Expositions

Ignore at Your Peril: Paradigm Choice in Applied Linguistics

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There are 3 issues that applied linguistics as a discipline fails to attend to adequately. They are (1) the direction that work in applied linguistics should take; (2) which paradigm or paradigms to utilise for getting that work done; and (3) how to conceptualise the basic concepts and ideas operative in the field. To examine the first, one needs a definition of applied linguistics that appears likely to ensure success in taking the discipline in a desired direction. To handle the second issue, one must know which paradigm would best fit the work envisaged. The engagement with both these issues will already make it obvious that one needs to engage with the philosophy and the history of the discipline. The third neglected issue further emphasises that conclusion: We need a theory of applied linguistics that does justice to the basic notions of the field while being sensitive to how the concepts and ideas it utilizes have emerged in its history. If these are ignored, we may become victims instead of users of paradigms. Paradigm contestation can then become institutionalised as paradigm conflict, with deleterious professional effects. If we attend to them, it will allow us to work more responsibly, deliberately and productively. This paper takes a particular view of applied linguistics which attempts to honour its history, proposing a theory of applied linguistics which is non-reductionist, and which offers a framework to assess the relative merits of diverse paradigmatic claims, and so bring transparency and wholesomeness to our work. The paper gives examples of how such insight can be used productively, and enhance the theoretical defensibility of what we tackle in applied linguistics.

　応用言語学が学問として十分に対処できていない問題が3つある。それは、(1)応用言語学の研究が進むべき方向性、(2)その研究を進めるためにどのようなパラダイムを利用するか、(3)その分野で働く基本的な概念や考え方をどのように概念化するか、である。1つ目の問題については、応用言語学という学問分野を望ましい方向に導くために、成功が確実と思われる定義が必要である。二つ目の問題を扱うには、どのパラダイムが想定される仕事に最も適しているかを知らなければならない。この2つの問題に取り組むことで、学問の哲学と歴史に関わる必要があることは明らかであろう。3つ目の無視された問題は、その結論をさらに強調する: 応用言語学の理論には、この分野の基本的な概念を正しく理解すると同時に、応用言語学が利用する概念や考え方がその歴史の中でどのように生まれてきたかに敏感であることが必要なのだ。これらを無視すれば、私たちはパラダイムのユーザーではなく、犠牲者になってしまうかもしれない。パラダイム論争がパラダイム対立として制度化され、専門家として悪影響を及ぼすことになりかねない。もし私たちがパラダイムに注意を払えば、より責任を持って、より慎重に、より生産的に仕事をすることができるだろう。本稿では、応用言語学の歴史に敬意を表し、非還元主義的な応用言語学の理論を提案し、多様なパラダイムの主張の相対的なメリットを評価する枠組みを提供しようとするものである。

Keywords: non-reductionism; paradigms in applied linguistics; responsible design; theory of applied linguistics

Where Our Work Begins … And May End

Imagine an applied linguistics task which aims to minimise drudgery, bring hope, ensure respect and gain a good reputation as a trustworthy plan. We may be talking here of a language course that effectively uses the time needed to complete it, or a language policy that aims to enable clear language use, or a language test that has proved its mettle over time by giving accurate and fair measurements of language ability. All of these language interventions would have been designed to achieve this goal, and that would have set the direction of the design work. Thus our work as applied linguists begins: with the goal to alleviate misery related to language loss or absence, to treat users fairly by considering impact, or generally to benefit the recipients at the receiving end of these designed interventions.

Such socially appropriate direction-setting goals were not always part of applied linguistic endeavours. If we look back in history, we may find that at the outset finding the most efficient way of teaching and learning another language was the dominant goal for language courses. In the case of language assessment, the emphasis might previously have been exclusively on the reliability and validity of the language test we have created, again with not much concern for the social impact of the measurement. In respect of the adoption of an institutional language policy, the goal might even have been a less admirable one: appeasing political powers, instead of facilitating productive language use within an organization.

Thus, the direction that the design of applied linguistic interventions takes varies historically. Applied linguistics changes its direction over time. As we advance, we may add further conditions and principles that apply to our designed interventions to solve (usually) large-scale, pervasive and apparently intractable language problems.

