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***Multi-Lingualism and Multi-Literacy:
possibilities, potential and limitations of interdisciplinary
research on linguistic and cognitive development***

Prof RJ Balfour



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Potchefstroom Campus
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POTCHEFSTROOM
2520*

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Address to Audience on the Occasion of an Inaugural Lecture: (12 April 2012, Potchefstroom Campus, NWU)

Multi-lingualism and multi-literacy: possibilities, potential and limitations of interdisciplinary research on linguistic and cognitive development

Robert J. Balfour, Professor and Dean of Education Sciences, North-West University

1. Preliminary Remarks

The first Inaugural Lecture I attended was that of John Gouws, Professor of Renaissance Poetry at Rhodes University. At the time I was a student in the English Department, and the first impression of Professor Gouws, was of the eminent professor, a mass of gray beard and gray hair, and a subject which seemed so remote, and far removed from my experience, that it convinced me that Inaugural Lectures were best provided by academics seemingly on the verge of retirement; and that anything meaningful in scholarship, or any significant insights, came almost at the end of a career in academia, rather than in its middle. It made more sense then to be thinking of “’n uitreerede eerder as ’n intreerede” preferably on a subject that few people could relate too, and with many technical and abstract terms so that the audience would be left mightily impressed and very confused. The opportunity to make a contribution to scholarship, requires a certain maturity rather than age. *Maar is akademia soos daardie idioom: “om ouer te word is onvermybaar, maar om volwasse te word is opsioneel”?* The idea of an “intreerede” suggests something of the journey into scholarship, rather than the maturity of accumulated wisdom. Is the Inaugural Lecture meant to be a contribution to scholarship, rather than only a restatement of interesting work? It is possible, to play with an English idiom: “to offer something new, from something borrowed, and something blue”.

I want to add that the idea of a lecture left me feeling decidedly “blue”. I felt I had to do all the above; arising no doubt from that middle class habit of thinking that no phone call should go unanswered, no email unopened, no sms ignored. So, I not only needed to be make to make a new contribution to an existing field, but also provide the basis and theories for pursuits and ideas to come. In the preceding weeks the Afrikaans word “intreerede” became a little hell: it suggested everything from entry, to recognition of competence, initiation into the profession, to relevance, and then still to try to entertain you without ending up sounding like a clown. All this in 40 minutes. But even as I tried to think of the happy academic pursuits to come, I was again at odds with that idea – was the best yet to come? What if the best was already gone? An overview of the work I did on bi-lingual language development, policy and planning at the turn of the century shows that this is the most quoted work. Within terms such as these was the best already past. The “intreerede” might have the feel of something that the Nobel Laureate for

literature in 2005, VS Naipaul (Naipaul 1979 and Donadio 2005), noted when he said: “You felt as though you had arrived in a place where the future had come and gone” (1979, 33).

To return to the beginning: I thought I would begin with a survey of what had been understood until now, about multilingualism, bilingual acquisition and the policy development necessary to best support bilingual education. At the same time I worried that what we had, what was gone from our curricula, might be what was best about it. How then to say something relevant, and new, without seeming to rely on old truths? Because the three areas in which I worked spanned linguistics, education and cultural studies, I was led to think that research questions could sometimes be approached from a variety of related fields of enquiry and thus be described as an interdisciplinary approach. Could I then choose for the Inaugural lecture several at paths almost at once, and still be taken seriously as an academic? The poem written by Robert Frost (*The Road Not Taken*, 1916), while speaking to an absolute truth, could not address the truth of my own scholarly development: several paths, some more taken than others, and some of which took me, rather than me taking them, but more of that paradox later. My sense, ladies and gentlemen, is that I am not alone on the interdisciplinary journey, and that all educationists here this evening, will also recognise the features of credible interdisciplinary work. As a scholar in education, and as a scholar of education, you must walk at least three paths: awareness of the theories of learning that underpin policies and the national curriculum, scholarship concerning the discipline in which we studied (be this bio-kinetics, law, linguistics or education history), and the scholarship concerning how such knowledge is communicated in its methods; what educationists term pedagogy.

At its best interdisciplinary work is the synthesis of insights arising from a range of somewhat connected fields of study, to shed light on an issue common to those fields, but on the margins of each (another paradox). Bilingual language education is one such issue. It touches on language acquisition studies, language pedagogy, and education policy development. It is also the reality of South African multilingual and multicultural life.

Academic work favours increasing specialisation: the scriptures are filled with those stories in which the believer chooses the difficult path over the one taken by the wicked with their ways of easy-living and loose morals. I have to say the broad path has always appealed to me. In academic life, just as in the homes of several Afrikaans friends, there is also depicted and represented the idea of the “breë en die smalle weg” in which the pilgrim begins the arduous journey of academic scholarship through ever more narrow paths towards an ever narrowing specialisation leading ultimately (dare we jest about it) to a very

small light at the end of an extremely long tunnel. For those of us (invariably students rather than scholars) who choose the “breë weg” there are the delights of:

- a) the gardens of good and evil (the house of speculation, rather than the house of reason),
- b) the temptations of quick gratification (popular scholarship and public fame),
- c) the gambling houses (false assumptions and incredulous ideology, rather than careful observation and deductive thinking),
- d) those nymphs and damsels associated with colourful trends and fashions (remember when Marxism was the rage of the 70s?),
- e) and finally, those bordellos of disciplines like cultural studies, in which one is attended to by scantily dressed theories like Cosmopolitanism (Appiah 2006) and New Historicism (Brannigan 1998), plurilingualism (Beacco and Bryam 2003) and multilanguaging (Reyes 2001). What the on earth is all this about?

The temptations of “die breë weg van akademia” is moeilik om te weerstaan sê ek vir julle!

Rather than load you with academic references and scholarly quotations, I would much prefer to entertain you with some ideas, and assure you that each even if I make light of these, they are derived from careful thinking and research.

2. Definitions of bilingualism, multilingualism, and the South African context

But, how to begin to show (rather than tell) why finding the answers to the critical questions about “why multilingualism?” and “why multiliteracy?” in South Africa, need us move beyond what we know, and to question the very ways in which we come to know as teachers, academics, students. One way to understand the concept of multilingualism from a linguistic perspective is through understanding varieties of bilingualism as defined by scholars. This is important because, despite claims by scholars to the contrary, not all languages are equal and not all languages are used equally. Definitions of multilingualism may be derived from an extensive literature in which bilingual research features prominently. Social interaction in multilingual societies may require more than two languages, and in this case it is useful to distinguish as does Krashen (1988) between languages which are acquired and languages which are learnt. For the former, comprehensible input is needed, while the latter concept is associated with formal language learning towards the development of awareness and grammatical competence. Butler and Hakuta (2004, 118) divide this bilingualism as early or late bilingualism since the achievement of fluency associated with each differs depending on the “age of exposure to two (or more) languages” (118).

