

***ORBIS PICTUS TO HYPERTEXT:***

***A QUEST FOR A***

***SELF-DIRECTED MULTIMEDIA GERMAN ACQUISITION PROGRAMME***

by

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## ABSTRACT

This thesis investigates the research area of the formation of a self-directed, interactive multimedia, German acquisition programme, intended for first-year university students. Chapter 1 introduces the thesis by discussing the methodology, which is chiefly historical and analytic; by surveying the relevant literature; and by advancing a rationale for the study. Since the thesis emphasizes a historical dimension, Chapter 2 presents research on the career of the seventeenth-century education reformer Comenius, who is identified as the first systematic theorist of language didactics. His seminal ideas and textbooks connected with language acquisition (LA), which prefigure much in contemporary practice, have been unjustly neglected, and the thesis is intended in part to help correct this situation. Chapter 3 offers research on a historical panorama of landmark theory in linguistics and applied linguistics from Comenius' time to ours, to explore significant ideas that help to shape LA programmes. From the joint perspective of Comenian didactics and modern philosophy of curriculum, Chapter 4 analyses textbooks now or recently in use in a first-year university German course to derive guidelines, principally from the communicative approach, for the proposed German programme. Chapter 5 synthesizes leading ideas gained from study of Comenius and arising from first-hand investigation of later theorists, also it brings in awareness of the possibilities of interactive multimedia, to present an original outline of a self-directed German programme as a contribution to research on second language acquisition. Appendix A presents pictures illustrating the far off intellectual world of Comenius. Appendix B reports on practices and resources at innovative university language centres in Germany and Britain, and surveys some self-directed LA programmes, but chiefly W.E. Mackey's multimedia self-directed English LA version for Francophone children in New Brunswick, to establish the main features of what is being called the post-communicative approach to LA.

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## 1. INTRODUCTION

The intent suffices in a great design.

Propertius

### 1.1. Aim and scope of the thesis

The research area investigated in this thesis is the formation of a self-directed, interactive multimedia, German acquisition programme, to be implemented at the introductory university level. The context for this investigation is the current, world-wide debate over two questions, conducted at both the theoretical and practical level among modern language educators. First, what methods for acquiring second languages produce student satisfaction and commitment? Second, what role can be played by self-directed or, as they are sometimes called, autonomous learning programmes in meeting the goals of students and our society for the acquisition of second languages? The urgency of the debate about these questions for North American educators is highlighted by two factors. There is a sharp decline in numbers in modern language courses as students pass from the stage when enrolment in these courses is mandatory to the stage when they are electives. In some jurisdictions, moreover, government policies are requiring more mandatory second language instruction in schools, when there are insufficiently trained modern language teachers available, and traditional teaching methods for languages seem to be less and less successful as measured by student retention in language courses. For example, in British Columbia second language instruction is now mandatory in grades 5 to 8 (B.C. Ministry of Education News Release, NR28-94, 29 June 1994). At the same time, the following statistics are reported for enrolments in French:

|                       |    |                         |
|-----------------------|----|-------------------------|
| Grade                 | 8  | 100% (mandatory period) |
|                       | 12 | 25% are left            |
| University first year |    | 30% of the above go on  |

(Merzisen, 1994).

Regarding the above problems, the argument of this thesis is twofold. First, with thoughtful attention to the history of linguistics and applied linguistics directed to language acquisition, a sound theoretical and holistic basis for autonomous language acquisition can be established.

Second, review of current practice in the area of autonomous language acquisition in the light of current theory can lead to recommendations for constructing a specific autonomous language acquisition programme.

German has been chosen as the target language for acquisition in the proposed programme, because it is a major European language used by 80 million or more native speakers, and as a second language by many more millions of non-native speakers in the former East bloc countries. As well, most research on second language acquisition (SLA) outside of that conducted in English is found in German. Also, many North Americans have a German background and wish to discover their roots through acquisition of the ancestral tongue. Finally, many English-speakers across the world are drawn to visit German-speaking countries as tourists or business or professional people, and wish to have some knowledge of the language.

First-year university or college students are selected as the clients for the proposed programme as potential leaders in education and society. If their commitment to autonomous language acquisition can be elicited as a result of positive experience, this will influence university careers leading to teaching or other professional responsibilities and impact on schools, as well as policy formation at different levels of government. In addition, as parents



of the future they will help to form another generation's attitudes to language acquisition. Present and coming generations of students are likely to favour the multimedia support for the proposed programme because electronic multimedia are being used more and more for communication and expression, and recent developments in this field offer extensive opportunities for self-learning.

No research on an autonomous multimedia programme for German has been reported in the language acquisition literature reviewed (Nunan, 1988, 1992; Prokop, 1989; Larsen-Freeman and Long, 1991; AILA '93 Amsterdam programm and abstract books; ERIC search). At two conferences in 1993, however, the issues of autonomous language acquisition and multimedia support for language acquisition were separately addressed, and accounts of the transactions are available. In the instance of autonomy, the 1993 AILA programme (pp. 619-30) abstracted the papers presented in Amsterdam at a Special Symposium (No. 70) devoted to Learner Autonomy and Language Learning, and these covered issues highly relevant to the kind of programme envisaged in this thesis for German, including methods for implementing learner autonomy; the relationship between learner strategies and learner autonomy; and the relationship between educational/cognitive psychology and learner autonomy. Arising from the 1993 Symposium, an AILA Scientific Commission was formed, with Leslie Dickinson (Moray House College of Education, Edinburgh) and Anita Wenden (York College, Jamaica, New York) as co-convenors. The intention is to stimulate more research on autonomous language-learner strategies, appropriate curricula for such learners, and methods for evaluating such projects. The 1993 AILA Congress abstracts draw attention to significant LALL research (Holec, 1981, 1987; Oxford, 1990; Narcy, 1991; Wenden, 1991; Dickinson, 1987, 1992). As well, correspondence with a contributor to the Scientific Commission, Lienhard Legenhausen of the University of Münster, has yielded information about an autonomous English acquisition programme in

progress in Karlslunde comprehensive school, in the commune of Greve, near Copenhagen (Legenhausen, 1993, 1994).

The 1993 AILA conference symposium papers and Legenhausen's usage make it clear that "autonomous" and "self-directed" are terms used interchangeably in connection with SLA to mean programmes in which students manage on their own their learning tasks and progress. Also, the role of the teacher or organizer is that of collaborator or resource person. Direction for the programmes comes in the materials from which the second language is to be acquired (see, also, Murray, 1994). This thesis uses the terms "autonomous" and "self-directed" in a similar way. As for multimedia and the first-year university/college context, these are not features of the LALL research literature presently available.

In the instance of interactive multimedia language acquisition support, aspects of this topic are covered in a volume of the papers presented in November 1993 at the LearnTec conference in Karlsruhe on education technology and business education (eds. Beck and Sommer, LearnTec 1993, 1994). One paper from this volume, by Bernd Weidenmann (pp. 57-71): "Lernen mit Multimedia: Der Traum des Comenius" (Learning with multimedia: the dream of Comenius), seems to touch on a central theme in this thesis, namely, that the didactic principles for language acquisition outlined by the seventeenth-century education reformer Comenius can be put into practice through the use of multimedia. Though stimulating, the paper has limitations in treating Comenius' principles and publications in a cursory and unhistorical fashion, and it does not examine the specific ways in which his book, Orbis pictus (1658), anticipates the programming of interactive educational multimedia for autonomous language acquisition. It should be pointed out that this thesis was completed before LearnTec 1993 became available to readers.

In addition to recent attention in conferences to autonomicity and multimedia support in

language acquisition, there is currently available on the market a computerised series of German acquisition programmes in the Rosetta Stone Language Library, issued in 1993 by Fairfield Language Technologies, 400-122 South Main Street, Harrisonburg, Virginia 22801, USA. These programmes can be run on Macintosh or Windows/MPC systems, and they provide voice material, written texts, and pictures. This writer examined through computer use the introductory programme, Deutsch Level Ia, and read the accompanying User's Guide and course outline. These materials represent a step towards what could be accomplished in an interactive multimedia, German acquisition programme, but there is a long way to go to realize the potential indicated by Comenian language didactics and the Orbis pictus. The Rosetta Stone programme does not unfold in a logical sequence of vocabulary or grammar related to the natural process of mother tongue acquisition, is poorly staged, and unimaginatively backed up with audio-visual material. This writer's brief examination of the introductory programme suggests that much more thought about current language research, as well as a deeper understanding of the perspective of Comenius, need to go into the development of multimedia-supported German acquisition. A point to be stressed in criticism of the Rosetta Stone programme is that the voice material is of a poor quality. As a result, case endings, for example, cannot be heard clearly, and grammatical relationships are obscured.

This writer proposes that formal implementation and longitudinal testing of an autonomous German language acquisition programme as outlined in this thesis would capitalize significantly on Comenius' prescient ideas, also make use of recent research on second language acquisition, and in these ways would be a most desirable initiative.

What is offered in this thesis concerning a language acquisition programme should be considered as a Gedankenexperiment, a "thought experiment" of the kind familiar in physics, in which a pattern of experience is anticipated, and effects are associated with specified causes,

in the light of declared theoretical considerations (Oxford English Dictionary, Supplement, Vol. IV, p. 843, citing New Scientist, 14 Jan. 1982, 75, p. 2).

To illuminate these theoretical considerations, the body of the thesis begins by focusing in Chapter 2 on the work of Jan Amos Komenský (1592-1670), the Czech scholar known to the learned world of his time and ours (e.g., at the Karlsruhe LearnTec conference) as Comenius. He has been identified as the first thinker to "conceive a full-scale science of education," and to make this the central part of a "pansophy" or general philosophic system (Piaget, 1967, p. 3). As well, he has been named the first theorist of the didactics of languages (Caravolas, 1994, Vol. I, p. 339). The strengths and weaknesses of his contribution to the theory and practice of language acquisition are examined in the context of an account of his career, emphasizing his ambition to produce a general theory of education and his attempt to create a holistic framework for practical, intellectual, and spiritual enterprise. The Comenian argument is brought out that language acquisition in the last analysis is a necessary part of self-education aimed at the goal of individual transformation conducive to social progress and world peace.

At the practical level, through analysis of specific texts by Comenius, Chapter 2 identifies and criticizes his seminal ideas about language acquisition which include recognition of the importance of the natural phase of learning the mother tongue as a prelude to adding other languages; staged or programmed learning of other languages; the roles of immersion and self-direction; and the usefulness of audio-visual associations and sensory appeal, as well as encyclopedic opportunities offered through technology to make the world the textbook, presented most directly in the Orbis sensualium pictus (1658/1991). The discussion takes up the point that the procedures of the Orbis pictus move the printed book beyond the confines of the codex to the framed visual field, and prepare the way for the electronic book's transference to the screen (Chartier, 1994, pp. 90-1). Comenius' textbook is seen as prefiguring the use of the rapidly-

expanding resources of interactive multimedia, including hypertext, to support autonomous language acquisition.

Chapter 3 examines the gains made by landmark language theorists from Comenius's day to ours. Emphasis is placed on implications for language acquisition. Thus, the work of Noam Chomsky (b. 1928) on transformational grammar (TG), still in progress, is placed in relation to the metaphysical dualism of the rationalist philosopher René Descartes (1596-1650), and to the universal grammar tradition, going back at least to the Port-Royal scholars such as Antoine Arnauld (1612-94). It is argued that though Chomsky himself has deficiencies in historical understanding of the development of linguistics, he has mounted a successful, rationalist challenge to the empirical or behavioural model of language acquisition presented, for example, in the writings of Leonard Bloomfield (1887-1949). Note is taken of Steven Pinker's recent witty and provocative use of Chomsky's theories about universal grammar to explain data that have been accumulated empirically about the acquisition and functioning of languages (The language of instinct: how the mind creates language, 1994). The significance of a rationalist or mentalist, cognitive model, both for language acquisition and cultural support for language acquisition (as proposed by Jerome Bruner, b. 1915), is brought out for the design of actual programmes. Further important implications of the shift of theoretical emphasis from language as behaviour to its systemic structure and cognition are pursued in considering critically the behaviourist proposals of Robert Lado and Larry Selinker about contrastive analysis of languages, and the role error identification should play in language acquisition. Also taken into account are the "monitor" hypothesis of Stephen Krashen and "multidimensional model" of the Zweitspracherwerb Italienischer und Spanischer Arbeiter (ZISA) study group (Clahsen, Meisel, and Pienemann, 1983) which have connections with universal grammar theory.

Other areas of theoretical development with high significance for language acquisition

practice are considered through reviewing the ideas of Wilhelm von Humboldt (1767-1835). This theorist continued the universal grammar tradition in certain directions, and as Pinker points out (1994, p. 84), he enunciated a dictum that anticipates Chomsky's concept of generative grammar: language "makes infinite use of finite media." Humboldt also appreciated the subjective nature of language and its connection with sociability, ideas which can be traced back via the writings of the philosophe Étienne Bonnot de Condillac (1715-80) to the empirical philosophy of John Locke (1632-1704). In this tradition are to be found the roots of psycho- and sociolinguistic modelling of language acquisition. The hypothesis of cultural linguistic control can also be traced back to Humboldt. We encounter this hypothesis either in the weak form of relativism developed by Edward Sapir (1884-1939), or the strong form of determinism formulated by Benjamin L. Whorf (1897-1941). The strong form has recently been severely criticized (Pinker, 1994, pp. 59-65).

Towards the end of this chapter, the organicism of August Schleicher (1828-68) is discussed as a negative example of linguistic theorizing. The reason for this is that he drew racist implications from an attempt to apply Darwinian evolutionary thinking to language development. Next, the theoretical contributions of Schleicher's antagonist Michel Bréal (1832-1915) and those of the more widely-known Ferdinand de Saussure (1857-1913) are reviewed, to elucidate the emergence of the modern concept of language as a system of signs whose meaning is determined by collective behaviour.

This writer concludes, however, from the review of theorists coming after Comenius, that their insights into language structure and transfer, arrived at through intense specialization, have created a state of affairs well described as the "Krise der Selbstverständnisse" (crisis of self-understanding) of foreign language didactics due to its "endlose Klagengeschichte" (endless history of conflict) (Legenhausen, 1993, p. 1). The present writer believes that a resolution to

this crisis could come from study of the possibilities of autonomous language acquisition, conceived within the kind of holistic framework aimed at by Comenius.

Chapter 4 follows with a study in analytic didactics, a subject whose procedures were codified by Comenius (Jelinek, 1953). This study bears on the successes and shortcomings of three current teacher-centred programmes in German. Their chief theoretical and practical features are detailed as reflected in associated textbooks, from the perspectives of transmission, transaction, and transformation philosophies of education (Miller and Sellar, 1990). This writer argues that the shortcomings of these textbooks point to the educational need for an autonomous acquisition programme.

Chapter 5 offers an outline of the salient features of the proposed autonomous programme intended to guide eventual development. This programme aims at incorporating some of the leading elements of, or implicit in, Comenian language didactics. Second language acquisition should be linked to leading features of the acquisition of the mother tongue. The principle of carefully staged learning should be upheld. There should be reliance on the play/pleasure principle to motivate learners. Audio-visual prompting and sensory appeal should be employed. This should extend to interactive multimedia presentations, and use of the "electronic highway" to recapture the encyclopedic technique of using the world as textbook. For the proposed programme, the insights of language theorists and applied linguists are accepted within a holistic framework conceptualized on the basis that the whole person is involved in language acquisition, and its goal is individual fulfilment and social progress.

Two appendices are presented. A uses illustrations to explore and help recapture the intellectual world of Comenius which has been lost to us by the post-Cartesian fragmenting of disciplines. B discusses the personal experience of the writer in visiting certain language centres in Europe which support the delivery of autonomous multimedia language programmes. This

appendix also reviews central features of current autonomous language acquisition programmes, principally William F. Mackey's New Brunswick model of English for Francophone children, and Lienhard Legenhausen's English programme in a Danish comprehensive school.