Whether we are at the beginning of our careers as professional applied linguists, or already mid-career or mature professionals, the question of what conditions and principles characterise our work matters. When we ignore this, we either get caught up in the institutionalized power of the paradigm we have been taught in, or, should we realize that, blithely accept victimhood. In that case we may still find ourselves employed productively, even as we unreflectively continue along a professional path that might otherwise have been enriched by greater theoretical awareness and openness to alternatives.

Disciplinary Theory and History in Applied Linguistics

When a discipline changes over time, it has a traceable history, even when that history is as short as that of applied linguistics (De Bot, 2015; Weideman, 2017a, 2024). Such change means that it is likely to harbour a diversity of definitions of itself. At the same time, it may be reluctant to consider those definitions and the effects they may have on work in the field. There could be many reasons for this, but the one that I wish to foreground in this paper implies that we should not judge such reluctance among applied linguists (or those in any other field) too harshly. Defining a discipline is itself not a disciplinary issue. A discipline cannot define itself. Taking applied linguistics as an example, we note that its tools and instruments – its methodologies – are conventionally geared toward solving issues related to language problems in society. How those solutions are devised, in the formulation of language policies, in the design of language curricula and courses, and in developing language tests and assessments, illustrates the workings of the discipline, but is unhelpful in defining it. Such endeavours may thus illustrate what is happening, without attempting to define what is being demonstrated. The work presupposes and implies a definition, rather than articulates and concisely expresses what it entails.

That kind of reluctance is not limited to finding a satisfactory definition of applied linguistics. The quest for a clear definition of applied linguistics reveals that there are actually three interrelated issues that applied linguistics as a discipline fails to attend to adequately. They are:

(1) the direction that work in applied linguistics should take, as we noted in the introduction above;

(2) which paradigm or paradigms to utilize for getting that work done; and

(3) how to conceptualize the basic concepts and ideas operative in the field.

The issues are intertwined. Considering the first two, it should be obvious that knowing which direction is going to guide disciplinary work will be closely related to the choice of paradigm adopted by the applied linguist. With that, one has landed squarely in the realm not of applied linguistics, but in the philosophy or theory that supports it, and its disciplinary history. The third issue, of how we conceptualise the fundamental concepts and ideas of applied linguistics, emphasizes that conclusion still further: we are in the domain of theory about what it is, and have yet to begin employing the theory.

As we noted above, if we are historically aware, we would at the same time have to acknowledge that concepts and ideas used within a discipline emerge and change over time. To give one practical example: in the last twenty years, in the subfield of applied linguistics which is language testing, the notion of language assessment literacy has been discussed and scrutinized thoroughly (Taylor, 2009, 2013; Fulcher, 2012; Inbar-Lourie, 2017). Broadly, this kind of literacy entails the degree of knowledge of principles, practices and policies of language assessment that users of language tests possess. In the discussion that has since developed about this, the fundamental applied linguistic ideas of 'transparency', 'accessibility', 'communication', 'accountability' and 'impact' figure much more prominently in later reviews than the applied linguistic concepts like reliability, validity, and construct that were employed earlier. Our concepts have developed over time, to consider not only what appear to be empirically demonstrable concepts like reliability and validity, but now embrace the cultural, social, political and ethical dimensions of language testing (Weideman, 2017b; McNamara & Roever, 2006). The latter may be harder to quantify.

The argument of this paper will be that it is more than worthwhile not to neglect these issues, but rather to tackle them historically and systematically (which I shall use as a synonym for treating as theory, as philosophy or as fundamental analysis).

Paradigm Diversity in Applied Linguistics

Let me tackle the first two issues together. First, if applied linguistics has a history, we could examine how it has evolved. Should we find a variety of paradigms operative in its history, there are a number of conclusions to be made. Second, if there is variation in paradigm, that is likely to be an indication of non-neutrality, of potential bias, and of limitations in theoretical perspective, and that would have an influence on how the discipline is defined.