In relation to the above, scholars have variously defined bilingualism as the degree to which a person can command native-like control over more than one language (Bloomfield 1933, 56), to persons who can communicate meaning in more than one language (Haugen 1953, 7), to persons who while using only one language, may have an understanding of others (Grosjean 1999; Lambert 1974). Weinreich (1953) and Widdowson (2001) distinguish between dormant bilingualism (awareness of two languages, but the use of one), balanced bilingualism (the more or less equal use of at least two languages), dominant (where the use of one language is privileged over another because of status or context), compound (which is the learning of two languages in the same place where one language is used to learn another), and coordinate bilingualism (which is the learning of two languages in two places, or where two language are learnt independently).

I wish to distinguish between the bilingualism necessary for daily communicative interaction, and the bilingualism necessary for formal learning and teaching in South Africa. It is the latter with which I am mostly concerned and in this domain, there is a further need to distinguish between what is possible in the early years of learning in schools, and in the early years of tertiary education. Few members of the population have achieved what Widdowson (2001) would term “coordinate bilingualism”, where a person can express or understand complex meaning in more than one language in the four basic literacy skills. The reason for this is noted by Barnes (2004): the education system in South Africa has not, historically, been able to offer formal and sustained learning as well as acquisition opportunities for the majority of the population in more than one language, despite there being a wealth of languages and literatures available. Instead learners have either had to make the transition from mother tongue education too early, or had to acquire languages (English and Afrikaans) inadequately as a consequence of insufficiently educated teachers, inadequate resources for language development, and too few opportunities to use the target language. Language development for higher education has thus been a patchwork characterised by unequal proficiency and inequitable distribution of opportunity. Unequal in this sense: what indigenous languages that were offered to children were offered for only a short period (for example, the 1980s a child could learn Setswana or Sesotho in primary school, but then switch to all English or all Afrikaans classes after the age of 11). Inequitable: in many schools the introduction to English or Afrikaans occurred too late for children (after the age of 11) who by this time had passed what is often referred to as the maximal window period for language learning.

Despite these limitations people negotiate culture, face (or dignity) and identity through more than one language, and balance the need for modernity, the value of tradition, with awareness that

multiculturalism is normative in South Africa. The education system post-1994 attempts to support multilingualism through encouraging the learning of more than two languages throughout schooling, and the use of at least two languages for learning in higher educational contexts (see Singh 2009). But rather than focus only on debates about the prominence of some languages and the rights to mother tongue education, I want in sections to come, to advance another case for bilingualism, which is based on research in the early years of childhood.

3. Cognition and bilingualism

I want to illustrate this case with an obvious method which seemingly has nothing to do with language. To prepare for this lecture I began by counting. Of my publications over the last sixteen years two fifths are located in education (an example of some of this work: Balfour, de Lange, Khau 2012), two fifths in applied linguistics (an example of some of this work is Balfour 2004), and one fifth in literary and cultural studies (Balfour 2010). By surveying what I had done, I saw that I had indeed developed in three distinct areas of social scientific research. One of the functions of knowledge is thus to provide a rational basis for what we already understand. The example is useful in other ways because while observation is natural to humans, its development as scientific method, is not a natural human facility. I want to dwell here, with your patience on that simple exercise of counting.

Counting depends on long term memory store. Numbers; their sequences and their patterns have to be memorised as well as understood, and the function of the former (arithmetic, computation) is critical to the development of the latter (or memory). One has to be taught to count at an early age, and even when the numerical system is linear, the ways in which we use it are non-linear: multiplication, division, equations, algorithms, and fuzzy logic have to be learnt. Pattern recognition enables us to understand shape, volume, mass, and proportion without having to do the actual sums. Simply put, the emphasis on numeric store in memory at an early age grows the capacity of the brain to develop systems of pattern recognition, not only such that we can add up the soaring price increases in fuel and electricity in the space of twelve months (a staggering 94% increase since 2010), but also that we begin to develop, early in life, the cognitive tools necessary to interpret pattern recognition in other complex systems like language. For example, ideology as it comes to manifest itself in language isn't dependent on multiplication tables, or square roots, but is dependent on the complex activity of understanding language and how it is used, always, to position a reader or an audience.

There is a second point to the example: we acquire the ability to count and to speak at an early age, but without formal learning, the extension of that human facility of numeric and linguistic acquisition, is made

more difficult. Although observation is natural to human beings, learning is not. Conventionally, linguists (Chomsky, 1965) have divided the numeric storing device and the language acquisition device (Vygotsky, 1966) as entirely different functions, and leading to the development of different skills. However, based cognitive science research and psycholinguistics show that this division is artificial rather than natural in the human mind. Similarly, scientists (Gazzaniga and Sperry) have tested for left and right brain functioning, and also concluded that facilities for specific skills exist in different areas of the brain.

Research by Gazzaniga and Sperry (1966) in the 1960s on split-brain patients led to an even greater understanding of functional laterality.¹ One of their main findings was that the right hemisphere was capable of rudimentary language processing, but often has no lexical or grammatical abilities. Zaidel (1976), in his studies of similar patients found some evidence for the right hemisphere having at least some syntactic ability.² Although I cannot do justice to this fascinating work in neuroscience, the point is that language acquisition is not associated with only one area of the brain.

What is sometimes lost in research on left and right brain functioning is awareness that both facilities serve a natural acquisition device in the brain: we refer to this as long term memory store and short term memory store. Whether the right brain may be defined as emotional and intuitive, and the left brain and rational and logical, the idea of two brains in one, is itself a contentious idea.³

If learning is thinking systematised to enable us to move beyond what we observe and into the imagination, then language is the means, by which we extend what we know, to understand that which is at present not fully known. In pedagogic terms, and specifically within my field, applied linguistics, this is termed “language scaffolding” (Wong-Fillmore, 1996) and its purpose is twofold. A teacher will provide the vocabulary to describe complex mathematical formula in Grade 2. An academic will provide the

¹ Split-brain patients are patients who have undergone corpus callosotomy (this is associated with a treatment for epilepsy) by severing a large part of the corpus callosum. The corpus callosum connects the two hemispheres of the brain and allows for communication between both parts or hemispheres. When corpus callosum is cut, the two hemispheres are not able to communicate as easily with each other. Gazzaniga and Sperry (1966) observed many interesting behavioural phenomena as a consequence of the severing of the callosum.

