This AILA Review volume is the first in a series of three special issues devoted to characteristic features of applied linguistics. While the later volumes will look into applied linguistic theories and methods, the present one focusses on applications in applied linguistics and intends to present selected examples representing modes and subject matter domains of applications.

The selection of such examples would presuppose an understanding of applied linguistics that is shared in the academic community. But until today, there is no such consistent and undisputed understanding, neither about the aims and scope of applied linguistics nor about the theories and methods it is based on. In his *Introduction to Applied Linguistics* Davies (2007: 1) quotes Vivian Cook with the telling remark that “Applied Linguistics means many things to many people”. Therefore, before discussing applications in more detail, a brief characterization of applied linguistics and its relation to linguistics seems appropriate.

The lack of agreement in the understanding of applied linguistics can even be traced back to the emergence of this notion. There is a widespread consensus that “Applied Linguistics” arose as a designation of a field of academic activity in 1948 with the first issue of the journal *Language Learning*, which used this compound in its subtitle *A Quarterly Journal of Applied Linguistics*. This history of its origin may explain why even today, in the Anglophone literature in particular, applied linguistics still tends to be predominantly associated with foreign language learning and teaching, as can be seen, for example from Johnson and Johnson (1998), whose *Encyclopedic Dictionary of Applied Linguistics* is explicitly subtitled *A Handbook for Language Teaching*. However, this assumption of its origin is historically wrong. As pointed out by the Austrian terminologist Otto Back (Back 1970), the idea of applying linguistics can be traced back to the early 19th century in continental Europe, and the notion “Applied Linguistics” was used there in the early 20th already for domains such as the development of orthographies and terminologies, translation, language corpus planning, or for linguistics as an ancillary discipline for history, psychology etc., in addition to its use in language teaching. This is more commensurate with what is covered by this label today.

It is only fair to mention, though, that in line with the increasing activity in other fields than language teaching, in the 1990s the editors of *Language Learning* changed the subtitle of this journal to a more catholic *A Journal of Research in Language Studies* and widened its scope to include contributions based on many other disciplines than linguistics and addressing issues more fundamental to language learning such as cognition, multilingualism, literacy, culture and others. This was, no doubt, an accommodation to the zeitgeist, which is also mirrored in the development of the Scientific Commissions of AILA. But a scope as wide as this makes it difficult to come to an undisputed characterization of the nature of the applied linguistic enterprise. It is not surprising,
then, that there is much disagreement as to what it is that is being applied, i.e. what is the reference discipline, and as to how it is applied. For example, Corder (1973) regards the applied linguist as a mere user of existing linguistic theories, whereas Rampton (1997) sees applied linguistics as a field of interdisciplinary synthesis where theories in their own integrity develop in close interaction with language users and professionals — a view rejected e.g. by Widdowson (2005), who argues that a true interdisciplinary approach is ultimately impossible. Also, there are diverging opinions on whether applied linguistics is an independent academic discipline, as claimed for instance by Kaplan and Grabe (2000) or Bygate (2004), or not, as held e.g. by Davies and Elder (2004) or Stegu (2011).

Applied Science

Despite such conflicting views, it is a general consensus that applied linguistics is an applied science. Conceptually, the notion "Applied Science" designates the application of a discipline to help achieve purposes that lie outside its intrinsic scope. According to this widely held concept, application is a unilateral top-down process: what is applied refers to already existing insights gained and methods developed in the respective science. However, as pointed out in Knapp and Antos (2007/2011), this traditional concept of science and its application is increasingly challenged by a new one that can be labeled as "science under the pressure to succeed", i.e. as science whose theoretical structures, methodological approaches and criteria for social recognition are conditioned by the pressure of application. Such pressure often results from newly emerging problems for which no ready-made solutions are available, but which have to be solved urgently, as would be the case, for instance, of a new disease that may turn into a pandemic but cannot be cured by conventional medication.

When it comes to most of such new practical problems in real life, sciences cannot rely on available knowledge. Such problems do not come labelled according to the catalogue of established disciplines and do not fit seamlessly into the traditional domain of one particular science. Very often the scientific bases for a solution have to be developed from scratch, which may entail an interdisciplinary or transdisciplinary approach extending beyond existing theories and methods in a particular discipline. This kind of application of sciences can be regarded as a bottom-up process: departing from real life problems, scientists develop new methods and even new theories leading to new insights on the issue at hand, with the ultimate goal of providing solutions for this problem.