### 1.2. Research question

This thesis presents research on the career of Comenius and his education reforms in relation to present-day needs. Further, it investigates past and current linguistics theory and applied linguistics theories with regard to problems of German acquisition. It also analyses, from the joint perspective of Comenian didactics and modern philosophy of curriculum, representative contemporary textbooks and curricula for acquiring German. Throughout, the following two-part research question has been addressed:

- a. what theoretical and practical features would contribute to the formation of a self-directed language acquisition programme for German that students would deem successful in terms of their goals;
- b. how should such a programme be delivered using interactive multimedia?

Because the research in this thesis can be formulated in this way, it is identified in the title as a quest which, as the OED defines the word, means "any inquiry or investigation made in order to discover some fact" (I.3.), or a "search or pursuit, made in order to find or obtain something" (II.4).

### 1.3. Significance of the study

This writer proposes that the envisaged German programme should be delivered through a university or community college agency. Such a programme should be constructed with a view to meeting the goals of a wide range of students, including part-time students from the



ranks of workers and mothers unable to make the time commitment for regularly scheduled classes, also for those who prefer to engage in autonomous learning using multimedia resources. There are also cogent theoretical reasons for adopting an autonomous programme, principally that its discipline teaches learners how to learn on their own as a precondition for education defined as a process of positive self-transformation.

It should be possible for modern language departments and education administrators to estimate from this study if the proposed programme or type of programme would be a useful complement to regular classroom teaching. Educators should also be able to estimate if the proposed programme would be capable of providing a pool of students with sufficient competence in German to pursue higher level instruction and meet career goals sustained by other programmes. Similarly, open learning and distance learning institutes should be able to judge if such a programme or its analogues could be added to their established offerings. In addition, experts in the latest interactive multimedia technology should be able to determine what opportunities there are for providing electronic learning resources and support.

This study should make students, faculty, administrators, education planners, and the interested public aware of the intellectual underpinnings of self-directed language acquisition and the essential features of a programme specifically designed for the German language.

#### 1.4. Methodology

The method in this thesis has been, first, to use historical investigation and analysis to investigate layers of seminal ideas about the nature of language and its transfer or acquisition. The sources used in this investigation were critical editions of texts by Comenius and his successors among educators, linguists, and applied linguists. Reputable commentaries on their work were also consulted. On this basis, the salient features of the career and thought of

Comenius have been established. A historical panorama has been presented of other scholars who have contributed to language education reform and language acquisition theory. Significant second language acquisition issues of continuing relevance have been highlighted. In connection with the intellectual history involved in the investigation, perspectives have been adopted coming from critical theory debates and the emergence of the "new historicism," which enable researchers to exercise caution about cultural presuppositions and ideological bias (LaCapra and Kaplan, 1982; ed. Veenser, 1989).

Second, this writer has investigated the Comenian principles of analytic didactics (Comenius/Jelinek, 1953), as well as leading current research in language acquisition practice (Larsen-Freeman and Long, 1991; Johnson, D.M., 1992; Ellis, R., 1994). Insights from these sources have been applied in Chapter 4, in the assessment of three current (or recently-adopted) German textbooks used in introductory courses at the University of British Columbia. The philosophies of education underlying these textbooks have identified according to the categories specified by John P. Miller and Wayne Seller in Curricula: perspectives and practice (1990).

Third, information concerning current self-directed language programmes and the operation of language centres with innovative approaches and new technological support has been critically reviewed.

From this research, the value, scope, and efficacy of self-directed language acquisition using interactive multimedia support have been established, and the salient points of didactics have been determined for incorporation in a German acquisition programme.

### 1.5. Relevant research

Note has been taken of current thinking about the design of research on language learning in David Nunan's recent survey: Research methods in language learning (1992), but it did not

provide an appropriate model for the project of this thesis. Diane Larsen-Freeman and Michael H. Long in their well-organized compendium: An introduction to second language acquisition [SLA] research (1991, p. 12), present an outline of a "Qualitative Paradigm" for research, and this allows for the possibility of "Phenomenologism and verstehen: 'concerned with understanding human behaviour from the actor's own frame of reference'," which has some affinity with the procedures of this thesis, but they do not go into this in any detail, nor do they take up the topic of autonomous language programmes, though their coverage of SLA theoretical and practical studies otherwise proved extremely helpful.

An authoritative complete edition of Comenius' writings in Latin and Czech: Johannis Amos Comenii opera omnia / Dílo Jana Amose Komenského (referred to as DJAK), supervised by the Czechoslovak Academy of Sciences, has been in progress since 1969, and fifteen of the planned fifty volumes have appeared to date. It is the best guide to the textual and bibliographic history of the books presented. A concise recension of new biographical and analytic work on Comenius, taking note of research by Czech and Slovak scholars, is to be found in Jaroslav Pánek's book, completed in 1989: Comenius: teacher of nations (1991). A reasonably complete listing of post-World War Two Comenian scholarship is to be found in Zdeněk Pokorný, Bibliografie knižních komenian 1945-1990 (1992), which was prepared to help celebrate the 400th anniversary of Comenius' birth, but this anniversary in turn stimulated a vast outpouring of articles and books now being published.

So far, the most informative account of the publication of Comenius' ideas about education and their linkage to his pansophic project is Vladimir Jelinek's introductory material to his English translation of the tenth chapter of the Linguarum methodus novissima (1649, 1657). This was entitled the Analytical Didactic in 1874 by the Czech translator, F.J. Zoubek, when he published the chapter as a separate work. It has to be pointed out that as a proponent of

empiricism, Jelinek and is highly critical of Comenius' holistic way of thinking, and regards his religious outlook as one that gives rise to prejudice.

An additional drawback is the fact that Jelinek did not have full access to the manuscript texts from the last period of Comenius's career. These texts were discovered in 1935 by Dimitri Cyzevskij, in the archives of the Francken-Stiftung in Halle. These texts completed a seven-part work: De rerum humanorum emedatione consultatio catholica (General deliberation concerning the reform of human affairs). This whole work in Latin was published in 1966 by the Czechoslovak Academy of Sciences, and the work of the editors, also of Czech and German translators of sections, is reflected in J.E. Sadler's useful study, J.A. Comenius and the concept of universal education (1966). Klaus Schaller has worked extensively on the Consultatio, and has incorporated his findings in a number of translations into German and analytic studies. The book with the most useful background material is Schaller's study, Die Pädagogik des Johann Amos Comenius und die Anfänge des pädagogischen Realismus in 17.Jahrhundert (1967). The veteran Scottish scholar, A.M.O. Dobbie, has now translated into English six parts of the Consultatio as follows: Panegersia (Universal awakening, 1990); Panaugia (Universal light, 1987); Pampaedia (Universal education, 1986); Panglottia (Universal language, 1989); Panorthosia (Universal reform--chs. 19-26, 1993); and Pannuthesia (Universal warning, n.d.) These sources allow us to recapture Comenius' holistic thinking, and to see how his comprehensive ideas about education and language can be connected with our contemporary ecological concerns, a topic covered by Mackey's paper to the Colloque International Coménius held at the Université de Montréal in June 1992: "La philosophie et la linguistique de Coménius dans le cadre des idées écologiques de notre siècle" (Mackey, 1992a).

The most accessible, extended study of Comenius' ideas about teaching languages is a work in French by the President of the Canadian Society of Comenian Studies, Jean-Antoine

Caravolas: Le Gutenberg de la didacographie ou Coménius et l'enseignement des langues (1984). He gave a summary in English of his more recent views in an article, "Comenius and the theory of language teaching," in the issue of Acta Comeniana: International Review of Comenius Studies, 10 (1993), which commemorates the 400th anniversary of Comenius' birth. Caravolas has just published (June 1994) a two-volume work in French: La didactique des langues (Montréal: Les Presses de l'Université de Montréal, 1994), in which the first volume is devoted to a "Précis d'histoire I, 1450-1700," and the last chapter entitled, "Coménius--premier théoricien des langues," gives a precise and well-documented account of its subject.

Recent research on "Language acquisition and language learning" is well synthesized by Claire J. Kramsch (1992), and language theory and acquisition/learning practice are similarly well served by David Crystal's Cambridge encyclopedia of language (1992 reprint). Additional sources with further ramifications of relevant theory and research data are Donna M. Johnsons' Approaches to research in second language learning (1992) and The study of second language acquisition (1994) by Rod Ellis. Crystal mentions Comenius only in connection with the movement to devise an artificial language that would be a means of international communication (p. 352), and the others confine themselves to contemporary theorists and researchers.

Autonomous language acquisition research should be much stimulated by the launching of the AILA Scientific Commission mentioned at the beginning of this chapter for example. Past neglect is suggested by the absence of the topic from Bernhard Kettemann and Wilfried Wieden (eds.): Current issues in European second language acquisition research (1993), and Wil Knibbeler's otherwise useful survey material in The explorative-creative way: implementation of a humanistic teaching model (1989).

The greatest inspiration to work on an autonomous German acquisition programme came to this writer from participating in Mackey's 1992 UBC seminar on self-directed language

acquisition, in which he described his New Brunswick immersion project for helping Francophone children acquire English (Lightbown, 1989; Forsyth, 1990, 1993, 1994, and Lightbown and Halter, 1989; Mackey, 1991b, Murray, 1994).

For a German perspective on second language acquisition, the most helpful summations of research are to be found in Wolfgang Klein's book, Zweitspracherwerb: eine Einführung (1987); and in a study by Klaus Vogel, Lernersprache: linguistische und psycholinguistische Grundfragen zu ihrer Erforschung (1990). The varying social situations of language learners/acquirers explored in these two books are important in conceptualizing the staging of second language inputs.

## 1.6 Coda

The goal of this thesis, namely, forming a German acquisition programme that requires autonomous learning with the support of interactive multimedia, will have been brought within reach if the research literature surveyed in the previous section has played its proper role. Its assembly and digestion are intended to help uncover the theoretical and practical considerations that should guide the choice of the content of the programme and viable methods for delivering it. The Mackey programme in New Brunswick, operating since 1985 (cited above), also the Legenhausen one in Denmark (begun in 1992), perhaps offer the best models for what is outlined here.

Across Canada at least since 1965, however, immersion programmes have been in operation to achieve English-French bilingualism, with impressive results in the high levels attained of comprehension of the second language (Swain, 1981; Genesee, 1983). In part, Mackey was responding to the success of Canadian language immersion teaching/learning in designing his programme (1991b, pp. 242-3). Typically, these immersion programmes provide for children

large amounts of comprehensible second language input in teaching all or most subjects across the curriculum in the target language in the early elementary grades, and then introduce more teaching in the native language in the higher grades to bring up the native-speaker skills (Lambert and Tucker, 1972). Mackey had to deal with English regarded as a single subject and given a limited amount of time in the curriculum, but he could arrange for large amounts of comprehensible input in English in the time available and extensive use of multimedia. Moreover, the New Brunswick programme has features that have been identified as desirable changes in immersion approaches: a movement towards less passivity in classrooms and more student-centred learning (Carey, 1984, 1991, 1993). Mackey's requirement of self-direction encourages the students to take an active role in their education and to develop their higher-order thinking skills (Forsyth, 1990, pp. 27-8). As will be seen in Chapter 5, these features are suggested for inclusion in the proposed German acquisition programme, in which it is also proposed to explore elements of the language didactics of Comenius and his holistic concept of education.

## 2. THE VISION OF COMENIUS AS EDUCATION REFORMER

It is from those who have suffered the sentence of history -- subjugation, domination, diaspora, displacement -- that we learn our most enduring lessons for living and thinking.

Homi K. Bhabha



### 2.1. Comenius in his time and ours

When Comenius was dying in 1670, it must have seemed to him as an acquirer of many languages that he had failed in the enterprises of his career dearest to his heart. He was the last bishop of the Community of Brethren to be consecrated in his Czech homeland. This was the small religious group (5-10%) with the loftiest ideals and strictest discipline among the overwhelming majority (90%) of the population of Czechs that was Protestant in his youth. The Community was suppressed by the Habsburg autocracy and supplanted in Bohemia and Moravia by Jesuits zealously enforcing adherence to rigid counter-reformation Catholicism supervised



from Rome. The exiled remnants of the Brethren in Poland, Hungary, and Brandenburg felt themselves to be leaderless and betrayed. The Czech language which Comenius loved and had illuminated with his writings was marginalized in the homeland, where German became the vehicle for government and high culture until the nineteenth century. The schools Comenius taught in had either been destroyed in the ravages of the Thirty Years War, or survived in a state far removed from upholding the enlightened institutional arrangements he had promoted. A collected edition of his works (DOO: Appendix A, 1) sponsored by the city government of Amsterdam with the date 1657 had appeared early in 1658, but it was incomplete, and many of his writings were lost and scattered in places remote from the major printing presses of Europe. The pansophia he had projected in his confident maturity, a unified science that would connect humanistic and all other branches of learning with regard to spiritual insight and moral wisdom, had been only partially realized, and only fragments of these parts were in print. In making war and peace based on vested interests, the great powers of Europe had not listened to his pleas for the rights of minorities, and for the creation of instruments for securing universal education (including extension to females and the handicapped), scientific cooperation, religious toleration, and international security, much less his call that humanity act as a family which should seek to live in harmony with nature rather than divide into predators and victims ceaselessly oppressing each other and despoiling nature.

The one area where he had been successful and had attracted enduring patronage, the writing of language and other textbooks, in his eyes had been a distraction from his ambitious theological and philosophical projects, within which education formed only a part of his agenda. Yet, such books as his Informatorium školy materské (composition in Czech: 1628(?)-31), which he translated into German (1633) and Latin (for DOO, 1657), and which appeared in English as School of infancy (1641), also the Janua linguarum reserata (1631), appearing in English as

Porta linguarum trilinguis, the gate of tongues unlocked and opened (1631), made an impact on seventeenth-century classrooms by changing attitudes to early schooling, the teaching of vernacular languages to children, and setting realizable goals for acquiring Latin, still used as the language of international communication in the century after Comenius's lifetime. The Janua linguarum reserata was found as a textbook as far afield as New England, and one copy was owned by an Indian student Joel Jacoomis who was a student at Harvard in 1665, along with a friend named Caleb Cheeshahteumuck (Odlozilik, 1942, p. 55). Comenius would have been pleased to learn this fact. He had expressed the hope in his Linguarum methodus novissima (1648, ch. xxviii) that a gifted Indian youth would learn Latin and begin a literary tradition for his people, that is, one that would connect their artistic expression with the world's through the medium of writing in Latin (Young, 1929; Jelinek, 1953, p. 87). Above all, Comenius wished to see education extended to all humanity, so that everyone regardless of sex or race or creed could study God's revelation in three books: the "book of nature, the book of the mind, and the book of Holy Writ" (Pampaedia, Dobbie, 1986, p. 30; Jelinek, 1953, p. 12), and he wrote the Janua linguarum reserata to this end.

The Linguarum methodus novissima also gained firm adherents among contemporary teachers (Jelinek, 1953, pp. 32-3), and of the supporting textbooks, the Orbis sensualium pictus (1658) has had a continuing polyglot publication history into our century, extending to most European languages and Japanese (DJAK, 1970, Vol. 17, pp. 276-89), suggesting it became an invaluable aid to teaching languages (Dobbie, 1986, p. 12). Moreover, when UNESCO was created after the second world war to provide for international collaboration in education, science, and culture, Comenius was honoured as one of its founding spirits (Piaget, 1967, p. 29).