² For example: Patients with brain damage from accidents, surgery, stroke or infection sometimes develop a syndrome in which they can feel sensations in their a part of their body, but are not able to control that body part’s movements. In patients with a corpus callosotomy, this leads to involuntary movements.

³ For example: the vast majority of right-handed people (95%) have left-hemisphere dominance for language, but 18.8% of left-handed people have right-hemisphere dominance for language function. Additionally, 19.8% of the left-handed have bilateral language functions (Taylor and Taylor 1990, 362). Even within various language functions (e.g., semantics, syntax, prosody), degree (and even hemisphere) of dominance may differ.

vocabulary specific to a field to make intellectual scaffolding possible beyond what can be known in the early years of schooling. The point is that we advance understanding through the increasing complexity of rules observation and rules performance, the combination of which can be defined as intellectual growth (the use of rules observation and performance to extrapolate and extend what we already know in order to grasp the possibilities of what might not be known, but which is possible).

We know that children are particularly open to absorbing a great variety of observations quickly and that this capacity is accelerated in the early years of childhood and plateaus after puberty. This might lead us to conclude that children can learn anything fast, but is a false deduction because there are only some facilities that are accelerated, and others depend on reproductive and physical maturity. Why is it particularly important that a child learn more than one language from a very early age? Why is it that children should be exposed to a range of stimulating visual aids and required to recall the intensity, the composition, the narrative suggested by pictures? According to Baddeley, we possess separate but related capacities for visual and linguistic storing, and that the brain makes sense of both by drawing on both in the process of memory recall. Baddeley (2000) terms these capacities the visuo-spatial sketchpad and the phonological loop. To be literate thus suggests, automatically, the simultaneous articulation of visual, spatial and linguistic literacies. I cannot explore Baddeley's work further here, but it serves to illustrate two points: first, that as we observe more concerning brain functions, previous 'truths' come to be disputed, and second, that the development of memory is crucial to linguistic functioning and thus the development of bilingualism is a means of enhancing cognitive capacity and growth as suggested in sections to follow.

4. Arguments for bilingualism

Four explanations for bilingual advantage are made in research. For Vygotsky (1962/ 1932) and for Peal and Lambert (1962), it was clear that knowledge of more than one language might actually be "enriching and enhancing" of a child's development (Bialystok 2004, 579). Clark (1978, 36) speculates that "learning two languages at once, for instance, might heighten one's awareness of specific linguistic devices in both". Understanding the relation between words and their meanings consistently emerges as superior in bilingual children in three major areas of research.

First, grammatical competence studies: the famous study conducted by Piaget (1929) demonstrates the implications of enhanced word recognition. Children were asked if it was possible to exchange the words 'sun' and 'moon' and retain their meanings. Having agreed to do so they were then asked what star would then shine at night? Most children in the group responded that the sun would shine at night and

the moon by day. When asked what colour would the sky be if the sun shone at night?, bilingual children were the first to reply that the sky would be dark at night. Edwards and Christopherson (1988) and Eviatar and Ibrahim (2000) have consistently shown that bilingual children solve this problem earlier than monolinguals.

Second, vocabulary acquisition studies: Feldman and Shen (1971) experimented with a combination of real and nonsense names for children to learn. Both bilingual and monolingual children learned the names equally well and scored similarly on vocabulary tests, but bilingual children were consistently able to use the names accurately in new sentences, accepting that new names could be used “arbitrarily in a real linguistic context” (Bialystok 2004, 582).

Third, syntax awareness: Ben-Zeev (1977) showed that bilingual children are also more advanced than monolingual children when recognising syntactical rules. Asking a group of children to substitute the word ‘we’ with the word ‘spaghetti’, bilingual children could consistently make the substitution when asked “how would you say ‘we are good children?’ ‘Spaghetti are good children’”. Bilinguals are thus able to apply syntax rules more skilfully than monolinguals because awareness of two languages draws attention to their syntactic structures.

Huang and Hanley (1994) suggest that there is a complex relationship between phonological awareness and learning to read. In other words, we need to consider in our pedagogy the relationship between reading, which is essentially the silent pronunciation of words on the page, and understanding (which involves deductive and inductive reasoning). Galambos and Goldin-Meadow (1990) suggest that while bilingualism alters the rate of language development, it does not change the course of development for learners.⁴ This point is worth exploring further in the context of South Africa. Butler and Hakuta (2004, 126) suggest that the age of exposure to a language is an important factor in acquisition, but not necessarily a factor in learning. While children exposed to unstructured language in the early years learn languages with speed, adults can typically learn languages equally fast in controlled environments, provided there are sufficient opportunities for acquisition and learning. The point here serves to confirm that there does indeed exist a critical age during which language acquisition is accelerated, but that if

⁴ As regards phonological awareness: Genesee (1996) and Bruck and Genesee (1995) working with English-speaking children in a French immersion programme found that monolingual children had an advantage over bilinguals in terms of phonological awareness. Bialystok, Majumder and Martin (2003) found that there were no differences between bilingual children and monolingual children and concluded that “bilingualism is insufficient to fundamentally change the path to metalinguistic development” (Bialystok 2004, 588).

controlled support for learning occurs in later years, there is no evidence to suggest that languages cannot be multiply acquired by adult learners; a point to which I shall return.

Phonological development, key to Baddeley's three component model for memory, has been ignored after the early years in education in South Africa. And yet listening tests conducted with university students (Balfour 2002) show that students experience difficulty regarding the comprehensibility of English as spoken by different non-native speakers, or by native speakers of the language. Of particular importance is Strevens's (1965) and Lanham's (1995) finding that non-native speakers of English are less aware of loss or lack of comprehensibility. This research suggests that listening skills development which takes into account accent and pronunciation is key also to the development of reading skills for coping with higher education in multilingual South Africa.

Finally, we can confirm that the ability to distinguish between meaning and form, is more advanced for bilingual learners. This ability suggests that bilinguals not only are able to make sense of the world, and thus knowing and knowledge, in more than one language system, but that the compulsion to move between one language and another fosters an awareness of systems and the means by which human beings make sense of experience and knowledge.