Ideally, this bottom-up process can be described as the succession of the following working steps:

1. Identification of a problematical issue in real-life practice.
2. Reformulation of the issue as a problem in the frame of one or several scientific paradigms.
3. Analysis of the problem, if necessary with the help of further basic research leading to problem-related modified or new methods and theories.
5. Assessment of its ethical and ecological consequences and its cost/benefit ratio.
6. Conveyance of the proposal to real-life practice with instructions for implementing it.

The first and the last step of this process make it clear that applied science endeavours cannot be pursued independent of its social context. It is essential that both the identification of the problem and the ultimate proposal for its solution are relevant to the people who have to cope with it. Ideally, applied research is a joint enterprise between academics and the relevant or laypeople and stakeholders and therefore should also take the conceptual and practical standards of those groups into account -who are the ultimate targets of the applied science endeavour- in addition to the theoretical and methodological standards of the disciplines involved. To ensure this mutuality of perspectives,
the applied scientist should at least temporarily become part of the respective community of practice.

The third step is essential for making applied sciences genuine sciences. To work on a problem requires assumptions about its nature and origin, and about how it can be made accessible for analysis. These assumptions in turn require decisions about what descriptive categories and methods are available in the respective reference disciplines and which new ones have to be developed, as well as decisions about how the problem can be solved and about the criteria against which a solution can be evaluated. Even where applied sciences can draw on theories and methods from the reference disciplines, these assumptions and criteria for evaluation indicate a purpose-oriented theoretical and methodological autonomy of applied sciences: Applied sciences cannot exist without their own theories for the subject-area under consideration. Insofar as such theories have to relate to the perspective of practitioners, they may often include elements of lay theories. Often, such application-oriented theories are simply ad-hoc theories, geared towards restricted empirical phenomena. But it is also possible that the empirical phenomena require new basic research, leading to independent middle range theories.

**Applied Linguistics**

How can these bottom-up / top-down views of applied sciences be related to the question of what it is that is being applied in applied linguistics and how it is applied?

From a terminological perspective, the issue seems obvious: The noun in the term “Applied Science” designates the respective reference discipline. In the case of “Applied Linguistics” this is, of course, linguistics. Terminologically, the view held by some that applied linguistics is an autonomous discipline leads to a paradox: As Stegu (2011) points out, if applied linguistics should be the reference discipline, the correct term would have to be “Applied Applied Linguistics”. But if solely linguistics is the reference discipline — what is the linguistics that is being applied, and how can linguistics be delimited and distinguished from applied linguistics?

At the time when applied linguistics became an increasingly vibrant field of academic activity, linguistics was dominated by structuralism and generativism. As a consequence of their theoretical and methodological constraints, these schools of thinking reduced “language” in a global sense to an abstract and idealized formal system. With this focus they disregarded explicitly almost all aspects of language and communication by individuals and societies encountered in everyday life. As a consequence, it became necessary for those interested in socially accountable research into language and communication to transcend the limitations of what was referred to as “core linguistics” and to draw on a wider range of disciplines, thus giving rise to numerous interdisciplinary areas that have come to be known as hyphenated variants of linguistics, such as sociolinguistics, ethnolinguistics, psycholinguistics, as well as to conversation analysis, pragmatics etc. In many cases, the emergence of these new fields was triggered by the intention to solve problems, such as verbal deprivation of children from lower social classes, disorders in language development, or protecting endangered language and cultures.

The fact that these variants of linguistics can be related to particular problems with language and communication may suggest that they fall completely into the scope of applied linguistics. This could even be supported by the frequently quoted definition of applied linguistics as “the theoretical and empirical investigation of real world problems in which language is a central issue” (Brumfit 1997: 93). But to regard any preoccupation with language beyond core linguistics as applied linguistics is not really adequate. As will be shown below, much of the research done in these fields does not focus explicitly on particular real world problems but is triggered by more theoretical or descriptive interests rather than by practical problems. Also, research in what formerly was regarded
as hyphenated variants of linguistics is frequently geared towards developing autonomous theories and methods for the respective field under study. A typical example is psycholinguistics, where concepts and methods from linguistics are losing importance in favor of theories of neuro-cognition and methods like brain imaging and where more practical issues of language development, language use and language disorders in adults and children are being dealt with e.g. in a journal explicitly entitled Applied Psycholinguistics. Many of these hyphenated variants have become mainstream in linguistics in the meantime, as can be seen from the fact that in many universities they are included in degree programs of linguistics alongside core linguistics.