To be sure, there are shortcomings obvious enough today in Comenius' thinking and

expression. His biblical orientation limited his mental horizons, as in the case of his seeming lack of curiosity about the new scientific cosmology of Copernicus and Galileo. At times, he was too credulous about the claims of false prophets, especially when despair over his personal fate and that of his fellow Protestants during the Thirty Years War drove him to hope for signs of Christ's return and the commencement of the millennium. Also, he wrote at great length about his concerns, endlessly dividing and subdividing his topics, often in what seem banal ways and at wearisome length. Nevertheless, enough wisdom remains in his writings about the human race's nature, the world we share, and our need to educate ourselves, which amid our predicaments we neglect at our peril. It is in this spirit, accordingly, that the thesis proceeds to review Comenius' career and leading ideas. The chief intention is to see what his legacy was, specifically, for autonomous language acquisition, and why it is, generally, that his leading education concepts in a pansophic framework suffered neglect for so long and now assume increasing importance.

## 2.2. Education of Comenius

Jan Komenský was born in 1592 in southeastern Moravia close to the Hungarian border, in or near the town of Uherský Brod (some authorities name the village of Nivnice), where his father was a prosperous miller. Both parents and two sisters had died by 1604, probably from plague, and the next year insurgents from Hungary fighting against Habsburg troops torched the small town of Strážnice where he was staying with relatives. Plunged in this fashion into the labyrinth of the world, his metaphor for the vicissitudes of a dangerous existence, he sought a way out through education at the grammar school in Přerov and eventual entry into the "universal priesthood" of the Community of Brethren. In origin, this Community went back to the Hussite movement of the early fifteenth century, which had anticipated most features of the

### Lutheran Reformation.

Though the religious viewpoint was enlightened, instruction at the Přerov grammar school was carried out in Latin in the punitive way only too common at this time. Comenius later castigated contemporary schools as barbarous: "terrors for boys and shambles for their intellects." He wrote of five, ten, or more years being spent on matters that could have been mastered in one, and of what could have been "gently instilled into the intellect," being "violently impressed upon it, nay rather stuffed and flogged into it" (Comenius, Great didactic, 1896, pp. 229-30). Further, he condemned the obscurity and perplexity of the methods of teaching, when plainness and lucidity could have been the hallmarks. His sad experiences drove him towards his later educational reforms, including the development of new curricula for language teaching. Strong family bonds were encouraged by the Community (Appendix A, 2), in which women had a prominent role as bearers of moral and religious values, also care of the handicapped was encouraged, and these features of Comenius' formative years play a part in the ideal of universal education expressed in his Czech Didaktika (1627-30). There is every indication in his writings that he valued the formative effect of a loving family on children, and he showed respect and love to the children he taught, also he counselled parents and teachers to treat their charges with love and respect and help them grow in virtue and wisdom.

To complete his studies, from 1611-1613, he went on to the advanced Calvinist high school in Herborn (near Frankfurt), and then to the University of Heidelberg. In 1613, to further his education, he travelled to the United Dutch Provinces, then vying with England among Protestant countries for commercial and cultural leadership. Residence in Amsterdam provided him with an example of the peaceful rule of oligarchic republican government based on the consent of the governed, which became a model for his later schemes of world government. About the year 1613, he began his career as a man of letters with work towards the creation of

a multipurpose Theatrum, a "theatre" or "sphere" of knowledge. We have details of three titles: Theatrum sanctae scripturae, Theatrum universitatis rerum (DJAK Vol. I), and Thesaurus linguae Bohemicae. Comenius met in Germany and among the Dutch people vigorous post-Reformation advances in many sectors of knowledge, including, theology, philosophy, and proto-science. He was fired with the ambition to make available to Czech speakers in their own language the exciting new ideas of the times, hence his production of a Bohemian thesaurus (Sadler, 1966, p. 34; Dieterich, 1991, pp. 22-3). Such an ambition is an attractive and inspiring one. It encourages thought about methods for helping our contemporaries to acquire German, and so gain in their turn a direct window on an unknown or imperfectly known cultural scene.

His teachers at Herborn (who included the millenarian encyclopedist J.H. Alsted and the Biblical scholar, Johannes Piscator) and at Heidelberg (principally the theologian David Pareus) aroused his interest in irenics (theology stressing points of agreement among Christians with a view to their unification), ecumenicism, philosophy, and science, putting him in touch with the works of contemporaries such as Tommaso Campanella and Francis Bacon (Penrath, 1985; Dienst, 1985). Campanella's City of the sun (1602, 1623) encouraged Comenius' visionary, utopian thinking, as did Bacon's Advancement of learning (1605), which also introduced distinction between two kinds of grammar, crucial for the emergence of the rationalist or mentalist tradition of language analysis, of which so much has been made by Chomsky. This holds we should distinguish between "popular" grammar, setting out the prescriptions for particular languages; and "philosophical" grammar, applying to all languages, in Bacon's phrase, "examining the power and nature of words, as they are the footsteps and prints of reason" (Bacon, 1605, II.xvi.4: Aarsleff, 1982, p. 105). Bacon also stressed the importance of right method in pedagogy, as the route for cutting short tedium in learning, and attention to this issue

became an important part of Comenius' career.

### 2.3. Comenius' encounter with Descartes and the formation of his pedagogic goals

Descartes famously took up methodology as a central feature of the reformulation of philosophy in the Discourse on the method of rightly conducting the reason and seeking truth in the sciences (1637). Sharing Descartes' preoccupation with method, Comenius sought a personal encounter with him in 1642, at Endegeest, near Leiden in the Netherlands. It was a friendly meeting, in which Descartes "endeavoured to explain . . . the secrets of his philosophy," and Comenius defended his conviction, "that all human knowledge, which is obtained by thought and reflection alone, is imperfect and defective." Comenius wished to include the teaching of the "heart" (emotional knowledge) and of the spirit in his holistic approach. The exchanges ended with Descartes saying, "I do not go beyond philosophy; in me there will be a part of the whole, which is to be found in you" (Rood, 1970, p. 134). The reference was to the fruits of Comenius' education and holistic outlook, his project, to be discussed below, of aspiring to pansophia, a wisdom that would unify spiritual insight and philosophy derived from the mind and senses. (Though of classical Greek origin, the word "holistic" used here is modern, derived from the title of Jan Smuts's book, Holism and evolution, 1926, but the concept of appreciating the wholeness of things is ancient and appears where Comenius found it, in Neoplatonism: see Wall, 1994, pp. 90-1). Descartes stuck to his metaphysical dualism of mind and body as the key to scientific knowledge. Comenius came to see this as reductive, publishing a book in 1659 rejecting Descartes' teaching about a dead, mechanistic world: Cartesius cum sua naturali Philosophia a Mechanicis eversus; and finally denouncing Cartesianism as a "cancerous growth in philosophy" (Clamores Eliae, s.B.9: composed 1665-70). In a long career as a writer, Comenius sought in his pansophic works to

offer a countervailing, holistic vision of a living universe in which human language is the key to understanding the interconnection of the vital constituent forms. The best overview of this is provided by Franz Hofman's selection of texts and commentary: Jan Amos Comenius, Allweisheit: Schriften zur Reform der Wissenschaften, der Bildung und des gesellschaftlichen Lebens (1992).

#### 2.4. Anticipation of "transformation" philosophy of curriculum

It can be argued that this vision anticipates in certain important respects what John P. Miller and Wayne Sellar have recently called the "transformation" philosophy of curriculum (1990, p. 8). The reason for this anticipation is that Comenius was inspired by Neoplatonism as well as the ideals of primitive Christianity (Schaller, 1979), and these are ultimate sources for the ideas comprising "transformationism" in education. As to the forms of the anticipation, Comenius in general aimed at imparting skills that foster personal growth and social improvement; he wished to promote through education feelings of harmony with the environment rather than control of it in the Baconian and Cartesian tradition. Also, he strove to inculcate reverence towards the environment as divinely created, a viewpoint which has its champions today concerned about the ecological threat arising from the demands of a greedy, consumer-oriented society (Sheldrake, 1992).

Miller and Sellar trace what they call the "romantic element" in the transformation orientation back only to Rousseau, and seem unaware of this thinker's heritage of Protestant and classical thought which was shared by Comenius. Stephen Toulmin argues in Cosmopolis: the hidden agenda of modernity (1990) that the Cartesian-Newtonian world view is bankrupt, to be linked to patriarchal despotism, also disastrous attitudes to the environment, and that we should revive the undogmatic, realistic wisdom of the early modern humanists, as found, for example,

in the Praise of Folly (1509) of Desiderius Erasmus (c.1469-1536) and the Essays (1588, 1595 posthumous edn.) of Michel de Montaigne (1533-92). If this is correct, a case can be made for adding to this band Comenius, the challenger of Descartes' reductive metaphysics, and a pervasively humanistic thinker concerned with the universal education needed to equip our race to live responsibly in a living universe.

## 2.5. Rosicrucian Enlightenment, pansophia, and Comenius' later career

At Heidelberg, Comenius encountered what Frances Yates has called the "Rosicrucian Enlightenment." This was an intellectual movement aspiring to achieve universal knowledge, including mastery of alchemy, as a prelude to launching a new age of social harmony and fulfilment of human potential. Politically speaking, the hopes of the Rosicrucian cult members or sympathizers focused on Frederick, Elector of the Palatine (Rhine) who was in close touch with Heidelberg professors such as Pareus. His marvellous palace garden above the town and Neckar valley (Appendix A, 3), combining geometrical shapes made of fragrant and beautiful plants, musical fountains, and sculptures of mythological figures was a symbol to intelligent observers such as Comenius of human art revealing the living art of nature (Yates, 1986, pp. 11-12).

Comenius returned to the Czech lands in 1614 and became a teacher, then rector at the grammar school at Přerov. In 1616 he was ordained a priest of the Community of Brethren and he married two years later. In 1618 he became a teacher and minister in Fulnek, another small town near the Silesian-Moravian border. During these years he laid the foundations for an encyclopedic knowledge to develop what he could formulate now as a system of pansophia, universally applicable and organically connected wisdom. This was based on a Neoplatonic philosophy which was holistic in that it insisted on exploring always the connections between



the physical and the spiritual appearances of nature. Its chief procedure was to combine explanatory principles about the little world of humanity with a concept of what it mirrored, the system of the large and similarly living world of the cosmos. Comenius obtained further hints of this macro-microcosmic philosophy from the Rosicrucian writer Johann Valentin Andreae. Writings embodying the pansophic philosophy were a Praeludia (1637) and a Prodromus [Forerunner] pansophiae (1639), then the Dilucidatio [Systematic interpretation] (1639) and Pansophiae diatyposis [Vivid description] (1643). A translation of the Prodromus made by Samuel Hartlib and published as A reformation of schooles (1642) introduced Comenius' pansophic programme to English readers. Comenius completed his pansophic writings with a work entitled, De rerum humanorum emendatione consultatio catholica (General deliberation concerning the reform of human affairs), written between 1643 and 1670, whose parts are only now becoming available in English through the translations of A.M.O. Dobbie.

Comenius' difficulties in completing his pansophic scheme and, as it happened, the challenges, opportunities, and frustrations connected with writing his books about language education, arose from the cataclysmic upheavals of the Thirty Years War fought between Protestants and Catholics in the German and Czech lands with interventions by Denmark, Sweden, and France. The Protestant Elector Frederick was brought from Heidelberg in 1619 to be King of Bohemia, but a violent Catholic reaction led to his crushing defeat at the battle of the White Mountain near Prague the next year, and this was followed by the suppression of the national Protestant religion and the Czech language. Comenius was driven into underground resistance to the Habsburgs, and finally in 1628 into a life of exile and wandering in the course of which the books he collected and his manuscripts were burned twice, at Fulnek in 1623 and at Leszno in Poland in 1656. While ministering to his fellow religious and political exiles, he made a living teaching Latin and acquired fame across Europe through publishing textbooks on

language acquisition and education. This was the era when the grammar school (that is, the site where Latin grammar was taught) achieved the height of its importance across Europe. In the Protestant countries especially, the middle classes strongly supported and richly endowed this institution, then as now hoping education would prepare their young people for successful careers (for English evidence, see Davies, 1949, pp. 347-50). In this context, some of Comenius' ideas about education reform and more so his Latin textbooks met a favourable response.

Comenius' lifelong exile (Appendix A, 4) took him to communities speaking many vernaculars, though everywhere Latin was required for membership in the intelligentsia. From 1628 until 1641, he remained in Leszno, Poland, where there was a mixed population of Poles, Germans, and Czechs. His practical teaching experience at the Gymnasium illustre there led to his reflections on general education reform and the reconstruction of his own country, which broadened into ideas for religious reconciliation and world peace. From 1641 to 1642 he travelled to London, Holland, and Sweden, at a high point in his career, to further the cause of education and social reform in these Protestant countries, and he settled from 1642 to 1648 at Elbing near Danzig, principally a German-speaking community, but then under Swedish control. He returned to Leszno in 1648 for two years, and then was persuaded to teach in a school at Sárospatak in Hungary from 1650 to 1654. Two final years at Leszno came to an end when this town was burned down by Polish troops in 1656, in the course of the Swedish-Polish war. Thereafter Comenius found a haven in Amsterdam where he died in 1670. He was buried in the Walloon church in the nearby village of Naarden, where his life's work is commemorated in a museum. The history of his time sentenced him as a member of a persecuted minority to subjugation, wandering, and exile, but his best lessons surely have taught humanity no ideal save universal education is worth upholding, and that world peace must be on our consciences.

## 2.6. Educational reform and language acquisition

At Leszno, Comenius was a spiritual and social leader as the last consecrated bishop of the Community of Brethren, now proscribed in the homeland. He saw his compatriots as a "faithful remnant," who were to be prepared for the new age to come (Synopsis historica persecutionum ecclesiae Bohemicae and Haggaeus redivivus, both written in 1632) and he was able to pass on to founders of the Moravian Church in the next century the link of apostolic succession which extended back at least to the Waldenses. Though his personal hopes came to nothing for the inauguration of a new age for Czechs and Slovaks under the rule of such Protestant commanders as Cromwell, Gustavus Adolphus, and Charles X of Sweden, Comenius applied himself tirelessly to schemes for world peace, culminating in the appeal to the great powers, Angelus pacis, published in 1667. Meantime, he was writing or re-writing books on educational reform that drew attention across Europe, such as the Janua linguarum and the Linguarum methoodus novissima.

His functional, communicative view of the acquisition of languages was expressed in a visionary and utopian book in which he came to terms with the destruction of Fulnek, through allegoric elaboration of the labyrinthine metaphor that haunted him as expressive of the human condition (Appendix A, 5). This work, The labyrinth of the world and the paradise of the heart (1623, 1631), has been hailed by his English translator, Count Lutzow, as the Czech Pilgrim's progress. Here Comenius wrote:

Languages . . . give not wisdom, but have that purpose only that by means of them we can converse with many and diverse inhabitants of the terrestrial globe, be they alive or dead. Therefore, not he who . . . can speak many languages, but he who can speak of useful things, is learned.

Comenius' point here about languages is one well understood by contemporary proponents of

immersion education who argue that language acquisition should be focused on communication and meaning not form. Comenius exemplifies this viewpoint through using language to communicate a revelation of the "paradise of the heart." This is the ideal state that is achieved, according to Comenius, through withdrawal from the "giddiness and confusion" of the immediate, outward world, and meditation on the divine spirit within us whose gifts are peace and joy (Rusk, 1962, pp. 88-9). Comenius' biblical imagery for manifestations of religious life can be accepted as what was foremost in the minds and imaginations shaped by his era and culture. What he has to communicate to us is a holistic vision, larger than any doctrinal scheme, of the spiritual side of life that must be nourished in truly fulfilling education. Comenius' most sweeping ideas for the reform of school organisation and the curriculum, including the place of languages, are presented in The great didactic (1627-30, first version in Czech; published in Latin, DOO 1657; English trans. 1896). The subtitle reads, in part, as follows:

A certain Inducement to found such Schools in all the Parishes, Towns, and Villages of every Christian Kingdom, that the entire Youth of both Sexes, none being excepted, shall Quickly, Pleasantly, and Thoroughly become learned in the Sciences, pure in Morals, trained to Piety, and in this manner instructed in all things necessary for the present and for the future life.