Since Kuhn (1962) alerted the scientific community to the existence of paradigms and paradigm shift, it has been impossible to think of science as a purely impartial, neutral endeavour. Positivist assurances that science was indeed so were overtaken by counter arguments in the work of Popper and others. As Strauss (2004) points out, Popper's proposal for a critical rationalism acknowledges that the belief in rationality, which lies at the basis of positivism, is itself not rational. Soon, paradigmatic diversity was not only recognized, but celebrated, as in Feyerabend's (1978) exhortations to embrace multiplicity in this respect: "Proliferation of theories is beneficial for science, while uniformity impairs critical power" (p. 24).

The diversity in applied linguistic paradigms is evident in the philosophical chasm that separates modernist and postmodernist approaches in applied linguistics, a rift that Cook (2015) has described as insurmountable:

> Across the supposedly unified field of applied linguistics, there is … an unbridgeable divide … between those who maintain a broadly rationalist, modernist, structuralist enlightenment approach to knowledge, and those who have rejected such a stance in favour of a post-modernist post-structuralist approach … These two directions are logically incompatible … (p. 429)

Though this is a very broad distinction, one may refine it further by identifying a number of styles of working in the discipline that align with these two apparent extremes. Early applied linguistics had a linguistic and psychological pre-occupation, justifying its language teaching designs with reference to those fields in order to boost the theoretical credentials of its solutions (Fries, 1945; Lado, 1964). Its essentially structuralist and behaviourist views of language and learning were replaced with an interactionist, communicative view of language (Habermas, 1970; Hymes, 1971; Halliday, 1978). This leaned on perspectives on functional language use in discourse, which became the theoretical defences of approaches

to language instruction like communicative language teaching (Paulston, 1974; Wilkins, 1975, 1976; Munby, 1978; Littlewood, 1981, 2014) and its later offshoots (Krashen & Terrell, 1983; Littlewood, 2004; Skehan, 2003; Wesche & Skehan, 2002) or alternatives (Roberts, 1986; Stevick, 1980). Three further styles influencing applied linguistic designs then emerged in quick succession: a realisation that our use of scientific theories to justify solutions was indeed multidisciplinary (embodied in the work of van Els et al., 1984), followed by justifications related to a renewed interest in the acquisition of an additional language, and then to constructivist explanations of language learning.

In the last thirty or more years, postmodernist approaches have been pitted against those related to complexity theory, as sixth and seventh possible styles of doing applied linguistics. Both of the latter display a dizzying variety within themselves. Postmodernism remains characterised essentially by its attention to a multiplicity of perspectives on how political issues are reflected in language arrangements (Pennycook, 2004; Weideman, 2003) veering also into poststructuralist (McNamara, 2008, 2012) and posthumanist directions (Pennycook, 2018). Complex systems theory may take inspiration from either the natural sciences (West, 2017), or from realist social perspectives (Bouchard, 2021), and be variously termed complex systems theory, complex dynamic systems theory, or complex adaptive systems theory or CAST (Larsen-Freeman & Cameron, 2008; for discussions, see Weideman, 2009, 2015).

Despite the split between modernism and postmodernism, however, one notices continuities among, for example, postmodernist emphases on a plurality of perspectives and earlier calls for multidisciplinary inputs. Another example of where potentially contradictory methods are technically unified can be found in the continuity in emphasis on the four 'skills' (listening, speaking, reading, writing) in the audio-lingual method (e.g., Wakeman, 1967). That method brings together the emphases in two earlier language teaching methods, the grammar translation method (which focussed on reading and writing) and the direct method (which stressed listening and speaking). There are many examples of links between apparently opposing and incompatible styles of work in applied linguistics, enough to warn the practising applied linguist to be mindful and deliberate in choosing a paradigm or disciplinary style to work in. Since the variations in applied linguistic paradigms endure and not only succeed others, they may continue to co-exist. Thus, theoretically justifying the design of solutions with reference to an eclectic collection of them can amount to a complicated scholarly navigation. The integrity of our

work is at stake if we mix and collate without deliberation, as we may adopt solutions that are essentially contradictory. There are sufficient examples of how such conflicts have worked their way into designs to the detriment of learners (Weideman, 2002).