Thus for the child who speaks one language, knowing that one language system well, from an early age, helps that child to learn another language with relative ease at a later age (scaffolding from observation to performance, from performance to awareness and from awareness to new learning). For bilingual children, knowing two languages well from an early age, and using those languages for literacy and numeracy learning develops awareness of languages as systems of thinking, in the way that numbers are systems of counting, capable of yielding infinite variety and insight (observation, performance, heightened awareness of contrasting language systems, insights regard systems and their relation to learning). The research on the advantages of bilingualism from an early age is compelling (Bialystok, 2004).

Another function of learning is to understand why what we know, is not true. In other words, the capacity for human beings to transcend the present, and to develop knowledge that transcends not only time but also experience, is a critical method in scientific and social-scientific research of refuting the truth of what we experience. Conventionally, the theories and observations regarding left and right brain hemispheres confirm that language is associated with right brain functioning, arithmetic and logic with left brain functioning. However, in the 1980s Baddeley who, whilst working in the field of psychometrics,

pioneered the area of long and short term memory store. Baddeley experimented with brain damaged patients at Addenbrooke's hospital in Cambridge, and it was the insights gained from working with Baddeley, that helped me understand that the Chomskian (1965) idea of the language acquisition 'device' was only partially accurate. Indeed, any close reading of Chomsky's work shows that very little evidence formed the basis for his argument. Rather it was Baddeley who discovered that patients affected by severe brain trauma such that the ability to count or speak was lost, could in fact re-develop this capacity in another area of the brain. In other words, early naturalist theories of ability have come to be superseded by cognitive theories of brain capacity. Unlike other limbs, the brain could re-grow its capacity, under certain circumstances, and provided certain forms of support were put in place. Thus what came to be known as true and observable about the structure and capacity of the brain, was refuted by what we came to understand as possible. This development has brought into closer proximity neuroscience to psycholinguistics and neuro-psychology. As we understand more about how thinking works, the divides between a range of disciplines become more permeable, and the need for interdisciplinarity, much more compelling.

Having described the arguments arising from neuro-psychology and psycholinguistics for early exposure to multiple languages, I want now to shift attention to language pedagogy which properly forms part of educational linguistics. Again we begin with definitions.

5. Pedagogy and bilingualism

Spolsky (1998, 48) defines compound bilingualism as follows: compound bilingualism occurs through the stages of interlanguages where one, or both, languages known by the learner are affected by each other. In the bilingual classroom or society, the ideal is to promote the use of languages such that one does not overshadow the other leading to what we described earlier as subtractive bilingualism. The ideal as mentioned earlier is coordinate bilingualism. In every South African classroom the pedagogy used to develop language leads, unintentionally, to compound and subtractive bilingualism. We see evidence for this in two areas in education: first, that children who come to school with Afrikaans or Setswana, make the transition from mother-tongue education to English around the age of 11. A history of poor quality language education leads to poor literacy levels in Grade 3 (as confirmed for example in the Annual National Assessment (2010) results), and the introduction of the second language occurs too late. This in turn leads to the formation of an 'interlanguage' (Selinker 1972): in other words, a language system insufficiently formed to enable the user to use it for anything beyond basic communication purposes. For example, in the overwhelming majority of rural schools in South Africa, English which is the official language of learning is neither the language of the teachers or the learners. The home

language of learners is mostly ignored in formal teaching (whether this be isiZulu or Setswana, and, to a lesser extent Afrikaans), and leads to subtractive bilingualism because the target language is perceived as more valuable as cultural capital (Lambert 1974).

Another example to illustrate the difficulty is the typical middle class multilingual classroom in South Africa. In these contexts children may possess more than two or three languages, but the teacher uses only one language (typically English or Afrikaans) while the learners who might have access to the teacher's language or not, interact with each other in pairs or groups in one language, and with other children, in English. Widdowson (2001, 10) terms this a:

permissive pedagogy...which allows for, even encourages, the learners' engagement of the L1, but again makes no acknowledgement of its existence in the design of the instruction itself. Monolingual teaching is justified in this case on the grounds that input in the L2, so long as it is comprehensible, will automatically activate learning.

In other words, in those classrooms where we claim to allow for communication in more than one language, we typically only make use only of one language when designing the instruction. Thus learning the target language occurs by assimilation because teachers cannot either access or explain how the learner's home languages can be used to understand the new or target language. Given no formal scaffolding upon which the internal cognitive processing of L2 through the L1 is made explicit, learners are in fact left to make those connections on their own developing a compound bilingualism.⁵

If all of the above is reasonable and based as it is on established research, the question we have to ask is why is it that we cannot seem to make the changes needed to take best advantage of children's natural learning capacities. And, why is it that when there are examples of the successful application of such research, as one might find in places like Quebec (Cummins 2000), or Hong Kong (Francis 2002), why in Africa does it seem so very difficult to shift policy and pedagogy to accommodate the differences of class and context? The answer to this question is more complex than merely a matter of will or desire for change and this leads me to the third area of my lecture tonight: to provide finally an account of the historical and global context to make sense, not of South Africa's history of racial inequality but rather the history of Western scholarship, its implications for developing economies and also our choices when it comes to language pedagogy. An epistemological account of knowledge can become a means of understanding why those of us who find ourselves in former colonies are positioned at a special

⁵ We know from the variable success of academic development programmes in South Africa (please see Mqgwashu 2007 for a full discussion of academic literacy programmes at selected higher education institutions), that development seldom progresses beyond the interlanguage stage.

disadvantage. The link between sections described earlier and this final part of the lecture, lies in how memory has come to be described, and as I pointed out at the beginning, the facility for memory, is a linguistic and numeric facility.

It was Descartes, one of the major proponents of rationalism, who articulated the split long evident in western philosophy when he said “I think therefore I am” (1637) to account philosophically for a left-right split which came to symbolise scientific endeavour and enlightenment values. The Cartesian split has its parallels in science in which that brain lobe in which was located all which was natural, intuitive, spiritual, emotional, dark and feminine, the other lobe which participates in reason and rationality, which is associated from the earliest times with what is light, and good, and masculine; what is reasonable and reasoned and tempered and wise. In western philosophy such binaries are not simple contrasts: whole traditions, entire scholarly fields, grand narratives about the chosen peoples (whether the Afrikaners here, or the Zulu’s down there; whether the Celestials out there, or Aryans and Jews up there, and even the British with their missionary zeal concerning bringing the ‘light of Christianity to the unbelievers’ in the colonies’) have grown up around these ideas, and led to the oppression of other people. The ideas themselves speak our thoughts through words which as Bahktin (1986) suggests, carry the histories of their own promiscuous interaction, and it is to a historical account that my lecture now shifts.⁶