The sympathetic, humanistic vision presented here is important because it seems to spring from a deep desire to cast down doctrinal barriers in religion and promote universal peace. As for his advocacy of the same education for men and women, Comenius is probably following the lead of Plato (428-347 B.C.), Aristotle (384-322 B.C.), and Plutarch (A.D. c.50-c.120). Plato had also proposed that women should share with men in becoming Guardians of the Republic (1937, Vol. 1, pp. 713, 718). The Stoics and Neoplatonists, whom Comenius

admired, supported acceptance of equality in society for women, as we find in the Stoic discourses of Musonius Rufus (A.D. c.30-c.101), the teacher of Epictetus (A.D. 55-c.135), and the Neoplatonist treatises of Porphyry (A.D. c.232-c.305) (Frenchkowski, 1993, 1994, to appear). Renaissance writers on education such as Sir Thomas Elyot (1490-1546), who used English for all his books and like the Spaniard Juan Luis Vives (1492-1540) promoted sound teaching of the vernacular as a first step for children (another theme in Comenius), took up the classical idea of higher learning for women, as did Vives, but they designed this for the upper classes (Rusk, 1962, pp. 53, 62). Comenius' ideal transcends class distinctions, which in our century made his writings attractive in the former Communist countries (Alt, 1954). The religious content was ignored there, however, and, more tragically, Comenius' concern that humans should not exploit and damage nature, yet another theme in Greek writing, (Hughes, 1975a,b; Wall, 1994, pp. 32-3). Comenius' arguments about equality in education in the Czech Didaktika are wide-ranging and cogent:

No reason can be shown why the female sex . . . should be kept from a knowledge of languages and wisdom. For they are also human beings, an image of God, as we are; they are also partakers of the mercy and kingdom of the future life; in their minds they are equally gifted to acquire wisdom; indeed, in gentleness of understanding they are often more endowed than we. The Lord God likewise employs them sometimes in large affairs (to manage people, lands, estates, and even whole kingdoms; also to give special advice to kings and princes; also to practice the art of medicine and to care for fellow human beings; even to function as prophets and to aid priests and bishops in giving instruction and chastisement). Why then should we merely dismiss them with the ABC and drive them away from books? Are we afraid of their meddling? The more we introduce them to mental occupations, the less time they will find for meddling which

comes from emptiness of mind.

(Trans. Jelinek, 1953, p. 8)

This topic is to be found in Comenius' late work, the Pampaedia, and he makes clear in this work that the handicapped should share in universal education:

The question arises, are the blind, the deaf, and the stupid, whose defect prevents any impression being made upon them, to be provided with education? My answer is: (1) There is no exception from human education except for non-humans. Therefore their share in education should correspond to their share of human nature, increasing, if necessary, owing to the greater need for external help when nature through an internal fault is hardly able to help itself. (2) When nature is prevented from applying its power in one direction it should show its power in another with special training. [Examples of the blind becoming distinguished musicians; the deaf, excellent painters, etc.] . . . . Therefore as some means of access to the rational soul is invariably to be found, we must use it to instil Light.

(Trans. Dobbie, 1986, p. 31)

The importance of these passages is that they present in a clear and direct fashion the moral principles that should guide the educational policies of enlightened societies. Progressively through the work of UNESCO and other international bodies, these principles have been upheld more and more in this century in the co-education practices of nation states and provisions made for the handicapped.

In his writings, Comenius gave a great deal of attention to the training, role, authority, image, and status of the teacher. He argued on occasion that the essential feature of education was that "children should be in the company of wise, honourable and industrious men" and, as he also allowed, "matrons" (Sadler, 1966, p. 244). This emphasis on the teacher seems to

neglect the role of self-direction in education, which is a significant feature of the "transformation" philosophy of education, to which Comenius adheres in other areas. But one passage in the Schola pansophica (1651), written when he was head of a school for the last time at Sárospatak in Hungary, expresses succinctly certain key ideas that can be applied to an autonomous programme for language acquisition. In this book, Comenius reduced the fundamentals of teaching/ learning to three principles:

1. Proceed by stages.
2. Examine everything oneself, without abdicating in the face of adult authority.
3. Act on one's own impulsion. This requires that, with reference to all that is presented to the memory, the tongue, and the hand, the pupils themselves seek, discover, discuss, do and repeat, without slacking, by their own efforts, the teachers being left merely with the task of seeing whether what is to be done is done, and done as it should be.

(Quoted, Piaget, 1967, p. 16)

This seems to be excellent advice for all learning situations, certainly applicable to the formation of an autonomous German acquisition programme, in which the traditional instructional role of the teacher for the most part has to be built into the feed-back mechanisms of the instructional materials, as will be discussed in Chapter 5 of this thesis. Nevertheless, such a procedure leaves out the monitoring function of the teacher to which Comenius alludes in the third point. However admirable devotion to the supremacy of the principle of learner autonomy may be, at this stage of necessary monitoring, some concessions have to be made to the need for positive interaction between language learners/ acquirers and those qualified by experience and study to assess progress and performance. Chapter 5 will also take up this issue.

Other leading principles for teaching/learning procedures, enunciated by Comenius in The great didactic, also have appeal with respect to language acquisition: methodical arrangement,

right order or gradation, procedure by relevant illustration and carefully-chosen analogy, and coherence. Above all, progress in learning, he wrote, should be promoted by pleasure (intellectual and physical fulfilment) rather than coercion. We no longer compel the young to learn languages by the threat of swollen fingers, aching from the strap, or of bloody behinds from the administration of the cane or birch, but we hold over learners the shadows of failing grades or expulsion from school. Comenius wanted to see that schools or, more broadly, learning sites became happy places, "workshops of light" was his phrase (Panorthosia, ch. xxii, para. 9), where there would be delight in learning. Surely this is neither an unreasonable nor unrealizable goal for language acquisition, especially on the autonomous path, in which there is the agreeable feature of self-challenge; multimedia make available the encyclopedic resources of the "electronic highway"; and "virtual reality" can come to the desktop.

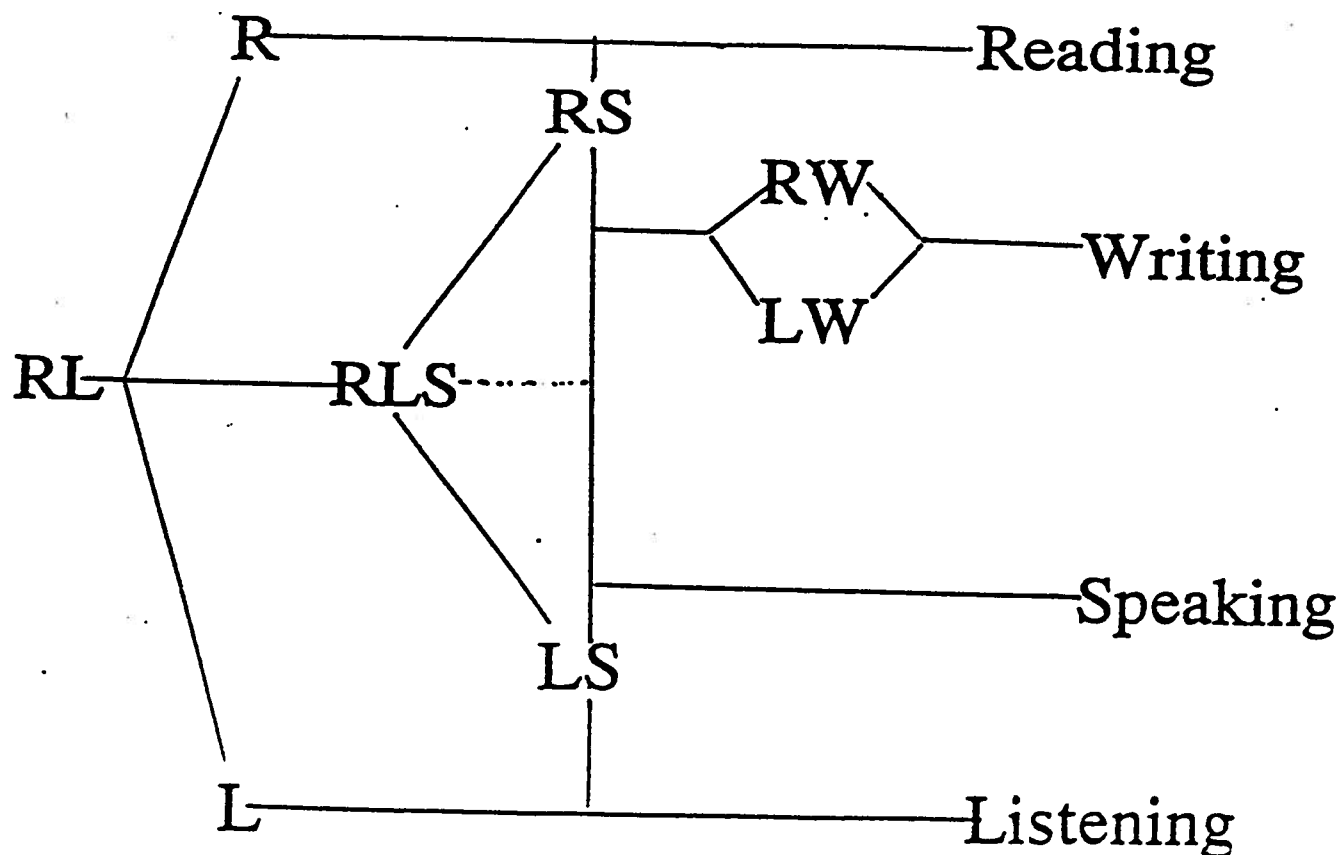
More specifically dealing with language acquisition, he noted that since pupils from six to twelve go to the common school, the language of instruction should be, first, the mother tongue, to handle education arising from observation of surrounding objects. The acquisition of Latin and other languages will then be easier, he wrote, because only additional nomenclature is needed as a basis. He recommended that modern languages of neighbouring nations (German, Polish, Hungarian, Wallachian, or Turkish in the schools he had in mind) should be learned before the ancient ones, and he urged a focus on usage rather than rules, suggesting successive practice in "hearing, reading, re-reading, copying, imitating with hand and tongue, and doing all these as frequently as possible" (Comenius, 1896, pp. 355-62; Caravolas, 1994, Vol. 1, pp. 353-4, 356-7, citing supporting passages in the Methodus). The transference Comenius suggests from the mother tongue to Latin foreshadows the method advocated for modern language teaching in response to the "threshold hypothesis" (van Ek, 1976), and there is some kinship with the "natural approach" in second language acquisition (Krashen and Terrell, 1983; Larsen-



Freeman and Long, 1991, pp. 302-3). Similarly, Comenius' stress on usage rather than rules can be connected with the communicative approach discussed in Chapter 4.

For the purposes of this thesis, however, the most important recommendation of Comenius for acquiring additional languages is the one concerning "hearing, reading, re-reading etc." In Chapter 5, this is made a core principle of the staging of the autonomous German acquisition programme.

The following diagram represents William Mackey's synthesis of the principles of Comenius regarding the staging and combination of skills required for second language acquisition:



Comprehension = RL

## 2.7. Language textbooks

The most successful and best-known of his textbooks was the Janua linguarum reserata (1631), written to direct the methodical acquisition of Latin, and pioneering the scheme of a series of graded schoolbooks (Appendix, A, 6). The names he adopted for them in various schemes are as follows: Vestibulum (entrance-court), I[J]anua (gate), Atrium (hall), Palatium (palace), and Thesaurus (treasury). These were taken from the Art of Memory of classical antiquity, in which the images and places of an architectural design were associated with items of knowledge to be remembered or topoi to be covered by orators. This Art was still cultivated in post-Renaissance Europe and taken as far afield as Ming dynasty China (Yates, 1969; Spence, 1986; Hutton, 1987, p. 374). Today's hypermedia programmers also make use of the architect's plan as a provider of spacial cues for sets of data (Cotton and Oliver, 1993, p. 40), and this arrangement could be made part of an interactive multimedia German language acquisition programme as we shall see in Chapter 5.

As sketched out in The great didactic, the contents of one series of architectural titles gives us Comenius' ideal for a language acquisition curriculum: the Vestibulum was to contain a mini-language, words arranged in short sentences, suitable for a child's conversation. The Janua was to expand the vocabulary to cover most common words so that descriptions of natural objects could be presented. Enough clear grammatical rules were to be provided to guide writing, pronouncing, forming, and using the words learned. The Palatium was to be an anthology of thoughtful and stylistically-varied discourses, with references to sources of phrases in noted authors, and rules for generating sentences. The Thesaurus was to be a set of texts by classical authors, accompanied by rules for abstracting from them and learning idioms, also a catalogue of further reading (Comenius, The great didactic, 1896, p. 360).

Comenius published two versions of the Vestibulum (written 1632-3, rewritten 1643-49);

two versions of the Janua (1629-31, 1643-49); and one complete and one incomplete atrial text (1652, 1650-7); but no Palatium or Thesuarus has been found among his works or papers (Jelinek, 1953, pp. 216-20). These manuals follow a plan slightly different from that found in The great didactic, and they were much in demand. Comenius allotted a considerable amount of space in the Didactica opera omnia (DOO, 1657) to the series he had prepared by the date of this publication.

His controlling metaphor was that the target language in the secondary school, Latin, was to be considered as a treasure hidden inside a palace. To acquire it, the learner followed a certain way, a VIA. Making the acquaintance of Latin in the "Vestibulum," the learner was to be exercised in "stammering" 3000 words, grouped into 427 very simple phrases dealing with human beings, nature, and God. Some rudiments of grammar (e.g., declensions) were introduced.

Passing the open gates of languages, "Janua linguarum reserata," the student had to know things which filled the earth and sky and to name them correctly. The vocabulary consisted of the 8000 most used words in Latin, chosen according to modern criteria, and grouped into 1000 phrases, divided into 100 centres of interest. The accompanying grammar taught the basic phonology, morphology, and syntax of Latin.

The manual of the third level was the Atrium. Its first aim was to teach the student to compose discourses on the subjects studied in the Janua, and to develop and embellish them with words and expressions found in the best authors. It consisted of 100 chapters made up of 1000 paragraphs. The second aim of the Atrium was to teach what is hidden under the surface of things, in part through presenting a vocabulary rich in synonyms, abstract words, and metaphors. For this manual, the accompanying grammar, Ars ornatoriae sive Grammaticae elegantis (1652; DOO, II-2:451-717) comprised a rhetoric and a poetics. The Lexicon atriale

(1658, published separately from DOO) was a dictionary of phrases compiled from the best authors, designed to teach by example how to write Latin with elegance (Caravolas, 1994, Vol. I, pp. 360-3).

The device of setting out the VIA of learning through a series of graded textbooks based on principles similar to those of Comenius took a century to become common practice (Rusk, 1962, p. 102). For the autonomous German acquisition programme, the task contemplated in Chapter 5 is to translate into multimedia resources Comenius' ingenious and comprehensive scheme requiring print. It should also be noted that Comenius' scheme provides for a form of immersion education in the secondary school, using Latin to gain access to encyclopedic knowledge and master the chief styles of expression in that language

Another text, the Methodus linguarum novissima (1649), is a work in the tradition of "philosophical" grammar and right method for pedagogy to which, as has been mentioned, Bacon gave his powerful encouragement (Aarsleff, 1982, p. 106). As mentioned in the Introduction above, the tenth chapter of the Methodus has become a book in its own right as an exposition of analytic didactics (Jelinek, 1953). Comenius' ideas on this subject are invoked in Chapter 4, when the thesis deals with current courses in German, and points forward to the autonomous programme.