The variety of paradigms evident in this broad-brush characterisation of the history of the field of course results in various definitions of applied linguistics. With regard to their potential institutional intermingling referred to in the previous paragraph, I should caution that the statement at the beginning that we do not pay adequate attention to the definition of our field should be qualified. It does not mean that no attention has been given to defining applied linguistics. That this is so, is evident in the regular discussions of such definitions over time (e.g., Corder, 1972; Kaplan, 1980a, 1980b; Malmberg, 1967; Marckwardt, 1965; McNamara, 2008, 2015; Paltridge, 2014; Pennycook, 2004; Rajagopalan, 2004; Weideman 2007). The broadest definitions of the field use 'language' and the problematisation of social issues as characteristics. There are several arguments about that being problematic, which I shall not repeat here (see Weideman, 2017 for a more complete discussion). One of the unintended effects is to accommodate clearly linguistic subdisciplines related to sociological studies or even the sociology of language under the label of "applied linguistics". In view of the analysis thus far, the critical question here is then: what are these investigations to be used for? Are their results to be employed ('applied') in any way? In that case, the research will be slanted towards yielding a solution to the language problem which is to be addressed. It will be research, but not only to gain a theoretical understanding of a phenomenon, or to bolster or reject some theoretical insight. I shall argue in what follows that the kind of academic investigation that is aimed at imagining and devising a solution to a problem is different in kind from 'pure' theory. In contemporary popular terms, applied linguistics is more concerned with solving a problem than figuring out a theoretical puzzle. With this, we have progressed towards addressing the third issue flagged above: how do we form concepts in applied linguistics? If we accept, as many do, that applied linguistics can be informed by a multiplicity of theoretical sources from a variety of source disciplines, do we form concepts in terms of those original, source disciplines, or is there from the outset another angle from which we take our cue?

Angle of Approach: Modally Identified

To answer the question of how concepts and ideas are formed in applied linguistics, we should be clear, first, about what the analytical angle of

approach is from which we shall be pursuing such concept formation. This is a condition that needs unpacking.

Theory formation is characterized by analysis or abstraction (Strauss, 2009, pp. 14-15), in that we engage in the acts of identifying and distinguishing. We lift out certain things - abstract them - and disregard others. In applied linguistics, we can perhaps start by distinguishing between the various types of designed interventions, as objects potentially worthy of theoretical examination. The three main types of applied linguistic artefacts (there are others, which we are disregarding for the moment) are language policies, language courses and language tests. Similarly, we can choose to examine not only these objects, but also the subjective processes or events in which they are used. Such processes may include language use, enablement and facilitation within social institutions in the case of policies; in the case of courses, language instruction in live or virtual classrooms or the process of language learning; and language testing events and their social impact. Or we might choose to consider in our research the state or condition in which language presents itself: a complicated multilingual environment within a single institution that needs regulation; a problematically large classroom population; or distinctly heterogeneous levels of ability within the same group of language learners.

All of these applied linguistic objects (policies, courses, tests) and subjective processes, events, relationships or states are distinguishable, and hence worthy of scholarly attention. Yet we can take the level of abstraction still further, from concrete artefact, process, event or state, to ask what the modality of our engagement with them is. That presupposes that in addition to a realm of concrete objective or subjective entities or relations, there is also a modal dimension to our experiential horizon. When we abstract at the level of the modal structure of our experience, we ask the question: What is the nature of our involvement with these concrete entities and eventualities? Which modality best captures the type of engagement?

The particular answer I have given to this rests on the observation that the history of applied linguistics indicates that our involvement is one of designing a language intervention. That places 'design' at the heart of our engagement with the pervasive or recalcitrant language problem, and the further conclusion is that something characterized by 'design' – an involvement, in the present case – can be termed 'technical'. There may be other, alternative terms, but 'technical' has over time for me become the best term for that mode of engagement. It is intended neither in the sense of meaning 'complicated', nor in that of "not always intelligible to a lay person/

the uninitiated", but rather to express a mode of being that is characterized by shaping, planning, influencing, arranging, facilitating, devising or designing. The technical modality of our experience is one that has 'design' as its nuclear, defining moment. The answer to the question about the nature of our involvement, the angle of approach to devising solutions to language problems, is: it is a technically stamped endeavour.

We are now in a position to demonstrate how taking this route of theoretical abstraction assists our concept formation in applied linguistics. It has helped us to identify the characteristic modality of applied linguistic endeavours, and can now assist us in conceptualizing the fundamental principles and requirements for designing those artefacts to manage the language events, processes or states we encounter in our work.