Thus, the boundaries between linguistics and applied linguistics are getting more and more blurred. This is one reason why it is difficult to delimit the scope of both linguistics and applied linguistics. Another is the — at least initial — problem orientation of applied linguistics. Real world problems with language and communication are unlimited in principle, and so is the potential scope of applied linguistics. But the more new fields of activity (initially emerging as a reaction to some real world problem with language and communication) become established as academic enterprises and gain recognition as mainstream, the larger the scope of linguistics will be. A recent example could be queer linguistics, which according to Motschenbacher (2011) is evolving as a “new discipline” from the sociolinguistic subfield of language and sexuality by taking up Queer Theory from poststructuralist social theory and by developing typical methodological approaches.

Against this background, trying to identify a particular discipline or a set of disciplines in response to the question of what it is that is applied in applied linguistics is futile. If applied science means the application of findings of a discipline to help achieve purposes that lie outside its intrinsic scope, then applied linguistics can, rather pragmatically, be defined as the application of findings from any language and communication-related science for purposes outside this science. For motivating the choice of contributions to this volume, the modes of application and the domains in which they occur are more important than an enumeration of what might fall into the scope of applied linguistics.

As to top-down modes of application in applied linguistics, two variants can be distinguished depending on the intended purpose: If linguistics — understood in what follows as the sum of all language and communication-related sciences which aim at gaining insights into aspects of language and communication for their own sake — is applied to help achieve purposes that lie in real world practice, we can — in the terminology of Back (1970) — speak of practically applied linguistics. Examples of top-down applications in this sense are, among others, the use of findings from lexicology for the compilation of dictionaries, of findings from acoustic phonetics for automatic voice recognition in mobile phones and similar appliances, or of findings from contrastive analysis for foreign language teaching. These are typical cases for illustrating Corder’s view of applied linguistics mentioned above: transferring findings from linguistics to practice.

Note, however, that it is not only linguistics that is applied. As is typical of applied sciences, also additional theoretical assumptions apply here. For example, in the case of contrastive analysis, this was the hypothesis that structural differences between languages cause learning difficulties and hence errors. This hypothesis originated from both learning theory and lay theories of teachers and is a typical case of an ad-hoc theory in applied linguistics — an application-oriented theory which has been refuted meanwhile.

By contrast, following Back, the mode of theoretically applied linguistics is given when linguistics is applied to help develop insights in a different science for their own sake. In such cases, linguistics could also be regarded as an ancillary discipline. Examples could be here, amongst others, the use of concepts from text linguistics for developing theories of literary studies, or the use of language
corpora of normally developing children for devising measures in the treatment of retarded language development and for explaining developmental disorders.

In a similar way, different bottom-up-modes can be distinguished. One is the mode of applied linguistics for problem solving. In this mode applied linguistics takes up real world problems, where necessary in cooperation with several disciplines, in the way outlined above, and develops strategies for solutions. And in dealing with these problems it is autonomous or equal with other cooperating disciplines and stakeholders. This mode may include application oriented basic research. In any case, it draws on and develops autonomous application-oriented theories.

Many typical examples of this mode can be found in work on communication in institutions and professions, and in work resulting from the increasing migration to and multilingualism in Western societies. Here, in institutions like social services, at court, at hospitals and others, often problems of communication with far reaching social consequences arise in interactions between migrants who are not fluent in the local language and native speaker agents. To solve such problems by training both migrant clients or patients and representatives of the respective institutions, their differences in linguistic competence as well as their mismatch in expertise and in the use of discourse conventions have to be analyzed. This cannot be restricted to identifying underlying patterns in the data. Rather, it is necessary to explain such patterns by the institutional constraints imposed on the interaction, which requires cooperation with the respective professionals (cf. e.g. the contributions in Bühlig and Meyer 2013).