Elsewhere in the Methodus, Comenius took up the distinction between lingua (language in general, language system) and sermo (utterance or discourse). He thus developed a comprehensive, if highly idealized (and biblically-oriented), scheme of linguistics suitable for application in acquiring Latin and other languages (Comenius, 1648/1989, Ch. II). This distinction was later to be emphasized by Ferdinand de Saussure (langue / parole), as is discussed in the next chapter. On one crucial point, however, Saussure took an opposite stand from that of Comenius, since he held that the relationship between the linguistic sign and what

it signifies is arbitrary (Mackey, 1992, p. 6).

Twelve points are covered in Comenius' scheme of linguistics:

1. Language is the image of things. The discourser conceives the image of surrounding things, dresses it in words and thus transmits it to an interlocutor.
2. Language brings back absent things or those so conceived. If things spoken of were present, it would suffice to indicate them.
3. Language is a social activity. It unfolds between many people. What need would there have been to use discourse to say to the self what the spirit knew already?
4. Language is a fundamental need for the existence of humanity. Without language there would have been only isolated individuals. Language is the tie which unites humans in society.
5. Language is born from thought, as thought is born from things. Thought is the image of things in the spirit, and discourse is the image of thoughts which pass through the spirit.
6. Discourse which does not contain ideas is not discourse. Without ideas discourse is only the imitation of discourse.
7. The better the reflection of things and ideas, the better the discourse.
8. Things, thought, and discourse must always follow the natural order. Above all, there are always things, since they indeed exist before our arrival in the world. It follows, that there are ideas of things, since it is in observing things that the spirit conceives their image and learns to understand them. External expression of things through words ought only to come at the end, since it is necessary to speak of what one has seen, comprehended, and apprehended.
9. Things, thoughts, and words maintain stable and harmonious relationships. Things tend

always towards the spirit, for they wish to be understood. Understanding of things has a tendency to diffuse itself, and for that words are sought. If things are understood truly as they are and expressed precisely as they are understood, there would be consonance between things, thoughts, and the mouth.

10. Language obeys three masters: the rules of things, because words express exactly their archetypes; the rules of thought, because words designate in an unequivocal manner what they are deemed to designate; and its own inner rules, because words are conformable to social usage.
11. The system of language is more complex and more delicate than the system of things and concepts, since it must take account of so many rules of a different nature.
12. Finally, it is necessary to understand that language, being the image of the things of the world, is something as immense and harmonious as the world itself.

(Comenius, 1989, pp. 112-4; Caravolas, 1984, pp. 104-5, English trans. by Ian Ross.)

No linguist today or theorist in applied linguistics would accept wholly this set of principles, but it covers a number of important issues. It points, for example, to the concept of what Steven Pinker discusses as "mentalese": the "suggestion that images, numbers, kinship relations, or logic can be represented in brains" in a kind of universal pre-language which, for the purposes of communication, has to be converted into the words of a specific language. Claiming that English, for example, is often ambiguous and illogical in expression, whereas thought is clear, Pinker considers that "mentalese" and spoken/written languages are "in many ways at cross-purposes" (1994, pp. 73-82). Comenius' Neoplatonist position is that this is not so: "things, thoughts, and words maintain stable and harmonious relationships" (point 9), and that "language, being the image of the things of the world, is something as immense and harmonious as the world itself" (point 12). We may find Comenius' statements naive, but we

are challenged by them to explore the consistencies or inconsistencies of a target language for acquisition, and to think of ways in which self-directed learners can accommodate the new language to their thought streams and to the world as they experience it.

The Methodus (chap. i) presents these principles operating in a world in which the Creator endowed Adam with a tongue for speaking, but in which language was man's creation, as the Book of Genesis (2.19) reveals. Comenius also accepts (chap. iii) the monogenetic theory for language. The Bible taught him that originally Adam and Eve and their immediate descendants spoke one language, but God decreed a confusion of tongues because humanity aspired to reach heaven with the tower of Babel (Gen. 11.1-9), hence the uncountable number of languages in the contemporary world. Of course, Comenius has to struggle to reconcile linguistic facts with biblical history which he took as literal truth. Nevertheless, he applies his linguistic principles to a wide range of important problems in linguistics, including typology and determination of the communicative function of parts of speech. In this regard, the principal tool is analysis of the structure of Latin and comparison with the modern languages Comenius knew best (Czech, German, and Polish).

Since he lived when colonizing by the European nation states in Africa, the Far East, and America was already in progress, Comenius could have had access to information about the two-stage pidgin to creole language formation process over two generations, that today is thought to give us some idea of the origins of grammatical complexity. A pidgin is primitive language of words and simple phrases that aboriginals will borrow from colonizers or foreign work bosses as a second language for communication in working or trading situations. One variety has been traced to Portuguese words borrowed in the fifteenth century by Africans, and spreading ultimately to Far East ports. Children and descendants of pidgin-users have been observed to inject complex grammar into the simple pidgin word strings to produce a more expressive first

language among themselves. The enriched version is called a creole, after the language found to be spoken by escaped Negro slaves in the Caribbean (OED Supp. Vols. I, III; Bickerton, 1981, 1984; Holm, 1988; Pinker, 1994, pp. 32-6).

A welcome feature of the book is the connection drawn between the process of language acquisition and the psychological understanding of maturation through the expanding vision and intellect of the child. Here is an anticipation of the model of cognitive development formulated by Jean Piaget (1963), who put on record his generous estimate of the seminal quality of Comenius' thought about education:

[He] is thus among the authors who do not need to be corrected or, in reality, contradicted in order to bring them up to date, but merely to be translated and elaborated.

(Piaget, 1967, p. 30)

To be sure, Piaget is not counselling us to swallow naively the stories of Adam's invention of language and the dire consequences of the erection of the tower of Babel, because they find a place in Comenius' linguistics. We would respond adequately to Comenius if we came to our own terms with these powerful mythic explorations of humanity's innate capacity for communication through language, and subversion of this capacity through wilfulness of the imagination.

Another Comenius text, Schola ludus (1656), has implications for autonomous German acquisition through interactive multimedia support. It stresses the principle of learning through play, anticipating much modern theorizing about the intrinsic playfulness of human nature (see Johan Huizinga's Homo ludens: Dutch ed. 1938; English trans. 1949, 1971), and much modern practice in role playing or socially-involving language learning which is a feature of the communicative approach to be discussed in the fourth chapter of this thesis. In the Schola



ludus, Comenius fulfils his promise to make school a pleasurable experience, by devising theatrical performances for the pupils. Thus, he wrote a dramatic sequence to present encyclopedic information and his ideal for improving the world.

In one of the school scenes in the third act, children start learning to write through looking at things. The teacher has brought along a picture or model of various animals to the lesson. To illustrate Comenius' play technique for language acquisition, an extract is offered from a German version of the Latin original:

[The reading teacher in a long skirt, with a pointer in his hand, and three pupils . . .]

Teacher (pointing to the first picture): What is this?

Pupil: A bird.

Teacher: Correct! But what kind of a bird?

Pupil: That I don't know.

Teacher: You, there, you tell me!

Second Student: I don't know.

Teacher: In that case, I will tell you: It is a crow.

Do you know how the crow cries?

Pupil: I don't know.

Teacher: This is how she talks: A, A, A (ah, ah, ah). You do it!

(Dieterich, 1991, p. 93, quoting Comenius, 1898, p. 342)

In the last chapter ways are outlined in which through hypertext and other multimedia programmes play or role-playing situations can be initiated, with dramatic interaction stimulating the acquisition of German. Comenius' Schola ludus, as represented by the above extract, suggested to language teachers how a simple immersion procedure could get children to learn the basic sounds of Latin, and interact in the classroom to use what they had learned.

Finally, it should be discussed how, in the Orbis sensualium pictus (1658), Comenius produced a textbook with far-reaching consequences for the use of visual aids in teaching/learning languages, and the whole procedure of awakening sensory responses to activate cognitive development of vocabulary and grammatical control. The first edition was published at Nürnberg in 1658, and by 14 October of that year, the Magdeburg school board had prescribed it as a textbook. It is not difficult to appreciate the visual and pedagogic appeal of this little work. On its title page (Appendix A), the holistic outlook of Comenius and his publisher is revealed in graphic and iconic terms. The reader sees (Appendix, A, 7), placed between the author's name, also the title set in Roman and Gothic fonts in Latin and German, and the printer's designation and place of publication, Comenius' favourite epigraph set in a circle: *ABSIT VIOLENTIA REBUS - OMNIA SPONTE FLUANT* [Let violence be absent--let everything flow spontaneously]. The icon within illustrates a holistic view of nature (Appendix, A, 8), through presenting what we would call the hydrologic cycle operating in the cosmos: rain falls from clouds on growing trees, streams flow down rocks into rivers, the sun shines and vapour rises to the sky, which displays not only the sun on one side, but the stars and moon on the other side, to suggest the alternation of day and night.

Within the text, the theme of the working of the cosmic system is found in the presentations about the elements. Thus, the picture representing air (Appendix, A, 9): *Aër / Die Luft*, displays the air or the breeze that wafts gently, the wind that blows strongly, the storm wind that tears down trees, the whirlwind that turns in a circle, the underground wind that causes earthquakes, and the earthquake that causes ruins. The facing page presents the Latin vocabulary and German equivalent, reinforcing the idea of generating sentences from the basic grammatical structure found in both languages: subject-verb-adverb (Comenius, 1658/1991, pp. 14-15). In today's terms, such an illustration or contemporary variant can extend into a useful

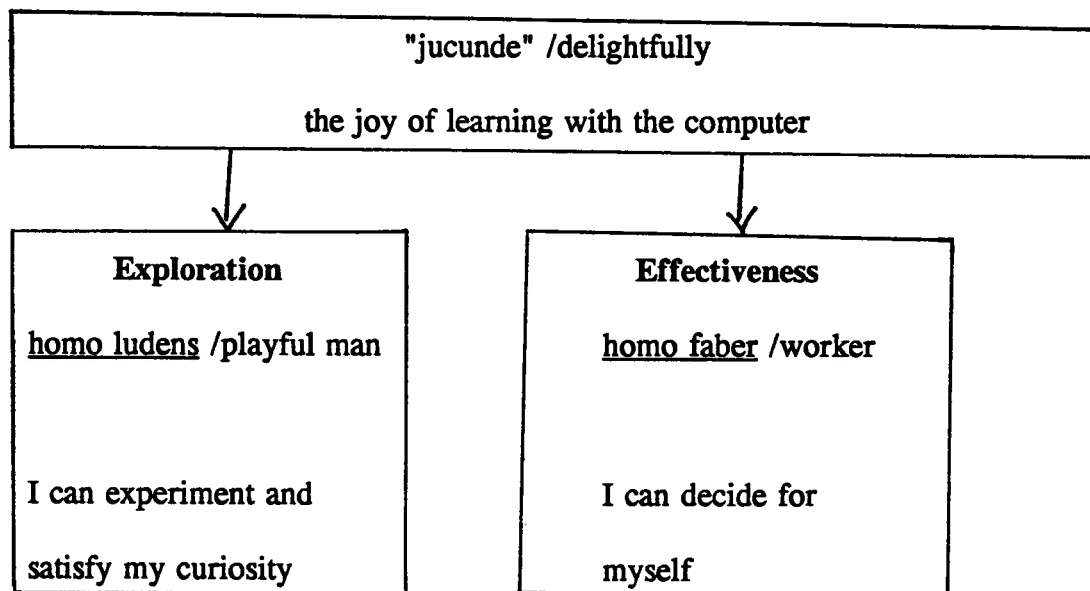
lesson in the working of transformational grammar (TG), and demonstrate to the student how much of the target language can be produced from a grasp of basic structure.

The Orbis pictus, which went through 250 editions up to the end of the nineteenth century, and is still being reprinted, for example, by the Toronto Public Library in 1982, became one of the most widely accepted language textbooks, and is today found a helpful study resource on Children's Literature lists at U.B.C. (report from Jane Flick, Department of English). However, what did generations of teachers and the schoolchildren who used the Orbis make of the archaic illustration of Coelium (III. Heaven)? This undeniably presents a universe with the sun going round the earth (Appendix, A, 10). Comenius knew of Copernicus's heliocentric "modern system," but perhaps he settled for the compromise theory proposed by Tycho Brahe, in which the sun revolves round the earth and the planets revolve round the sun (Sadler, 1966, p. 61). Lessons on this illustration could certainly bring in the idea of changing world pictures, perhaps even foreshadowing T.S. Kuhn's formulation of paradigm shifts giving rise to scientific revolutions (Kuhn, 1970), which would certainly be a valuable lesson countering scientific dogmatism.

When Ted Nelson invented the term "hypermedia" in the 1970s to describe a new extension of media systems to draw on the power of the computer to "store, retrieve and display information in the form of pictures, text, animations and sound" (Cotton and Oliver, 1993, p. 24), whether he knew it or not, he was drawing on the potential of the Orbis Pictus. His "hypertext" linked together textual material allowing the computer user to follow self-directed lines of enquiry along countless paths of knowledge. His Xanadu project ambitiously aimed at integrating all the great library collections of the world into a "seamless electronic system." This would allow the hypertext user to interact, for example, with a modern edition of Shakespeare's Macbeth, selecting from a menu of key words in the text, the term witchcraft, and

opening up a window on this, then accessing critical literature or encyclopedic information to follow up the bearing of contemporary ideas about witchcraft on the play, and to create a variety of possible interpretations of the play (Nelson, 1987).

A leap of the imagination allows us to see the possibilities of a hypertext language acquisition programme allowing the user-learner to follow self-directed paths connecting grammatical, semantic, syntactic, and cultural information to extend comprehension of the target language and produce or edit basic self-generated texts in that language. As Nelson pointed out, hypertext models more closely the way we actually think than the normal "sequential" reading. Many levels of detail can be covered by the hypertext programme, and the user-learner can decide how deep the involvement of the subject matter is to be. With its own imaginatively-used resources of typeface and woodcuts, the Orbis pictus had permitted the expansion of readers' minds to link words, phrases, and sentences from different languages to worlds of knowledge available for exploration. Additionally to these points, Weidemann (1994, p. 61) has illustrated in a diagram how the delight of learning with the computer can bring together in Comenian terms the two configurations of the self-directed learning personality: homo ludens and homo faber--



## 2.8. Reputation and legacy for educators

In the Via lucis (1641-2, 1668), Comenius heralded an age of Enlightenment, anticipating the co-operative scientific programme of the Royal Society of London, for instance, but some of his successors in the actual Enlightenment movement tended to disvalue him for his absorbing interest in prophetic or millenarian writings, for example, presented in his book dated 1657, Lux in tenebris which offered some hope to him in times of deep despair over his personal misfortunes and those of his people. Thus Pierre Bayle, echoing one of Comenius' adversaries, the militant Calvinist theologian Samuel Maresius, wrote him off as a "Spunger and true Sharper who made an admirable use of the character of a Teacher, in order to empty the Purses of well-disposed Persons" (1735, ii. 538, cf. Trevor-Roper, 1967, pp. 237-93). Bayle's view was influential through the widespread adoption in the Enlightenment of his viewpoint expressed in the Historical and Critical Dictionary. Comenius' most profound legacy of writings in Czech and Latin was not accessible to many readers in Europe or America, and thus Bayle's view of him prevailed. He was no revolutionary in political thought, which was possibly held against him by those who did read him at first hand. On the language front, there are limitations in his idealist and biblically-inspired philosophy of language outlined in the Methodus, also in pedagogic concepts such as recommending that vocabulary be taught by having a teacher point to things. Jonathan Swift makes fun of such a procedure in his satire on the project for a universal language, one of Comenius' schemes (Panglottia), in Book Three of Gulliver's travels (1726).