From Abstraction to Condition: Putting Theory into Practice

All of the conditions for the design of applied linguistic interventions that we have mentioned in passing so far are identified requirements for designing these interventions responsibly. I use the term 'responsible' rather than one that perhaps more conventionally describes what I mean, viz. responsive. I do that because I want to add a normative dimension. In applied linguistics, we indeed subjectively respond to norms for the design of interventions. In that case, we are not merely responsive to, say, factual language needs or concrete, urgent language conflicts and dilemmas, but we also do so with deliberation, recognizing that we are responding to technical norms. If we say that a language test must be reliable and valid, we are setting normative requirements that we should respond to in making that test, and which the eventual test must satisfy. The kind of reliability and validity we are referring to is a technical one: we need to design the test so that it measures in a technically consistent way, and is effective ('valid') in yielding a measurement. Technical reliability and validity are norms that we respond to; if our response is adequate, we are giving shape responsibly to those fundamental requirements or design principles. Phrased another way: we are practically applying principles by designing in conformance to them. Also in passing, we have mentioned design conditions (which we now may treat as technical norms) like 'transparency', 'accessibility', 'communication', 'accountability' and 'impact', as well as the technical unity that can be achieved, as we have noted, by bringing together not pairs of two 'skills' at a time, as in some traditional methods, but all four of them in one teaching method.

Where do these norms derive from? What makes it possible to conceive of technical unity as a design principle, or seeking technical transparency in our articulation of our designs, or becoming accountable for the language policies we have developed? Where lies the conceptual basis for our examination of the technical impact of the intervention?

The answer has been suggested above: Our technically qualified work in applied linguistics links with other modalities or dimensions of our experience, with social, political, ethical and, in the case of the condition of technical unity, with the numerical mode. This is so because, if we are serious about avoiding the reductionist premises of modernism, we shall veer away theoretically from promoting the single mode of experience that we have identified as our angle of approach to an absolute, promoting it to the key that will explain everything. Everything is not feeling, nor is it an unbroken chain of cause and effect, or history (and therefore relative). Neither are beauty, justice, power, or science the be all and end all of everything. Applied to this case: the technical modality which we have indeed singled out as our angle of conceptual approach is related to all other dimensions of our experience. The first set of these other dimensions include the numerical mode, the spatial, the kinematic, the physical, the organic, the sensitive, and the analytical. From the relations of these with the technical we may derive, in sequence, the concepts of technical unity (echoing the numerical), technical range (referring to the spatial), technical consistency (the link with the kinematic), technical effect (a physical analogy), technical differentiation (an organic analogy), technical appeal (arising from the link with the sensitive aspect) and technical-theoretical defensibility (or what is sometimes called "construct validity" with reference to the theory supporting the design).

Each of these analogical technical concepts yields a particular set of design principles, which we have to comply with. An applied linguistic intervention is responsibly designed if it can be shown to possess a good measure of technical homogeneity, covers a limited range, is reliable, adequate ('valid') and differentiated, and furthermore has both technical appeal for its users and can be theoretically defended with reference to current or plausible theory.

Design Principles: From Building Blocks to Lodestars

The relations between the technical modality and the others discussed in the previous section yielded what may be termed constitutive principles for the design of language interventions. The links of the technical aspect with the remaining functions or modes may be conceived of as technical

ideas, comprising a complementary set of analogical notions. These modes, which are analogically reflected in the technical, are the lingual aspect, the social, the economic, the aesthetic, the juridical, the ethical and the sphere of belief or certainty. Technical ideas are approximating concepts, somewhat harder to define, and thus more open to contestation than those in the first set. There cannot be much argument about the technical reliability of a test, for example, if a statistical analysis of its consistency has been done, and expressed quantitatively in the form of an index such as Cronbach's alpha (coefficient alpha) as 0.93. But, though we should still do it, we might not as easily be able to demonstrate whether the test results are interpretable and meaningful. The latter idea, of technical meaningfulness, gives rise to a design norm emanating from the analogical link between the technical and the lingual mode of expression. Compared to the former concept of technical consistency, however, it is a guiding, regulative principle or lodestar, rather than a constitutive one that is an essential building block.

