philosophical and theoretical foundations of AL research (particularly SLA)—a phenomenon dubbed the "paradigm wars" (e.g., Edge and Richards 1998)—have tended to take place apart from discussions of particular methods (e.g., Beretta 1993; Beretta, Crookes, Gregg, and Long 1994; Block 1996; Gregg, Long, Jordan, and Beretta 1997; Van Lier 1994).

THE FOUR SKILLS: SPEAKING, LISTENING, READING, AND WRITING

CHAPTER 3

SPEAKING

MARTIN BYGATE

THE study of speaking—like the study of other uses of language—is properly an interdisciplinary enterprise. It involves understanding the psycholinguistic and interpersonal factors of speech production, the forms, meanings, and processes involved, and how these can be developed. This chapter views speaking as a multilevel, hierarchical skill, in which high-level plans, in the form of speaker intentions, are realized through the processes of formulation and articulation under a range of conditions. For the purposes of this chapter, spoken language is taken to be *colloquial* in the two senses of representing dialogue and of representing the features typically associated with the everyday use of language.

This chapter first outlines the need for an integrated account of oral language processing. It then presents such an account, considers the range of formal features which characterize spoken language, and reviews oral language pedagogy in the light of this account. The conclusion outlines issues for further exploration.

ASPECTS OF SPOKEN LANGUAGE

We start from the distinction between language as system and language in contexts of use. A speaker's language proficiency can be seen as a pool of systemic resources and the ability to use them in real contexts. Systemic knowledge can be described in