Nevertheless, the ideas and theories of Comenius proved to be an ever-renewable capital drawn on by generations of reformers seeking more effective ways of teaching and learning languages, and in contemporary terms aspiring to creative and transformational education. The far-reaching applications of his thought were appreciated by certain prominent thinkers in

successive generations. The rationalist philosopher Gottfried Wilhelm Leibnitz (1646-1716) worked with Comenius' grandson, Daniel Ernst Jablonski (1660-1741), co-founder of the Berlin Academy, for ecumenical religious reform inspired by the grandfather's writings. In addition, Jablonski, who had been consecrated as bishop of Community exiles in Prussia by his uncle Daniel Komenský (1646-96), Comenius' son, in turn consecrated David Nitschmann as first bishop of a general revival movement of the Community of Brethren. This consecration took place at Herrnhut in Saxony near the Czech border, where a town had been built on the estates of Count Zinzendorf (1700-60) by Moravian exiles. The Count was inspired to be the patron of what became known as the Moravian Church by reading Comenius' Latin version of the Order of Discipline of the Community of Brethren, and he was consecrated as bishop himself in 1737, then led missionary activities in Europe, Greenland, and America (Sadler, 1966, p. 28). He was present at the foundation of Moravian College in Bethlehem, Pennsylvania, where Comenius' educational principles have been followed since the eighteenth century, including co-education from 1850. Jablonski himself was a leader of a settlement of Czech and German adherents to the Discipline of the Community of Brethren, established in 1737 in the village of Rixdorf, near Berlin, under the protection of King Friedrich Wilhelm I of Prussia. This settlement has survived, still inspired by Comenius' religious and educational principles. In 1992, its members celebrated the 400th anniversary of Comenius' birth by creating a Comenius Garden (Appendix, 11) as a visible manifestation of his concept of the book of nature from which all who visit can learn (Vierck, 1992).

The Protestant sect in Germany known as Pietists welcomed Comenius' religious teaching and programme of social improvement through education expressed in his last testament, Unum necessarium (1668). In Halle, one of the Pietist leaders, August Hermann Francke (1663-1727) put the pedagogic principles of Comenius to work in the foundation of a comprehensive series

of co-education schools, primarily for orphans, from the elementary to gymnasium level. The Francken-Stiftung is now being restored after neglect during the Communist period in East Germany, and its history of contribution to early education in North America among black slaves and Indians through missionary teachers is being re-examined. Comenius was well aware of the cruel treatment of blacks and Indians by the European "conquerors" of the Americas, and in the Preface to DOO (1657) cites as an authority on this Bartolomeo Las Casas' report on Spanish atrocities (Brief account of the destruction of the Indies, German edition with engravings, by Theodore De Bry, 1598-9), which moved him to urge humane relations with native people .

Looking into the history of Comenius' impact on education and social reformers specifically, we find that the German educator Johann Bernhard Basedow (1723-1790) introduced Comenius' ideas about education and language teaching into the curriculum of the Philanthropinum he founded in 1774 at Dessau (Bollnow, 1950). Johann Gottfried Herder (1744-1803), the conscience of the Aufklärung as some called him, identified himself with Comenius' ideals for the betterment of humanity through the creation of conditions for world peace (Schaller, 1988). The republican-minded philosopher, Johann Gottlieb Fichte (1762-1814), responded to the humiliation of Prussia by Napoleon's army in 1806 at the battle of Jena in Reden an die deutsche Nation (1808), which called for national cultural revival through placing morality at the core of mass education. This was an idea promoted by Comenius, though it may have come to Fichte through his personal contacts with the Swiss educator Johann Heinrich Pestalozzi (1746-1827), who knew of the writings of Comenius, and was influenced by strands coming from a shared tradition of Renaissance-Protestant culture. Writing his Geschichte der Pädagogik (1843), K. von Raumer dealt with the importance of Pestalozzi's ideas, but he identified Comenius as the true founder of the science of education. Pestalozzi's disciple, Friedrich Froebel (1782-1852), was introduced to Comenius' School of infancy by Karl

Krause, and this helped him form his influential concept of the Kindergarten, in which the young child would be helped by the teacher-gardener to unfold autonomously like a plant, principally through play and language extension, and like the plant experience mystical union with nature and the universe (Sadler, 1966, pp. 29-30; Price, 1967, pp. 235-7). The French historian Jules Michelet (1798-1874), proponent of the idea that women as well as men should be given their true place in humanity's ongoing story of self-creation, valued Comenius' work so much that he declared him to be the "Galileo of education" (Michelet, 1870, p. 146).

The awakening of Czech nationalism early in the nineteenth century also brought attention to the thought of Comenius, principally through the work of František Palacký (1798-1876), regarded as founder of modern Czech historiography and designer of a political programme for the revival of the Czech nation. He published the first extensive biography of Comenius in 1829. The biologist Jan Evangelista Purkyně (1787-1869) led investigation into Czech historical sources in foreign libraries and archives. He discovered and arranged for the preservation of a number of Comenius' manuscripts from Leszno and elsewhere in what became the Czech National Museum. A full programme of scholarly work on these hitherto unknown manuscripts and the early editions of Comenius' writings, bringing together Czech-Slovak and German investigation, was encouraged by the foundation of the Leipzig Comenius-Stiftung in 1871 and Comenius-Gesellschaft in 1891 in Berlin. In Leipzig, a Comenius pedagogical library was formed attaining 70,000 titles by 1900 (Monrow, 1900, p. 169), but the Nazis curtailed its activities in 1935, and it was largely destroyed by the allied bombing in World War Two (Sadler, 1966, p. 31). Arising from the solid textual and historical studies of Comenius in his homeland and in the two societies came the editorial and biographical work of Ján Kvačala (1862-1934), who brought understanding of Comenius' thought to a higher level by placing it within the framework of Neoplatonism, and coordinating further research through founding in



1910 the journal known today as Acta Comeniana.

During the era of the rise of Czech nationalism, education was developed as an academic subject in the Francophone and Anglophone worlds, and Comenius was given his place in the study of educational ideas as a theoretician and reformer, which internationalized his fame in the twentieth century. The creation of the Czechoslovak republic in 1918 brought official recognition of Comenius' major contribution to the development of the Czech language as well as of his pedagogic thought (Pánek, 1991, pp. 71-6). This recognition continued under the Communist state formed in Czechoslovakia in 1948, which supported the publication of a complete edition of Comenius' Latin and Czech works under the direction of the national Academy of Sciences (DJAK). However, just as Comenius became a symbol of resistance to Habsburg autocracy in the seventeenth and nineteenth centuries, so his work inspired those who sought liberation from Communism. Thus, the officially discredited commentaries of Jan Patočka, emphasizing the holistic thought of Comenius and connecting it with the ecological concerns of the 1980s, appeared illegally in samizdat. They influenced the thinking of Radim Palouš, who was active in the Velvet Revolution of 1989 as a supporter of Václav Havel and subsequently became Rector of Charles University in Prague (Zwiener et al., 1993, p. 6; Palous, 1993, 9). The chief locations for Comenius studies and documentation at present in the Czech republic are the Comenius Pedagogical Institute (now responsible for Acta Comeniana) in Prague (where there is also a Comenius Pedagogical Museum); the Comenius Museum in Uherský Brod (which publishes Studia Comeniana et historica, 1971ff, and Bibliographia Comeniana, 1972ff); and the Comenius District Museum in Přerov. Abroad, the most active centre is the Comeniusforschungsstelle, headed by Klaus Schaller, in the Pedagogical Institute of the University of the Ruhr at Bochum, which publishes a journal, Mitteilungsblatt (1970ff), and a Schriften series for monographs and source material.

A Canadian Society of Comenian Studies was founded at Montreal in November 1992 to build strong links with sister societies in the Czech Republic, France, Germany, England, and Japan. Among the aims of the Society are the following:

1. to promote Comenius' contribution to pedagogy, teaching of languages, linguistics, philosophy, literature, history, etc. in Canada;
2. to study the humanistic values championed by Comenius; and to encourage and coordinate research on comeniology in Canada.

(Canadian Soc. of Comenian Studies flyer, Montreal, Nov. 1992)

The Society's president, Jean-Antoine Caravolas, concludes a chapter in his recent book on language didactics with the statement that the theory of the "génial" Comenius in this field has been forgotten: "pour le plus grand tort de la discipline" (1994, Vol.I, p. 369.) Perhaps this thesis in working out applications of Comenius' theory for an autonomous German acquisition programme will do something to advance the aims of the Society and correct that wrong.

### **3. THE CONTRIBUTION OF LINGUISTS AND APPLIED LINGUISTICS: ARNAULD TO CHOMSKY AND HIS EPIGONI**

Without for the moment distinguishing terminologically between languages and language, where do we find the linguistic phenomenon in its concrete, complete, integral form? That is, where do we find the object we have to confront?

Ferdinand de Saussure

#### **3.1. Arnauld and universal grammar**

The history of the significant interaction of language theory and language acquisition practice, like that of other complex subjects involving intricate adjustment of theory and practice such as physics (Pais, 1986, pp. 29, 138-9, 454), is a seamless web in the sense that it is difficult to know where to begin to unravel it. A valiant attempt to delineate it has been made by H.H. Stern (1983), and his neglect of the contributions of Comenius outlined in the previous chapter is being overcome by the work of Caravolas (1984, 1993, 1994) and Mackey (1965, 1992a). Contemporary second language acquisition (SLA) theories have recently been summarized in two well-written books (Larsen-Freeman and Long, (1991, pp. 220-298; Ellis, 1994, pp. 11-40). The authors have wise and cautious words about the role of theory in the SLA field, but their review is historically foreshortened which is one drawback, and another is that the theorists seem to theorize out thin air because no context is given to them. To provide a historical panorama useful for conceptualizing a German self-directed language acquisition programme, and to make up for some of the omissions in Larsen-Freeman and Long, also Ellis'

book just published, this chapter goes back to that century of genius which produced Comenius and by selecting important contributors to theory brings out significant issues for autonomous SLA.

Another vitally important education reformer, as well as theorist about language, who sought to transcend the bitter religious disputes of the seventeenth century, was the Jansenist theologian Antoine Arnauld (1612-94). He was an intellectual leader of the priests and nuns, as well as secular men and women, who were educated or drawn to the religious community established at Port-Royal des Champs, a Cistercian abbey near Paris. Though attacked for its alleged heresies by the Jesuits, Port-Royal was sheltered by Court patronage, principally through the period 1637-61, when it contributed a great deal to French culture. The dramatist Jean Racine (1639-99) was educated there, and the scientist and philosopher Blaise Pascal (1623-62) was a resident during the last years of his life. In addition to his theological writings, Arnauld concerned himself with philosophy, particularly logic, earning for his work the respect of Descartes, Locke, and Leibnitz, and he gave considerable attention to language and language acquisition.

With the grammarian Claude Lancelot (1615-95), Arnauld collaborated on new methods for teaching Greek and Latin. Perhaps because of their Catholic ideology, they condemned and rejected the work of Comenius (Caravolas, 1994, Vol. I, p. 369). Together, Arnauld and Lancelot published in 1660 the Grammaire générale et raisonnée, which took a different approach from the graded grammars Comenius attached to his VIA scheme for language acquisition. The subtitle of the Grammaire générale in part indicated its authors' focus on the abiding linguistic problems of universals and typology: Les raisons de ce qui est commun à toutes les langues, et des principales différences qui s'y rencontrent. The synchronic approach of concentrating on the similarities and differences among languages, and setting aside diachronic

questions of historical antecedents of states of languages, allows for generalizations about the structures and functions of human languages. This has affinities with the somewhat fragmentary views expressed by Descartes about language, essentially taking the line that since language is the product of the mind, it should be treated through the abstract procedures of rationalism. As a result, the nineteenth-century critic Sainte-Beuve claimed that the Port-Royal theory of "universal" or "philosophical grammar" was a "branche de Cartésianisme que Descartes n'avait pas lui-même poussée" (1888, iii. 539).

### 3.2. Chomsky's LAD

In our time, Noam Chomsky (b. 1928), long-time professor of modern languages and linguistics at the Massachusetts Institute of Technology and outspoken radical critic of U.S. foreign policy during the Vietnam War era and later, has found one origin for his kind of research programme into the nature of linguistic universals in the Port-Royal theorizing about "philosophical grammar." He follows Sainte-Beuve in calling this "Cartesian linguistics" (1966, 1968). To be sure, it has been argued (as explained below) that this denomination is quite mistaken (Aarsleff, 1982, pp. 101-19). Still, Chomsky sees his research as laying out "generative grammar," defined as follows in one of his formulations:

a description of the tacit competence of the speaker-hearer that underlies his actual performance in production and perception (understanding) of speech. A generative grammar, ideally, specifies a pairing of phonetic and semantic representations over an infinite range; it thus constitutes a hypothesis as to how the speaker-hearer interprets utterances abstracting away from many factors that interweave with tacit competence to determine actual performance.

(Chomsky, 1966, p. 75, n.2)

With his terms "competence" and "performance," Chomsky in effect is recapitulating the distinction Comenius drew between lingua (a language known in the abstract as a system) and sermo (actual discourse in the language, uttered or written). His procedure, however, is likely to have been refinement of Saussure's discussion of langue and parole (noted below). The historical background to Chomsky's terminology and analysis is discussed by Coseriu (1988). Chomsky's claim is that the mind or brain contains sets of concepts and related words, also a set of rules for combining the words to indicate relationships among the concepts. The set of rules he called a "generative grammar," because it guides or gives rise to meaningful discourse internally in the mind or brain, at the deep structure level of "competence." At the surface level of "performance," Chomsky holds, this "generative grammar" gives rise to the production of external discourse. Pinker comments that Humboldt's phrase, "[language] makes infinite use of finite media," captures Chomsky's meaning, also that Chomsky in his most recent writings has suggested that the "deep structure" concept is unnecessary (Pinker, 1994, pp. 84, 121-2).

Like the mind-body dualism of Descartes, the linguistic dualism of Chomsky solves some problems and leaves a number of puzzles. Communicative aspects of language have been investigated by SLA researchers in the light of this distinction, but they have had to deal not only with communicative competence, including the knowledge a speaker-hearer-reader has of appropriate and correct language behaviour in particular situations; but also with communicative performance consisting of the actual use of that competence in producing discourse. It has proved difficult in practice through analysis of performance to get at the mental knowledge constituting a learner's competence (Ellis, 1994, pp. 12-3), which Chomsky argues (1965) is innate for L1. Because of this difficulty, attempts to specify what interventions to make in order to extend L1 competence to L2 have had mixed results (Cook, 1988; Freeman-Larsen and Long, 1991, 228-40).

Nevertheless, Chomsky's thirty-year concentration on "generative grammar" as summed up in such books as Knowledge of language: its nature, origin, and use (1986), Generative grammar: its basis, development and prospects (1987), and Language and the problems of language (1988) has challenged SLA researchers to work with the idea that humans are innately (genetically) endowed with Universal Grammar, that is, "universal language-specific knowledge," and to build on or seek to disprove this "nativist" theory (White, 1989; Ellis, 1994, pp. 415-660. Also, Chomsky and his associates have had sufficient success in formulating workable transformational rules governing sentence organization to persuade researchers and practical people like textbook compilers (e.g., Neuner and Scherling et al., 1988) to adopt the "generative grammar" model.

Thus, from the 1960s it has been argued along Chomskyan lines, with or without conscious recognition of the long pre-history of universal grammar going back to the Port-Royal publication and forerunners such as the Minerva. seu de causis linguae latinae commentarius (1587) of Sanchez (Sanctius) de Las Brozas (Lakoff, 1969), that children have an innate capacity for language generation. When children first hear speech, general principles for recognizing and producing language begin to operate. Pinker gives the operation of these principles the somewhat archaic name, the "language instinct": "it conveys the idea that people know how to talk in more or less the sense that spiders know how to spin webs" (1994, p. 18). However, current SLA literature puts the matter differently, suggesting that general language principles operating in a child, for example, constitute a "language acquisition device" (LAD). This LAD is viewed as providing a means for the child to make sense of speech heard or overheard, and ensuring that the child derives from actual speech the rules forming the grammar of a language, generalizations that govern ways in which sentences understood in that particular language are formed. These generalizations constitute language universals (Chomsky, 1965,

1980; White, 1989, and forthcoming).