6. History, colonialism and bilingualism in education

Award winning novelist Haruki Murakami (2009, 106) has stated that there are only two ways of verifying the truth of any change: either the world has changed and I have stayed the same (in which case what we know about the world we must be able to rely upon and must be verifiably demonstrated to us by us), or I have changed and it is the world which has stayed the same. In this case, that Shakespearean epithet “know thyself” must apply in the deepest sense of knowing why my actions are to some extent chosen, and to some extent determined. What is alarming is that much of what we think we know depends on our trusting that other people do know, or have known, and what it is that they have learnt, I either do not need to repeat, or can choose to know only insofar as it extends the possibility of my survival, or appeals to my curiosity. Either way, whether in the form of received spiritual wisdom, the

⁶ In fact, we cannot speak of any truth which even if unknown to us now, will not soon be interpolated (to borrow from Said, 1993), subjugated (from Spivak, 1988), delimited (from Foucault, 1976 and 1982), and interpreted. Numbers and words smell of the histories from which they stem, and the truths which their variously affirm or deny. And, of course, history is an extrapolated account derived always from memory.

anecdotal value of life experience from a parent to a child, or the verifiable scientific fact – all depend on cognitive store.⁷

But let's expand this focus to look at the nature of academic work itself. In scholarship we refer to the study of knowledge and means of organising knowledge as epistemology, and to understand the origins of knowledge as ontology. Thus the development of memory in the history of scholarship has three features:

- a) it parallels and influences the discourse of education methods of the period;
- b) it portrays the same features developed in terms of how the epistemological store of knowledge is formed and how fields of specialisation come to be delimited;
- c) it takes on the same ideological framing as derived either from natural or social sciences.

We know that the formal modern education project was developed in Prussia in the 18th century to serve the interests of the military and industrial State, and taxes were generated from the profits of the former, to sustain the expansion of the latter, just as we know that taxation and speculative capital were developed to satisfy the need of the State for revenue beyond the actual resource base for production. We know from the beginnings of the schools of literary studies in the 1940s in Cambridge and Oxford in the 19th century, that massed literacy was preferable to mass ignorance because a compliant and educated population was more easily persuaded of its role in industrial and colonial expansion. Both foundations may have been intended for different purposes, but the consequences of both is that elite ideas concerning knowledge generation, have been popularised and often enough the very means (access to literacy, access to education) have become the tools by which people resist and subvert coercion by an elite. What I offer in this second section of my lecture is a historicised account, drawing on Brannigan's (1998) understanding of the method of New Historicism, to explain the disconnection

⁷ Vast knowledge storage systems like libraries or search engines such as google, do not relieve us of the burden of memory, but depend on the presence of cognitive recognition skills that need to be developed most intensively between the age of 1-11. Bergin (2001) argues that children in literate middle class families experience as much as 1000 reading hours prior to schooling, whereas those from low income households may experience as little as 25 hours or none. According to DeLoache and her colleagues (DeLoache and Burns 1994; and Troseth and DeLoache 1998) it is when children are between the ages of 2 ½ and 3 ½ years that they are first able to understand what is represented by the picture on a page or screen. Bialystok's (2001) research on the differences between bilingual and monolingual children at this age shows that bilingual children outperformed monolinguals by as much as 40%: Monolinguals achieving right answers 40% of the time and bilinguals 80% of the time. Intensity of input, within the optimal age period for development, can thus be seen to lead to effective bilingual language development.

between curriculum and pedagogy in a developing State such as South Africa, and the international research on bilingual development and cognition.⁸

Mercantilism is an economic system with a complex history (Balfour, 2010). In the 17th century mercantilist practices associated with the medieval past were the subject of popular political leaflets in which the economic issues of the day were addressed through the medium of satire and persuasive texts (political propaganda). In particular the proposals made by Sir William Petty (1657-87) (Goodacre, 2010), a former senior colonial administrator of Ireland, as regards the Irish population recently subdued by Cromwell in 1649, are interesting. The proposals contained two features: the first was that Ireland be converted into a territory in which agriculture and livestock farming would be concentrated. In other words, that land be appropriated and that giant reserves be created for the purpose of providing a steady supply of vegetables and meat to the England. In order to facilitate this process, according to Petty, the Irish population should be removed from the land, and transported to England to become enserfed labour on the landed estates already there established. This would have the further benefit of creating what Petty termed a surplus population which would drive labour costs down, and thus make England more competitive with its European neighbours, and indeed globally since the associated costs of producing English goods would be greatly improved through the efficiencies of Irish labour. This economic solution to the “Irish question” had also an implicit and added third benefit. The gradual starvation of the transported population would deal with the problem of ethnic nationalism and ensure that those Irish who could survive in merry England would either be assimilated or exterminated. Bear in mind that the English expansion into Ireland was still within living memory at this time, and that the creation of an empire had not yet occurred. Great writers of the day (Daniel Defoe, *Robinson Crusoe* 1719, and Jonathan Swift, *Gulliver’s Travels* 1726) took delight in lampooning Petty’s proposals but not because of the racial genocide implied therein, but rather because of their objections to the underlying economic principle: a mercantilist principle where captive markets would be created for the sale of goods through monopoly (or charters as they were known).

Now what if anything does 17th century England, have to do with education in post-colonial South Africa? To be sure colonial Irish experiment became the model for the continued expansion for English colonial power. At its most primitive the securing of colonies was an extension of a mercantilist idea common in Europe. As over-population at home led to industrial modernisation, the need for resources to sustain

⁸ Brannigan in *New Historicism and Cultural Materialism* (1998) claims that “literary texts occupy specific historical and cultural sites...at which...political and ideological contradictions are played out” (203); and furthermore that texts are “part of the process of ...change, and indeed may constitute historical change” (203).

European domestic growth took the form of securing ready-made markets for consumer goods. At the same time, mass literacy campaigns came to be formalised within education as it was realised that free and skilled labour was necessary to keep abreast with industrial progress. In other words, the value of slavery, from an economic, as well as moral perspective, had run its course. The growth of capital requires that populations not be captive, that people be literate and that tastes for consumer goods and quality of life grow, and with them the demand for easier access to market places, the need for moveable capital in order to source the greatest quantity of goods, from the cheapest resource base in the closest proximity to cheapest labour. And herein lies another paradox. An educated population, aware of its freedoms from oppression and able to organise itself against exploitation is likely to become more expensive, both in terms of the need to supply goods, and the demands for better living conditions. Colonies (or reserves or Bantustans) thus provided for a semi-ideal geo-political circumstance: educated just enough to maximise economic efficiency and create a market for finished products, but at a sufficient remove from the military and industrial metropolis.