In the same way, the analogical idea linking the technical modality to the social mode may yield the design norm of technical appropriateness. Taking an example from language testing again, we may seek to demonstrate a fit between language abilities of the social group taking the test and the difficulty of the items making up the test, to ensure that the measurement is appropriate. An intervention must also be technically frugal, and the many new ways now emerging of how we might employ applications of machine learning (AI) to save design and instruction time are an indication of how we can conform to a design norm linking the technical and economic modalities. When we link the technical and the aesthetic, we meet the requirement of harmonising the various language interventions operative in an institution. Organisational language polices must be aligned with language assessments and language courses within a university or school, for example. In becoming accountable for our designs, we are able to do so because there is a link between the technical and the juridical. When we design a test that treats test takers fairly, we have ethical connections with the technical in mind. And finally, the reward for developing and maintaining quality language interventions over time (a goal of all the major publishing houses that offer language courses, and of every commercial test maker) is that of building a technical reputation. With that, the technical idea linking our designs with the sphere of belief and certainty becomes prominent.

The design principles discussed in this section function not as building blocks for design, as those constitutive concepts analysed in the previous section, but rather as lodestars. They are regulative technical ideas that

deepen and enhance the meaning of our designs. They strive to fulfil the goal mentioned at the beginning: to design solutions to language problems that benefit the recipients, restore their dignity by offering wholesome and accessible solutions, and, in being both academically and publicly accounted for, contribute to the transparency of our interventions. They should on these grounds be publicly justifiable solutions. To design language interventions to solve stubborn language problems with reference to principles is done not for the sake of theory, but for the benefit of those affected by the interventions. I believe that there can be little argument about this. It is embodied in the goal of responsibly designing language interventions.

Momentarily Suspending Objections

It is appropriate to end with a remark about the usefulness of theory. Adopting this framework means acknowledging that our experience contains a modal horizon, which in turn enables us to utilize the variety of distinguishable modes of experience – the numerical, the spatial, the organic, the technical, the aesthetic, the juridical, the ethical, and so on – not only as ways or modes of being, but also as modes of theoretical explanation. This reflection has focussed specifically on how the technical mode of experience can be employed to form applied linguistic concepts and ideas that explain the fundamentals of the discipline. These fundamentals, discussed in the previous two sections, have been identified as constitutive and regulative technical concepts and ideas.

The framework presented is neither incontestable nor final. Yet, despite its provisionality, I request my co-discussants in this debate to hear it out, and clarify, before dismissing the issues raised as unimportant. The perspective on applied linguistics outlined above may well give rise to objections. One is that such a highly focussed view may exclude many traditional perspectives on what applied linguistics is and what it should do. The robustness and richness of the framework briefly outlined above should set objections of exclusion aside. The claim is simply: if we seriously examine all work done under the disciplinary label of applied linguistics, there is not much that will conceptually escape the reach of the seven constitutive analogical technical concepts mentioned above, or theoretically evade the seven regulative ideas discussed in the previous section. In fact, one of the main current uses of this theory of applied linguistics is that it enables one to evaluate the paradigmatically inspired variety of emphases of different theoretical starting points. What is missed by one, may be complemented by what is being achieved in adopting another. CAST is a good illustration of this, and is

evaluated accordingly in terms of this theoretical framework: it contributes greatly to our understanding of technical life, development and emergent organisation. In taking this approach, the theory proposed here mediates between potentially contradictory and conflicting paradigms. It provides a platform for communication rather than paradigm conflict.

The framework, in my experience, is robust and adaptable, quite useful in evaluating the merits of an applied linguistic design, and wholly implementable. At the same time it is open to challenge. Its theoretical lacunae need to be identified and dealt with.

To meet that challenge, I hope to have stimulated here the beginning of a debate that is worth maintaining. We need to attend on a sustained basis to the issues of where we want applied linguistics to go. We need to continue to enhance our awareness of paradigm variation and also what choosing to work within a paradigm means to us, professionally. Finally, we should take the development of a theory of applied linguistics (Weideman, 2024) much more seriously. That is a professional demand for applied linguists, and for that we need scholarly discussion.

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