The second bottom-up-mode can be labeled, a bit clumsily, applied linguistics as a problem oriented ancillary discipline. In this mode applied linguistics is involved in the solution of a problem which primarily lies in the remit of another discipline and where in the definition of the problem and in the contribution to solving it the applied linguist is not viewed as being on an equal footing with those that build on his or her findings, but is dominated by the professional standards and practical interests of the discipline, the institution or the professional initiating the cooperation with the applied linguist. Typical examples are cases where applied linguists are involved in legal decisions, e.g. on the right of residence of asylum seekers who claim refugee status but have no papers to confirm their identity, so that their country of origin has to be determined on the basis of samples from their spoken language (cf. Eades 2005), or when applied linguists act as expert witnesses at court (cf. Coulthard 2011).

Finally, a third bottom-up-mode has to be mentioned. It can be labeled, again inelegantly, as real-life triggered linguistics. That this label does not use applied linguistics is intended to indicate that it is questionable to what extent one can speak of applications here at all. As mentioned above, solving real life problems with language and communication often presupposes basic research for developing new methods and theoretical explanations as a precondition for an adequate treatment of the initial problem. But as contributing to theoretical and methodological progress is a prestigious core objective of academic research, it often happens that researchers gradually lose sight of the original practical problem and engage in hermetic discussions remote of any application. A case in point is second language acquisition (SLA) research. Initiated originally by the interest in finding explanations for learners’ errors and, based on that, adequate ways of dealing with them in foreign language teaching (Corder 1967), early SLA research focused on the processes and strategies of learners and the sequences they follow when acquiring an additional language. But the focus of enquiry soon shifted from description of what learners do to explanation, with an increase of theory-driven research aiming at testing tenets of particular linguistic theories, in particular generative ones. As can be seen from Ellis (2008) or Ortega (2013), SLA has become a vast and highly diverse field of research with part of it no doubt having practical implications for language teaching. But it cannot be denied that much of what is done under the
label of SLA are theoretical discussions remaining immanent to linguistics without considering any practical application.

There is another variant of the mode of real-life triggered linguistics: When new varieties or new forms of communication emerge, e.g. in a particular age cohort or in newly arising social groups, stimulated by migration and language contact or as a result of new media like e-mail, chats, SMS, twitter etc., these developments are usually followed by research describing the linguistic features of the new phenomena as such. This is usually not a reaction to a special real-life problem with the intention to solve it. Although there can be no doubt that such phenomena are worthwhile objects of study, it is obvious that very often the focus of enquiry is limited to the description of features of language structure and use of varieties or domains of communication different from those dealt with so far in main stream linguistics. As such new developments do not coincide with the established thematic scope of what has become main stream linguistics, the same reflex applies that led to the former divide between core and hyphenated linguistics: any new subdomain of study is regarded as applied linguistics. But this is a misconception. Though this research is valuable and may lead to new theoretical concepts and new methodological approaches, it is basically non-applied descriptive linguistics which is triggered by changes in real life. Interesting recent examples are e.g. Bücker (2013) or Meiler (2013).

Domains and modes
The modes just outlined can appear in dealing with a wide variety of subjects. Given that, as pointed out above, the scope of applied linguistics is unlimited in principle, the choice of exemplary applications for this volume cannot be taken from an open list of topics. Rather, they should be motivated by an attempt to represent, in addition to the modes, more general domains of application. The following major domains can be distinguished, keeping in mind that the topics listed in each category are examples only:

Language and Communication in Society
All applications that focus on language and communication-related issues in society at large, on the macro level, and in social groups, fall into this domain including, but not restricted to

- language policy and planning;
- language and human rights;
- language and communication in social groups (according e.g. to ethnicity, age, gender, class ...);
- language contact and societal multilingualism, including multilingual interactions;
- language maintenance;
- language and identity;
- documentation of endangered languages and cultures.

Language and Communication in Institutions, Organizations and Professions
Applications under this category can be grouped under issues related to the respective formal and functional features of languages, varieties or registers and their use as well as to the discourse conventions employed in institutional, organizational and professional communication, the latter often with a particular emphasis on expert-layperson interaction, as e.g. in the subdomains of

- language and communication in the legal sphere;
- language and communication in business;
- language and communication in medicine;
Applications in applied linguistics

- language and communication in the media;
- language and communication in educational institutions.

Language and Communication Technology
This domain includes applications that have their basis in the technical sciences and that aim at enabling or facilitating communication and at producing, processing and storing language data by electronic means, among them

- automated document processing, such as abstracting, information retrieval and text mining;
- automatic speech recognition and synthesis (as e.g. in voice mail);
- machine translation;
- barrier-free communication by enhancing perceptibility of language, e.g. by cochlear implants;
- communication in the new media;
- tutoring systems and computer-assisted language learning (CALL).