But, precisely this state of semi-development created the circumstances also for the creation of a political economy in which away from the 'motherland', a politics to subvert imperial practices, refute metropolitan values, challenge race prejudice, sexism, could be developed. The newly enabled colonised peoples, roped much against their will into a nascent global economy, understood soon the conditions of capitalism even in its mercantilist form: "To buy it cheap and sell it dear. The hunger for literacy as a means to decode and reinterpret the master-slave narratives of imperialism, compelled colonial regimes to deal with issues such as the provision of universal basic education, basic health care, and universal suffrage (Sen, 2009 and Appiah, 2006). From 1650-1950, imperialism as a political and economic system, attempted to regulate markets in geographic terms. Three hundred years of that experience has demonstrated to both the colonisers, and indeed to the colonised, that capital did not require a geographically located market – that mercantilism was a flawed system. Capitalism does not require nation states, but rather the conditions necessary to move capital to wherever labour is cheapest, and similarly to move populations to the centres of industry. To be sure the industrialised North must similarly deal with the issue of protecting labour, providing a modicum of social welfare, but unlike the developing South, there are longer histories of social regulation and rights-based negotiation between the demands of capital and the need to regulate markets in the interests of employment and welfare.

How is this relevant to the traditions of language teaching, both in terms of pedagogies and also teacher-training? In sections to follow I expand more on the following argument: the methods developed for the

teaching of language in the 19th Century and popularised in the 20th Century remain out of touch with the actual contexts for teaching languages in a multilingual South Africa. Generations of teachers of languages here (and elsewhere) have not been educated concerning the insights to be gained from teaching languages 'bilingually' and even notions of scaffolding as described earlier take as their basis scaffolding of concepts in the target language without reference to the learner's language. The consequences of this approach to education is that educators do not take advantage of the cognitive-development opportunities that are available to bilingual children, and thus the asset of bilingualism becomes a deficit since, as argued earlier, neither the first language, or first additional languages come to be developed adequately. In a developing context, this must surely be a factor in the continued underperformance of South African children when compared to our contemporaries in developed countries where parents and communities can 'make-up' for the deficiencies in State education through reliance on a rich and textured literary history which draws upon all four basic literary skills.

7. Concluding remarks: why so few bilinguals in South Africa?

As alluded to earlier, (and in the fourth and final section of this lecture) I want to explain in more detail why, against the historicised understanding of culture and imperialism, the choices of theories which in turn give rise to teaching methods, are not innocent, or accidental, and serve economic and political agendas that keep our population under-developed and uncompetitive. Imperial empires of the 19th Century supported a typically imperial view of the value of languages. Language learning theory of the previous age (the imperial and war period) was characterised by a focus on language systems, grammars and semiotics (from the Swiss linguist, Saussure 1916). Derived from the typical mode in which the classical languages were taught (with an emphasis on structural analysis and syntax rather than use and application), structural linguistics focused on languages as systems of signs for signifiers. In the 1940-50s when language acquisition theory came into its own (arising from the context of international conflict) and Skinner (1957) and his contemporaries were involved in developing a theory of verbal behaviour, language learning theory took on many of the assumptions of the period. With the world wars, and the development of behaviourism, Communicative Language Theory (Hymes 1971) and the Natural Approach (Krashen 1988) succeeded structural language theory. The new theory of language borrowed from foreign language schools and psychology in which it was assumed that languages are best learnt naturally (a direct reaction to the disengaged and abstracted language learning associated with grammars) in the contexts in which they were spoken. Grammars gave way to communicative activities, speaking and listening, the emphasis was placed on language for daily communication. At the turn of the 20th Century young Americans and Europeans began spending time in foreign climes and the novels of the period: Henry James's *Portrait of a Lady* (1881) and *The Europeans*

(1878), reflect the values of what we now term 'the gap year', afforded by the middle class to provide their children with foreign exposure and preferably access to another language of power. The assumptions of Communicative Language Theory (as one of the most influential and popular approaches to teaching 'other' languages), are worth testing.

If it were true that learning is simply activated when the learner is exposed to comprehensible input how do we explain that the input routinely used in the monolingual non-English classroom does not activate either conscious control over the language, or the ability to use it for purposes beyond the communicative context?

Second, research reviewed by Ellis (1994) demonstrates that the optimal age for language learning is between 1-11 years. In South Africa new languages are typically introduced after that period.

Furthermore, the language competence critical for success at university or in the white-collar workplace does not require communicative competence, but rather competence in the skills of encoding and decoding texts. Universities still spend a great deal on academic development (and specifically literacy) long after learners are best primed and most receptive to language acquisition (Angelil-Carter 1998). It is an expensive and wasteful use of resources.

What are the implications for the South African classroom? For the typical middle class multilingual classroom in South Africa, if the linguists are to be believed then language development should occur very early (not at tertiary, or even secondary level, but rather at primary level). And, in the early childhood years, the teacher needs to know not only how to teach using more than one language, but also what to do when learners encounter difficulties. In the multilingual classroom the bilingual teacher requires training in cognitive linguistics and education linguistics in order to translate the insights gained from cognitive accounts of language development (see Cummins 2000) into instructional design.

And, what about the typical South African monolingual, largely working class and rural setting? Clearly a different set of requirements apply: first, teachers and learners are likely to be exposed to English language use only within the classroom; second, the classroom is primary resource for both acquisition and learning. In such circumstances the use of controlled learning environments (whether language laboratories, or supplemental instruction in a language and parallel medium instruction) is likely to be critical between the ages of 5-11 since it is also during this period that learners in Grade 3 are required

by the national curriculum to make the transition from mother tongue instruction to instruction through the medium of English (*National Curriculum Statement 2002*).⁹

Since very few South African teachers are coordinate bilinguals, and since competence in the L1 is what most teachers specialise in, it seems reasonable that every classroom up to Grade 4 in monolingual contexts in South Africa should be provided with two teachers; or at least one teacher of English together with one teacher assistant specialist in isiZulu, for example. This measure need not be permanent. If a generation of classrooms were thus equipped there would be adequate time for universities to plan, and introduce, new programmes for the 'learning' of bilingualism so that a new generation of student-teachers could begin to adjust pedagogy to suit the context of teaching and learning. This would, as already alluded to, also require the State to allow for a differentiated curriculum that is more context sensitive.