The task of acquiring a second or foreign language then, in part, amounts to extending the range of LAD to encompass the new language or, perhaps, replicating in accelerated form with the additional material of L2 the LAD's processing activity as the mother tongue was acquired. However, controversy has surrounded attempts to differentiate the approach of children to learning languages from that of adults. Attempts to detail the essential properties of LAD have also aroused debate in the light of recent generative grammar theory (Klein, 1987, pp. 18-21, 1990; Crystal, 1987, and 1992, p. 234; Larsen-Freeman and Long, 1991, pp. 228-40). Still, plausible accounts of how our universal grammar word processors work can be given from a cognitive science perspective (Pinker, 1994, pp. 83-125), and from a psycholinguistic one (Levelt, 1989; Dijkstra and Kempen, 1993). Further, research has suggested that knowledge of linguistic universals may promote L2 acquisition in identifiable ways:

1. Rules reflecting universal principles may be acquired before those that do not. The theory thus provides an explanation for sequences of naturalistic development. A case in point is the stable pattern of acquisition of German word order rules evinced by learners with Romance language backgrounds, which was identified by the ZISA project research group at Hamburg in the late 1970s (Jordens, 1988; Pienemann, Johnston, and Brindley, 1988).
2. It has been suggested that knowledge of linguistic universals may provide the language acquirer with a projective capacity (Zobl, 1983), such as Japanese L2 acquirers discovering that in the target language verbs come at the end of clauses, and being able to infer that Japanese has post-positions rather than prepositions.
3. L2 acquirers with a knowledge of linguistic universals may be more prepared to transfer to the target language L1 features, if these are governed by universal features (Ellis,



1994, p. 35).

One implication of universal grammar theory, then, for the autonomous German acquisition programme designed for English-speakers is that the introduction of grammar should be carefully staged so that universality of language principles can be invoked for specific aims, a Comenian idea as well as a Universal Grammar one.

First, word order rules should be presented in a pattern of naturalistic development, taking note of what is learnable at what stage. This procedure adds the insights of the ZISA group from their Multidimensional Model of language acquisition (Freeman-Larsen and Long, 1991, pp. 270-87) to the Comenian VIA.

Second, the projective capacity of the learners should be encouraged, so that what is learned is followed up logically, and a step towards autonomy and automaticity can be taken. In this connection, the Multidimensional Model insights can be usefully supplemented by the "conceptual, functional-pragmatic" approaches to SLA, which concentrate on the "interplay of phrasal, semantical and pragmatic principles" in relation to "utterance organization" (Givon, 1984, 1990; Klein and Perdue, 1988). Thus, work with word order rules, for example, could lead to learning situations staged to require the learner to add to her repertoire of phrases, through projection from what is known, more verb forms and inflections.

Third, risk taking in transferring to German some universal rules from English coding should be encouraged to make explicit for German what is implicitly known for English, as in identification copulas: My name is Smith / Mein Name ist Schmidt. . . . Das ist Braun etc. Exceptions to rules should be learned last, perhaps with the help of drills to overcome fossilizing of incorrect coding. Keeping in mind the difficulties with Cartesian dualism, especially the question, how does the mind affect the body, it should be recognized that there is an interface between competence and performance, and we are simply using these terms to help describe and

predict or manage different aspects of language activity, not to define inviolable language essences.

### 3.3. Bruner's LASS

Building on insights obtained from the work of the Marxist psychologist Lev Semenovich Vygotsky (1896-1934) which focused on semiotics and cross-cultural exchange, and seeking to bring out the deep parallel between all forms of knowledge acquisition, the Harvard psychologist Jerome Bruner (b. 1915), who once paid tribute to the "impatience" of his students for helping him to "keep a sense of doubt well nourished" (1966, Preface), argues there is a "crucial match between a support system in the environment and an acquisition process in the learner." In consequence, Bruner concludes there is a Language Acquisition Support System (LASS), that is a counterpart to the Language Acquisition Device (LAD). His point is that the function of LASS is to ensure that language inputs will assume forms "acceptable to the recognition routines of LAD" (Bruner, 1985, p. 28).

The implications for language acquisition are far-reaching and suggest, among other things, that learners have to take into account the fact that there is a target culture providing cues that support the target language input. While dismay at this news could overwhelm the language acquirer faced with further enlargement of the learning agenda, relief comes with the recognition, noted by Bruner (p. 29), that we seem to "learn" culture readily and effectively on our own. The lesson is that the language acquirer must have access to the high and low culture (Inglis, 1994; Milner, 1994) in which the target language is embedded: films, pictures, paintings, sculptures, dance, costumes, music, literary and other texts, and so on, all readily available in multimedia language labs, to support the treatment of words and sentences in the grammar books, also the idiomatic and colloquial dialogic exchanges of the communicative

approach however presented. For the self-directed German acquisition programme, it will be necessary to inject an intercultural and cross-cultural dimension, especially through the multimedia materials, but also through face-to-face contact with the local German community members, organisations, and cultural events, to deepen and authenticate the linguistic understanding sought by the students. At the same time, the target culture should not be reduced to the familiar or explained away in the multimedia materials, but rather its "otherness" should be brought out so cultural perspective is maintained, and the target language can become a window on the unfamiliar and irreducible (Kramsch, 1993). The goal of German SLA with intercultural awareness should be to make it a transforming experience.

#### 3.4. Lado and the contrastive approach to language acquisition

At the time when the formulation of Chomsky's TG (transformational-generative grammar) model began to preoccupy linguists and encourage research into the mental processes involved in acquiring languages, Robert Lado sought to open up language acquisition in a book entitled, Linguistics across cultures (1957), through focusing on the errors made by second language learners. He advocated attempts to predict and describe patterns that impeded or furthered language learning tasks, "by comparing systematically the language [L2] and the culture to be learned with the native language [L1] of the student" (Lado, 1957, p. vii).

Lado's work connected with the audio-lingual (hearing-speaking) emphasis in language teaching which began in the 1940s. This was a reaction against the traditional, grammar first, then translation, model of language teaching which had never attended to the message of Comenius. There resulted an ascendancy lasting until the 1970s of the contrastive approach in language teaching. As far as German was concerned, this procedure had roots in the careful work of Wilhelm Viëtor on phonetics (1884). The chief claim of this approach was that the L1

system's interference with the L2 system could be identified through contrastive analysis, and repairs could be effected through error identification and correction (Di Pietro, 1971).

### 3.5. Selinker's "interlanguage" concept

A counter-view came to be asserted, namely, that errors represent stages in the language learning process, and should be viewed positively as naturalistic tests of hypotheses about the acquisition of L2, in truth as the systematic creation of an "interlanguage" (Selinker, 1972, 1992; Selinker and Lamendella, 1981; Gass and Selinker, 1983; Gass, Madden, Preston, and Selinker, 1989; Larsen-Freeman and Long, 1991, pp. 81-113; Singh, 1993). A refinement of this position has arisen from research to demonstrate that noting errors can be used positively to heighten learners' conceptual awareness of grammar so that they can shift from "postarticulatory corrections to pre-articulatory control" (Narcy, 1993, p. 315).

The upshot of theoretical and applied linguistic studies as a result of research developments, including TG modelling and contrastive then "interlanguage" formulations, has been to redirect attention to the cognitive and affective processes of the language learner. How is intelligence involved (through reasoning, perception, memory) in processing language, and what emotional factors in attitudes and dispositions promote acquisition (Kramsch, 1992, pp. 56-9)? The fourth chapter of this thesis examines the curriculum philosophy of a series of German language textbooks to chart recent changes in phases of teaching-learning methodology. One culminating stage of this process is to be found in the orientation of what has been called the "post-communicative generation of textbooks" (Jones, 1993, pp. 211-2), and the call for learner autonomy and self-study programmes (Holec, 1981, 1988; Dickinson, 1987, 1992; Skehan, 1989; O'Malley and Chamot, 1990; Wenden, 1992; Legenhausen, 1993). The fifth and last chapter of the thesis is a response to this call through presenting in ideal terms what should be

the chief features of the autonomous German acquisition programme.

### 3.6. Chomsky's deficiencies but challenge to behaviourism

One issue has to be raised at this point concerning the intellectual leadership given by Chomsky in linguistics, because his impact on applied linguistics has been extensive and lasting (cf. White, 1989, and forthcoming; also, the runs of articles in Second Language Research (published by Edward Arnold, London) covering studies carried out within a UG framework). With others (cf. Boas, 1993, Harris, 1993), the Danish scholar Hans Aarsleff, who taught linguistics at Princeton in the philological tradition, has roundly criticized Chomsky for his deficiencies as a historian of linguistics:

[His] version is fundamentally false from beginning to end -- because the scholarship is poor, because the texts have not been read, because the arguments have not been understood, because the secondary literature that might have been helpful has been left aside or unread, even when referred to.

(1982, p. 116)

These charges can be borne out, in part at least, from a reading of Cartesian linguistics (1966), in which the argument is interspersed with long, unassimilated passages in French and German which are often far from supporting Chomsky's claims. Nevertheless, Chomsky did a great service to linguistics and language acquisition studies in the 1950s and 60s by developing his theories of the innate language processor, and by challenging the prevailing empirical or behaviourist school, perhaps best outlined in Language (1933) by Leonard Bloomfield (1887-1949), cited by Crystal (1992, p. 408) as a "book which dominated linguistic thinking for over 20 years." Chomsky was also effective (1970; Harris, 1993, p. 55) in attacking the operant conditioning theory of learning developed by B.F. Skinner (1968), as well as his language theory

found in Verbal behaviour (1957).

Entrepreneurs in the business of delivering language courses have sought to capitalize on these intellectual struggles and transcend them, as we see in the following advertisement that appeared in 1984 in a South American newspaper (Crystal, 1992, p. 374):

**SPANISH GERMAN FRENCH**  
**MASTER IT WITH NO COURSE OR TEACHER**  
**UNBELIEVABLE?**  
**BUT TRUE**

A successful application of B.F. Skinner's and Noam Chomsky's Theories has resulted in a system that makes it possible.

And to top it all, you can do it in less than 90 days and no more than 200 hours.

By appointment only. Please call us, Tel. \*\* \*\* \*

and ask for Mrs. \*\*\*\*.

We'll gladly show you how it works at no cost.

This advertisement is presented as an amusing example of a language acquisition marketplace effort to sell an autonomous system promising a marriage of irreconcilable theoretical partners. The importance of Chomsky's UG theory over Skinner's behavioural theory for an autonomous German acquisition programme is that it offers a fuller and more coherent account of language processing, and therefore provides a more satisfactory foundation for structuring German input, retention, and production by the learner.

### 3.7. Humboldt and social subjectivity of language

In seeking to revive the rationalist or mentalist tradition, emphasizing the universal characteristics of language and the human capacity for acquiring or learning it, as found in the

Port-Royal grammar, Chomsky also called attention to the writings of Wilhelm von Humboldt (1767-1835), the Prussian diplomat, education reformer, and political theorist. There certainly are important elements of the mentalist approach in Humboldt's early texts on language theory, for example, Über Denken und Sprechen (1795-6) and Über die Natur der Sprache im allgemeinen (1806: Humboldt, 1980). However, Aarsleff has argued that a more fundamental influence on Humboldt with respect to language theory was that of the French idéologues, led by Destutt de Tracy (cf. 1798: "Mémoire sur la faculté de penser"), whom Humboldt knew intimately in Paris between 1797 and 1801. Subsequently, from 1802 until 1808, he was in Rome nominally as a diplomat dealing with the Vatican, but intensely focused, first, on language studies based on linguistic and anthropological material his brother Alexander had collected in America; and, second, on the resources of the Vatican library. In 1804, he wrote to his friend F.A. Wolf: "Basically everything I work at . . . is language study. I believe I have discovered the art of using language as a vehicle to range over the highest and lowest levels of the world and its *multiplicity*." This word is italicized because it relates to an important theme in Humboldt's studies and writing, our need to be aware of the immense variety of the world's cultures and language systems when seeking to generalize about language capacity as a property of humans, and how we exercise this capacity, for example, in adding other languages to the mother tongue.

Aarsleff points out that Humboldt maintained two core principles in his sustained linguistic work, from early fragments of a monograph on the Basques, first published in 1907, to the most mature of his books, the great study of the Kawi language published just after his death: Über die Kawi-Sprache auf der Insel Java, nebst einer Einleitung über die Verschiedenheit des menschlichen Sprachbaues und ihren Einfluss auf die geistige Entwicklung des Menschengeschlechts (1836-39: Humboldt, 1980). These principles are as follows:

1. language is at bottom subjective;
2. it is sociability that drives humans to seek understanding through communication (something Comenius recognized).

In Aarsleff's view these principles stem ultimately from the empirical philosophy of John Locke, who argued that words relate not to objects but to the ideas we have in our minds arising from sense impressions and internal impressions (1982, pp. 170-1). Locke's philosophy respecting language was developed further by Condillac (Essai sur l'origine des connoissances humaines, 1746), whose formulations inspired Herder's Abhandlung über den Ursprung der Sprache (1772). It is also Aarsleff's view (1982, pp. 344-7) that Humboldt owed more to the *idéologues* who were inspired by Condillac than to Herder. Accordingly, it is in the tradition of the Locke-Condillac-Destutt de Tracy language philosophy we find such claims as those presented in the Kawi book:

The entire manner of the subjective perception of objects is necessarily carried over into the formation and use of language. For the word originates precisely in the perception, it is not a copy of the object itself, but of the image the object creates in the mind. . . Since all objective perception is unavoidably mixed with subjectivity, it follows that we, even independently of language, can consider every human individuality as having its own view of the world [Weltansicht]. But it becomes still more so by language.

(Quoted in Aarsleff, 1982, pp. 346-7)

This is an important passage for its emphasis on the connection between any one language and the perceptual field, sensory and cultural, of the native language user. The word Weltansicht, in particular, alerts us to an important challenge of second language studies, that the unique angle of vision of native speakers embedded in their language must be explored by the learner. The challenge is made sharper in an autonomous programme where the student is always thrown



back on his own intellectual and emotional resources for understanding and motivation in acquiring the second language in its uniqueness. This must become a strength of the programme, through careful staging of intercultural and cross-cultural material supporting the language material (lexical, grammatical, morphological, syntactic etc.), rather than a cause of alienating the student from the target language.

### 3.8. Sapir-Whorf hypothesis of cultural specificity of languages

Humboldt's strongly expressed views about Weltansicht found a response in the research programme of the American linguist and anthropologist Edward Sapir (1884-1939) and the writings of his student Benjamin L. Whorf (1897-1941). Their inquiries into Native American languages resulted in the formulation of what is commonly called the Sapir-Whorf hypothesis (Crystal, 1992, p. 15). Sapir did field research on specific North American Indian communities under the distinguished anthropologist Franz Boas, and he generalized from his experience of their different languages that their speakers paid attention relative to different aspects of reality to frame sentences that were grammatical in their languages. Whorf was an engineer inspector with the Hartford Fire Insurance Company who studied Native American Indian languages in his armchair as a hobby. He did take some language courses from Sapir at Yale, however, and he wrote a book, Language, thought, and reality (1956), from which came the following passage:

We dissect nature along lines laid down by our native languages. The categories and types we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds--and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe

significances as we do, largely because we are parties to an agreement to organize it in this way--an agreement that holds throughout our speech community and is codified in the patterns of our language. The agreement is, of course, an implicit and unstated one, *but its terms are absolutely obligatory*; we cannot talk at all except by subscribing to the organization and classification of data which the agreement decrees.