Interpersonal and Intercultural Communication
Under this label fall applications aiming at understanding and improving communication on the interpersonal and intercultural level, which include, among others,

- everyday communication and socializing;
- communication in close and more distant relationships, e.g. in couples, in families, at the workplace;
- communication conflict — diagnosis and therapy;
- relationship work by politeness, humor, praising and blaming, etc.;
- analysis of cultural differences in different genres, communicative rituals and styles occurring in different settings such as healthcare, management, educational and legal contexts and developing adequate forms of intercultural training;
- translation and interpreting;
- lingua franca communication.

Communicative Competence of the Individual
This domain is characterized by applications of findings from language and communication-related disciplines that focus on the naturalistic development of all kinds of verbal knowledge and skills that are a precondition for communicating, on developmental and acquired disorders, and on measures of fostering the acquisition of knowledge and development of skills or by giving therapy to disorders. These include

- first language acquisition and mother tongue teaching;
- second language acquisition and second/foreign language teaching;
- literacy and literacy development;
- diagnosis and therapy of developmental and acquired disorders;
- changes of competence across the life span — attrition and loss.

As can be seen from the contents of the increasing number of handbooks of applied linguistics surveying the field, these lists of areas of application are by no means exhaustive nor can the domains be unambiguously demarcated from each other. Needless to say that only a very short part of these can be covered in a publication like this one. As second language acquisition and foreign language teaching are by far the biggest and best known of these areas, they have been deliberately excluded from consideration here. Instead, this AILA Review concentrates on the following topics:
Firstly, in his chapter *Current issues in language planning and policy research and their impact on society*, Jeroen Darquennes focusses on a key issue in the societal domain of application. He analyzes the way in which both bottom-up and top-down approaches characterize this field and emphasizes the various roles that applied linguists may take on in relation to stakeholders and practitioners when trying to solve problems of language policy and planning.

Secondly, Jan Engberg in his contribution *Legal linguistics as an arena for cooperation: Recent developments in the field of applied linguistics and law* addresses an unambiguously interdisciplinary field of application in a social institution — the legal sphere. He draws attention to a particular variant of the top-down / bottom-up issue, which can be described as a covert struggle between applied linguists and actors from the field of law for dominance in defining the object and in deciding on practical solutions or their implementations.

Thirdly, contribution *Diaspora: Multilingual and multicultural communication across time and space* by Li Wei and Zhu Hua cuts across domains in that it addresses issues on the level of societal multilingualism, intercultural communication and — by backing up their arguments with examples from interaction in multilingual families — interpersonal communication and conflict in close relationships. They emphasize that globalization — and here the internet as means to stay in contact with one’s country of origin and with family left behind — is changing the applied linguistic discourse on multilingualism, since living as a migrant in another country appears to be more adequately labeled now as living in diaspora rather than as immigration. In a top-down sociolinguistic ethnography approach they show the consequences for negotiating language, tradition and identity in diaspora contexts.

Fourth, Daniel Perrin in his contribution *Investigating language in the media: The case of news-writing* gives another example from the domain of institutions and professions. Departing from a practical case, he shows how media linguistics, as an interdisciplinary cooperation between linguistics, sociology and journalism studies, in a typical bottom-up mode develops empirically-based theories of communication in the media and tests their potential for problem solving and for the training of professionals.

Finally, the contribution by Dorit Ravid, Amalia Bar On and Elitzur Dattner *Linguistics in the service of communication disorders: New frontiers* addresses the domain of communicative competence. They show how linguistics is a major source of insights and practical applications in the field of communication disorders and illustrate this in the areas of literacy development and developmental disorders, like hearing loss, language impairment and dyslexia. They also point out how communication disorders as a discipline draws on sociolinguistic insights and on research on bi- and multi-lingualism. All these applications, including communication technology in the case of hearing aids, are clear cases of top-down applied linguistics.

Though these are only five articles, it is hoped that they convincingly demonstrate the variety of applications in applied linguistics as practiced in the 21st Century.

References


Author’s address

Karlfried Knapp
University of Erfurt
karlfried.knapp@uni-erfurt.de

University of Utrecht
k.f.knapp@uu.nl