All education manifestos claim to empower the broad population to make use of their talents and skills in a productive economy. All constitutions (*Constitution of South Africa 1996*) claim to put citizens first, but the fact is that global capitalism requires a knowledge elite, and it requires cheap labour. This presents the State with a dilemma: education is needed sufficient to the needs for a skilled labour force, education is also needed for a knowledge elite sufficient to compete globally; education is required for a citizenry capable of serving itself in terms of protection, work, and security in old age. In order to respond to, any or all of these needs, we must begin not with policy, not with the manifesto, or with the teacher union, the political party, but with the learner, and how the child learns best (as Appiah (2005, 109) suggests rights are not enough). If class, as argued by Bernstein (1975), thus remains the single most important factor in how production is controlled, and how education is organised and conveyed, it is ability which provides each person with that unique capacity to exceed expectations, succeed despite the limitations of class, and compete for limited opportunities and resources. In South Africa the marriage between ability and learning has yet to occur in relation to language learning, and the absence of this marriage, or the consequences of the absence, are not beyond the reach for change.

⁹ Widdowson (2001) suggests that, contrary to teaching the second or foreign language as it is used by native speakers, it is precisely its foreignness that needs to be accentuated and taught in relation to the L1. At the very least what we need to be undertaking within the education system in South Africa is the introduction of L1 and L2 specialist teachers together in the classrooms of Grade 4 (ages 10-11) at the least, if not in Grades 1, 2, and 3 (ages 6-9). This suggestion seems contrary to conventional wisdom regarding mother tongue education in South Africa where it has been variously proposed that children should receive instruction in the mother tongue from the earliest ages of schooling and progress towards increasing use of English, or any additional language at later stages, and preferably through the use of that language as a medium of instruction.

References

- Angelil-Carter, S (Ed). 1998. *Access to Success, academic literacy in higher education*. University of Cape Town Press, Cape Town.
- Appiah, K. 2006 *Cosmopolitanism: Ethics in a World of Strangers*. WW. Norton and Company, New York.
- Bakhtin, M. 1986. *Speech Genres and Other Late Essays*. Translated by Vern McGee. Austin, University of Texas.
- Balfour, RJ, de Lange, N. and Khau, 'M. 2012. Rural education and rural realities: The politics and possibilities of rural research in Southern Africa in Naydene de Lange, RJ. Balfour & 'Mathabo Khau (Eds). in Special Issue: Rural education and rural realities: The politics and possibilities of rural research in Southern Africa in *Issue of Perspectives in Education* 30(10), i-ix.
- Balfour, RJ. (Ed). 2010. *Culture, Capital and Representation*. London, Palgrave.
- Balfour, RJ. and Mitchell, C. 2004. Gifting Democracy: English Language Education in South Africa after 1994, in RJ. Balfour and Claudia Mitchell (Eds). in a Special Issue of the *English Quarterly* 36(2) 1-3.
- Balfour, RJ. 2002. Language Curriculum Development at Tertiary Level in South Africa, in *Alternation* in C. Addison (Ed) in a Special Issue on Intercultural Communication. 9(1),143-153.
- Bally, C, and Sechehayé, A. 1916. Cours de linguistique générale with the collaboration of A. Riedlinger, Lausanne and Paris: Payot; trans. W. Baskin, *Course in General Linguistics*, (1977 ed) Glasgow, Fontana/Collins.
- Barnes, L. 1999. Perspectives on Bi-lingualism in the South African Context. in *Alternation* (6)2: 236-247.
- Beacco, Jean-Claude and Myram Byram. 2003. Guide for the development of language education policies in Europe. *From linguistic diversity to plurilingual education*. Strasbourg, Council of Europe (April, 2003). www.coe.int/lang.
- Bergin, C. 2001. The parent-child relationship during beginning reading, in *Journal of Literacy Research*. 33(4), 681-708.
- Ben-Zeev, S. 1977. The influence of bilingualism on cognitive strategy and cognitive development. in *Child Development*, 48:1009-18.
- Bernstein, B. 1975. *Class, Codes and Control*. Routledge and Kegan Paul, London.
- Bialystok, E. 2004. Language and Literacy Development, in TK. Bhatia and WC. Ritchie, (Eds). *The Handbook of Bilingualism*. Malden, Blackwell Press. 577-601.
- Bialystok, E, Majumber, S, and Martin, MM. 2003. Developing phonological awareness: is there a bilingual advantage?, in *Applied Psycholinguistics*, 24:27-44.
- Brannigan, J. 1998. *New Historicism and Cultural Materialism*. New York, St Martins Press.
- Bruck M. and Genesee, F. 1995. Phonological awareness in young second language learners, in *Journal of Child Language*, 22: 307-324.
- Butler, Y. and Hakuta, K. 2004. Bilingualism and Second Language Acquisition in TK. Bhatia, and WC Ritchie, (Eds) 2004. *The Handbook of Bilingualism*. Malden, Blackwell Press.114-145
- Chomsky, N. 1965. *Aspects of the Theory of Syntax*. Cambridge, Mass, MIT Press.
- Constitution of the Republic of South Africa*. 1996. Parliament of the Republic of South Africa.
- Cummins, J 2000. *Language, power, and pedagogy: bilingual children in the crossfire*. Clevedon, UK, Multilingual Matters.
- Defoe, D. 1719. *Robinson Crusoe*. Aladdin Books, Simon and Schuster (2003 ed), New York.
- DeLoache, JS. and Burns, NM. 1994. Early understanding of the representational function of pictures, in *Cognition*. 52, 83-110.
- Donadio, R. 2005. The Irascible Prophet: VS Naipaul at Home. in *The New York Times*. August 7. 2005.
- Dreyfus, HL. and P. Rabinow (Eds). 1982. *Michel Foucault Beyond Structuralism and Hermeneutics*. Brighton, The Harvester Press Ltd.

- Edwards, D. and Christopherson, H. 1988. Bilingualism, literacy, and metalinguistic awareness in preschool children, in *British Journal of Developmental Psychology*, 6: 235-44.
- Eviatar, Z, and Ibrahim, R. 2000. Bilingualism is as bilingual does: metalinguistic abilities of Arabic-speaking children, in *Applied Psycholinguistics*, 21: 451-71.
- Ellis, R. 1994. *The Study of Second Language Acquisition*. Oxford, Oxford University Press.
- Feldmen, C. and Shen M. 1971. Some language-related cognitive advantages of bilingual five-year-olds, in *The Journal of Genetic Psychology*, 118:235-244.
- Foucault, M. 1976. *The History of Sexuality: Volume 1. An Introduction*. Harmondsworth, Penguin Books.
- Foucault, M. 1982. 'The Subject and Power'. *Michel Foucault Beyond Structuralism and Hermeneutics*. HL. Dreyfus and P. Rabinow (Eds). Brighton, The Harvester Press Ltd. 208-226.
- Francis, N. 2002. Literacy, Second Language, and the Development of Metalinguistic Awareness: A Study of Bilingual Children's Perceptions of Focus on Form, in *Linguistics and Education*. 13(3): 373-404.
- Frost, R. 1916. The Road not Taken. in *Mountain Interval*. Henry Holt and Company.
- Eviatar, Z and Ibrahim, R. 2000. Bilingualism is as bilingual does: metalinguistic abilities of Arabic-speaking children, in *Applied Psycholinguistics*, 21:451-71.
- Galambos, SJ. and Goldin-Meadow, S. 1990. The effects of learning two languages on levels of metalinguistic awareness, in *Cognition*, 34:1-56.
- Gazzaniga, M. and Sperry, RW. 1966. Simultaneous double discrimination following brain dissection. in *Psychonomic Science*, 4, 262-263.
- Genesee, F. 1996. Early bilingual development: one language or two? in *Journal of Child Language*, 16, 161-179.
- Geva, E, Wade-Wooley, L, and Shany M. 1997. Development of reading efficiency in first and second language, in *Scientific Studies of Reading*, 1:119-44.
- Goodacre, H. 2010. Colonialism, displacement and cannibalism in early modern economic thought. in Robert J. Balfour (Ed). *Culture, Capital and Representation*. London, Palgrave. 16-34.
- Grosjean, F. 1999. Individual bilingualism. In B. Spolsky (Ed), *Concise Encyclopaedia of Educational Linguistics*. London, Elsevier. 284-90.
- Huang, HS. and Hanley, JR. 1994. Phonological awareness and visual skills in learning to read Chinese and English, in *Cognition*, 54: 73-98.
- Hymes, D. 1971. *On Communicative Competence*. Philadelphia P.A, University of Pennsylvania Press.
- James, H. 1878. *The Europeans*. (1966 ed). London, Penguin Classics.
- James, H. 1881. *Portrait of a Lady*. (2003 ed). London, Penguin Classics.
- Krashen, S. 1988. *Second Language Acquisition and second language learning*. Hemel Hempstead, Herts: Prentice Hall.
- Lambert, WE. 1974. Culture and language as factors in learning and education, in F. Aboud, and R. Meade (Eds). *Cultural factors in learning and education*. Bellingham, WA, Fifth Western Washington Symposium on Learning.
- Lanham, LW. (et al). 1995. *Getting the Message in South Africa: Intelligibility, Readability, Comprehensibility*. Brevitas, Pietermaritzburg.
- Murakami, H. 2009. *19Q4*. London: Harvill Secker. 106.
- Piaget, J. 1929. *The Child's Conception of the World*. New York, Harcourt, Brace, Jovanovich.
- Pinker, S. 1994. *The Language Instinct: The New Science of Language and Mind*. London, Penguin.
- Naipaul, VS. 1979. *A Bend in the River*. Harmondsworth, Penguin Books.
- Reyes, María de la Luz 2001 Unleashing possibilities: Biliteracy in the primary grades. in María de la Luz Reyes and John J. Halcón (Eds), *The Best for our Children: Critical Perspectives on Literacy for Latino Students*, New York and London, Teachers College Press. 96–121.
- Said, E. 1993 *Culture and Imperialism*. Vintage, New York.
- Selinker, L. 1972. Interlanguage, in *International Review of Applied Linguistics*. 10: 209-231.

- Sen, A. 2006. *Identity and Violence: the Illusion of Destiny*. Penguin Books, London.
- Singh, P. 2009. Trawling through language policy: practices and possibilities post-1994, in *Language Learning Journal* in R.J. Balfour (Ed). a Special Issue on Language Policy and Practice in South Africa, Part 1, 37,3: 281-292.
- Skinner, BF. 1957. *Verbal Behaviour*. Acton, MA, Copley Publishing Group.
- Spivak, Gayatri Chakravorty. 1988. Can the Subaltern Speak? in *Marxism and the Interpretation of Culture*. Cary Nelson and Lawrence Grossberg (Eds). Urbana, IL, University of Illinois Press: 271-313.
- Spolsky, B. 2004. *Language Policy*. Cambridge, CUP.
- Strevens, PD. 1965. *Papers in Language and Language Teaching*. London, OUP.
- Swift, J. 1726. *Gulliver's Travels*. (1991 ed) London, Penguin Books.
- Taylor, I, and Taylor, MM, 1990. *Psycholinguistics: Learning and using Language*. Englewood Cliffs, N.J, Prentice Hall. 362.
- Troseth, GL. and DeLoache, JS. 1998. The medium can cure the message: Young children's understanding of film. in *Child Development*. 69: 950-965.
- Vygotsky, L 1962. *Thought and Language*. Cambridge, MIT Press.
- Weinreich, U. 1953. *Languages in Contact*. The Hague, Mouton.
- Widdowson, HG. 1997. E1L, ESL, EFL: Global Issues and Local Interests, in *World Englishes* 16(1): 135-146.
- Widdowson, HG. 2001. The monolingual teaching and bilingual learning of English, in R. Cooper and E. Shohamy and E. Walters (Eds). *New Perspectives and Issues in Educational Language Policy (in honour of Bernard Dov Spolsky)*. Philadelphia, John Benjamins. 7-18.
- Wong-Fillmore, L. 1985. When does teacher-talk work as input? In S. Gass and C. Madden (Eds). *Input in Second-Language Acquisition*. New York, Newbury House. 17-50.
- Wong-Fillmore, L 1994. Second Language Learning in Children: a model of language learning in social context in Bialystok E (Ed). *Language Processing in Bilingual Children*. Cambridge: CUP. 40-60.
- Wright, L. 1995. English in South Africa: Effective Communication and the Policy Debate. In *Getting the Message in South Africa: Intelligibility, Readability, Comprehensibility*. A. Blaquiére, L. Wright and LW. Lanham, (Eds). Brevitas, Pietermaritzburg. 1-8.
- Zaidel, Eran. 1976. Auditory vocabulary of the right hemisphere following brain bisection or hemidecortication, in *Cortex: A Journal Devoted to the Study of the Nervous System and Behavior*, Vol 12(3), 191-211.