(Quoted in Pinker, 1994, pp. 69-60)

This deterministic statement has become known as the strong form of the Sapir-Whorf hypothesis. It is far more radical than the weak (relativistic) form of the thesis held by Sapir, and it has been shown to rest on very shaky grounds. Perhaps because he did not study any specific Apaches, for example, Whorf argued in a circle about them: Apaches do not speak like Americans, so they must think differently. How do we know they think differently? They speak differently. Moreover, Whorf relied for evidence about Apache grammar on poor translations of Apache talk. Also, he apparently based on badly analysed and brief Hopi texts his conclusion that the Hopi language had no words to refer to what Americans call "time" or to refer to "past, or future, or to enduring or lasting."

Further, he seems to have been responsible for launching what Pinker calls the Great Eskimo Vocabulary Hoax, the claim that the Inuit have far more words for snow than English because they inhabit a world determined by snow. In fact, Whorf took over in an article a remark by Boas in 1911 that the Inuit have "four unrelated root words for snow," embellished the number to seven, implied there were more, and set going incremental reportage of this amazing fact that reached the point of claiming there were 400 Inuit word for snow (Pinker, 1994, pp. 60-4).

The strong, determinist form of the Sapir-Whorf hypothesis, then, would appear to be an absurdity, but the weaker, relativistic form does have utility in language acquisition studies.

Our own language shapes our categories and, perceptions, and contributes to the way we handle mental tasks such as memorization. It has been shown experimentally in psycholinguistic studies that L2 recall is greater if objects are signified by terms easily recognisable or familiar through linkage to L1 terms. Such results have indicated the need in the autonomous language acquisition programme for an informed, empirical awareness of linguistic and cultural congruence and diversity (where Weltansicht difficulties come in), as contrasted with reliance on the other main theoretical, mentalist approach of emphasis on language universals (Crystal, 1992, pp. 15, 84).

### 3.9. Schleicher and the evolutionary concept of languages

One more negative example of a language theorist, a more dangerous case than that of Whorf, will be introduced at this point to bring forward again the topic of holism in connection with language study. Part of the argument in Chapter 2 was that Comenius' form of holism led to encouragement for multiple language acquisition because of respect for common humanity and the desire to promote peace through universal education. Another kind of holism was espoused in the nineteenth century, however, with the rise in prestige of the natural sciences. The overview was taken that humanity together with its capacities and cultural forms was part of nature and subject to natural laws as determined by science. As part of this outlook, languages came to be considered organic entities with their own life-cycles and laws independent of their speakers, thus language study was to be regarded as one of the natural sciences.

A spokesman for this position was the comparative philologist August Schleicher (1828-68), who introduced the Stammbaumtheorie (Crystal, 1992, p. 292), and took the organicist metaphor of the growth and decay of languages to extremes. In the wake of the publication of Darwin's Origin of species (1859), he applied a racist form of Darwinism to fit his concept of

evidence of language decay to allegations of manifest inferiority in the Kampf ums Dasein:

We can now see that certain nations, for instance the Indian tribes of North America, already owing to their infinitely complicated languages truly luxuriating in forms, are not suited for a role in history and have therefore decayed into regression and even extinction.

(Schleicher, 1865, p. 27, quoted in Aarsleff, 1982, p. 295)

The next step in this sinister argument is that nations whose complicated languages provide evidence of unfitness for a role in history should be helped to exit from history. Perhaps this professor's reasoning was not used in wresting the prairies from the Comanches, Kiowas, Sioux, Apaches, Cree, and Blackfeet, but linguistic intolerance was certainly part of the winning of the West. Our German acquisition programme, by contrast, must bring into the arena for critical discussion a holism with humane values that avoids stereotyping and stigmatizing on linguistic grounds.

### 3.10. Bréal's semantics

On publication, Schleicher's organicist views with their chilling implications were opposed by Michel Bréal (1832-1915), who came from a French-Jewish family resident in Landau when it was part of the Bavarian Rhineland, and who suffered from anti-Semitism in France. He held the Chair in comparative grammar at the Collège de France for the last forty years of his life, and took a leading role in educational reform. Bréal is remembered today for his Essai de sémantique (1st ed. 1897), which developed his views about semantics, a word he first used in 1873 (defining it technically in 1883: la sémantique = the science of significations).

Besides raising the issue of what semantics is all about, Bréal has two other claims on our attention. First, he was the encourager and in part inspirer of the most seminal language theorist of modern times, Ferdinand de Saussure (1857-1913), whom he supported for a post to

teach philology at the École des hautes études in Paris from 1880 to 1891 (Aarsleff, 1982, pp. 13-17, 382-98). Second, Bréal resisted Schleicher's linguistic naturalism by stressing the mind-dependent, idea-based nature of language, a formulation in the Locke-Condillac-*idéologues* tradition:

Language has been called an *organism*, a hollow, deceptive word too freely lavished in the present day, and used every time that we want to dispense with the trouble of seeking for true causes. . . . Our forefathers of the school of Condillac [the *idéologues*] . . . were less far from the truth when they said . . . that words are signs.

(Bréal, 1964, pp. 248-90)

This insight puts us on the track of considering language in the light of semiotics, whose field is the structure of sign systems that send messages. Thus, in our autonomous acquisition programme, we have to consider how meaning is "signed" or "coded" in German, for example, through use of second person singulars and plurals (Du and Sie to indicate degrees of relationship, status order, and formality/ informality register).

For Bréal, the crucial issue in linguistics was to determine how languages meet the individual and social needs of speakers. In this regard, a key passage occurs in his 1891 essay, *Le langage et les nationalités*:

If the language is simultaneously modified in the mouth of an entire group of persons, that is not because the organs of speech in the same moment, in an entire population, undergo a radical change. In this simultaneous occurrence, there is a more humble and common reason, which is on the one hand the instinct of imitation and on the other hand the need to understand and to be understood. Speech is first of all a means of communication: it would lose the most essential of its functions if it ceased to serve for the exchange of ideas.

(quoted in Aarsleff, 1982, p. 383)

Language change is pictured here as occurring through imitation and the need to communicate, another version of the sociability imperative in language identified by Humboldt. This provides further theoretical direction for the sociolinguistic content and staging of autonomous German language programme.

### 3.11. Saussure and the general science of linguistics

Aarsleff finds in the last quotation from Bréal an anticipation of Saussure's distinctions between *langue* and *parole*, also between *synchronique* and *diachronique*, and generally that *la semantique* of Bréal was a form of *la linguistique générale*. To be sure, Saussure expressed these ideas with far more sophistication and in a connected form which has had a pervasive influence on twentieth-century linguistics and language acquisition theory and practice. In these fields, thanks to Saussure, there is now clarity about the need for synchronic work before inquiring into language change. *Parole*, as the "dynamic, social activity" of people speaking a specific language to each other at a given time and place, is the focus of careful attention. The arbitrary relationship between signs and what is signified is understood, with *langue* perceived as a "system of signs." In addition, the distinction between sequencing of signs in linear (*syntagmatic*) and associative (*paradigmatic*) relationships is applied usefully for the structural analysis of vocabulary and other aspects of language (Crystal, 1992, p. 407).

Essentially reformulating a principle that had been enunciated by Locke, as we have seen, Saussure was arguing that the relationship between any specific word and the mental image evoked by it is arbitrary, dependent solely on the conventions established within the system of signs constituting the language. In our day, Jacques Derrida (b. 1930) has pushed farthest the idea that languages stand alone constituting worlds of convention cut free from each other and

the world of external objects: "There is no outside-the-text" (Of Grammatology, 1976, p. 158). Some commentators claim that Saussure himself avoided such linguistic solipsism through conceiving there could be a science of *semiology*: a "systematic study of how meaning is conventionally generated by collective behaviour" (Latimer, 1989, p. 2).

If the confines of this thesis permitted a fuller discussion of twentieth-century linguistic theories, there could be review of the further development of Saussure's structural principles by such groups as the Linguistic Circle of Prague, founded by Roman Jakobson and N.S. Trubetzkoy in 1926, and the Copenhagen School led by Louis Hjelmslev who devised Glossematics, also the advances made by individuals such Charles Martinet expanding the notion of Functionalism, and Richard Montague working on the correspondence between the categories of syntax and semantics (Lyons, 1972; Ehreman, 1970; Lyons, 1972; Crystal, 1992, pp. 408-9). This would take the thesis into ever more refined theoretical distinctions drawn by linguists, however, and perhaps add to that endless history of theoretical conflict and the crisis of self-understanding which Legenhausen (1993) complained of in the field of SLA research. The main concern of the thesis remains that of uncovering the theoretical insights and modelling that will address the real problems of people trying through self-management to acquire additional languages.

### 3.12. Recent SLA theorizing

Finally, in pursuit of useful insights and models in this survey of theorists, this chapter acknowledges the importance of a constellation of studies completed within the last twenty years, which have psycholinguistic and sociolinguistic implications and applications. Both the mentalist and empirical traditions of language investigation are reflected in this work. A strong contribution has come from Stephen Krashen (b. 1941-), whose articles and books appearing

from 1978 up to 1985 elaborated, mainly on Chomskyan premises, the Monitor Theory (MT) covering child LA and adult, also natural (untutored), and instructed (tutored), SLA. As described by Freeman-Larsen and Long (1991, pp. 240-4), there are five parts to MT.

1. The Acquisition-Learning Hypothesis states that there two forms LA can take, acquired (untutored), referring to the operation of the subconscious processes in children developing control of L1 (really, a version of LAD); and learned (tutored), the result of a conscious process, resulting in a separate system of knowledge about L2, including simple grammar rules.
2. The Natural Order Hypothesis states that L2 rules are acquired in a predictable order, one that is not determined by complexity only, and that does not follow the order in traditional SLA teaching syllabuses.
3. The key Monitor Hypothesis covers the relationship between the learned system and the acquired one in L2 performance. The acquired one initiates utterance and the learned system monitors it, editing, correcting, and so on. It can be intrusive, and too much, or the wrong kind of conscious learning can inhibit L2 utterance, a case of overuse of the monitor.
4. The Input Hypothesis is the major claim of MT in stating that L2 is acquired through successful processing of extensive amounts of comprehensible input (CI). A deduction from the emphasis placed on CI is that speaking is regarded as the result not the cause of acquisition, and is pictured as emerging from growth in competence gained through comprehension of target language input.
5. The Affective Filter Hypothesis, formulated in the light of work by Dulay and Burt (1977), states that "affective factors" such as self-esteem, will to learn, and anxiety of the kind that spurs action can help promote but not cause L2 acquisition, and conversely

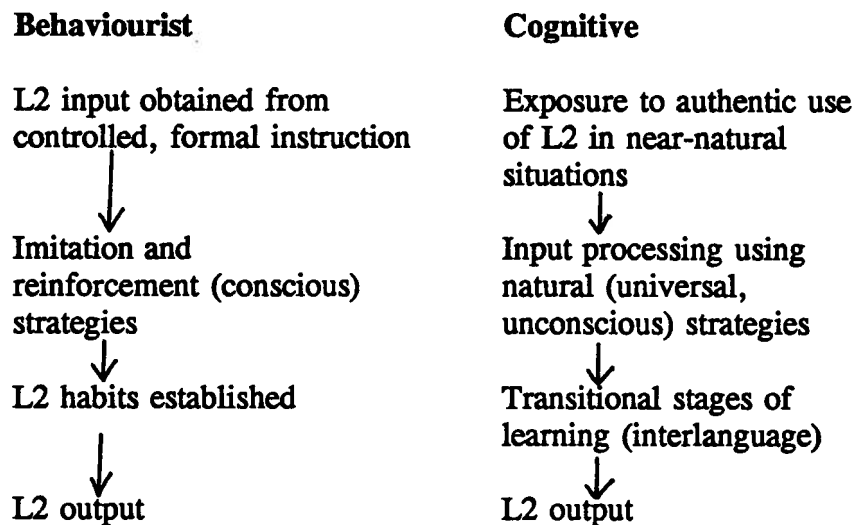


negative factors such as low self-esteem can "raise the filter" and block acquisition.

The Monitor Theory and Krashen's willingness to apply it in SLA teaching situations, also to claim that immersion programmes work because of the large amount of CI they provide in the form of content across the curriculum, has stirred up a great deal of controversy and attempts at proof or disproof of testable parts (Larsen-Freeman and Long, 1991, pp. 245-9, Crystal, 1992, pp. 372-3). Perhaps SLA research has now absorbed critically and made the best use possible of Krashen's hypotheses and classroom applications in passing on to newer theoretical formulations, of which the Multidimensional Model, in terms of the review by Larsen-Freeman and Long (1991, pp. 283-7), seems to have the greatest predictive power about SLA (Pienemann, 1981, 1989). However, at the time of the writing of the review, the Model was confined to morphology and syntax as opposed to Clahsen's claim that MT covered all acquisitional items. Important independent work on theorizing about the principles underlying utterance structures, using a conceptual, functional-pragmatic approach, has been done by Wolfgang Klein of the Max-Planck Institute for Psycholinguistics, Nijmegen (Klein and Purdue, 1988). This builds on earlier findings in research on German as L2, including the interesting point that it has to be recognised that parallel information is added to aural input when an L2 learner tries to formulate a grammar and vocabulary for the target language. This parallel information in an untutored L2 learner comes from his awareness of language situations: who speaks to whom, what gestures accompany this, and how hearers react. In tutored L2 acquisition, the parallel information is prepared in the lessons, but to be productive the preparation has to be in accord with the innate language processing principles (Klein, 1987, p. 53).

### 3.13 Summation

Looking at developments over the last forty years, it can be seen that SLA curricula have developed operating according to one or other of the following models:



In the light of critiques of SLA research and theoretical modelling, the cognitive model, which should be expanded to include compatible features from the Krashen Monitor Theory, the Multidimensional Model, and the Conceptual, Functional-Pragmatic Approach, would seem to have more explanatory power than its rival, especially through making room for the affective factors in learning (Krashen and Terrell, 1983), and should be taken as the guide for the autonomous German acquisition programme. Additionally, as far as the planning of this programme is concerned, capital should be made of the theoretical value in humanistic and holistic approaches to acquiring languages (Knibbeler, 1989; Crystal, 1992, p. 375). Examples of these are the Suggestopaedia outlined by Georgi Lozanov (1978), Caleb Gattegno's Silent Way (1972, 1982), and Beverley Galyean's Confluent Education (1977, 1983). Each has features that could profitably be built into an ideal programme for the self-directed acquirer of

German.

Historically, it is a long way from Comenius in Leszno, Elbing, and Sárospatak, working at the problems of the exiled Bohemians and Moravians learning Latin, and acquiring one way or another Polish, German, Swedish, and Hungarian. We have his theories with their insights and mistakes as sources to serve us, as well as those of his successors in theory and practice down the centuries. The next chapter examines how successful our contemporaries have been in devising three representative German textbooks and courses to exemplify a convincing philosophy of education, and to put students on the path of acquiring the German language.

#### 4. PERSPECTIVES ON GERMAN ACQUISITION CURRICULA: TRANSMISSION, TRANSACTION, TRANSFORMATION

Attention to the aesthetic aspects of the subjects taught would remind students that the ideas within subject areas, disciplines, and fields of study are human constructions, shaped by craft, employing technique, and mediated through some material. . . . Such an orientation to knowledge would reduce the tendency for students to regard the textbook as sacred and knowledge as fixed--not a bad outcome for a nation that prides itself on being a democracy.

Elliot Eisner

##### 4.1. Language textbooks and curriculum philosophy

This chapter turns from historical enquiry and analysis of theories to focus on three textbooks assigned presently or in the recent past as aids to acquiring German at the University of British Columbia, reviewing their "craft," "technique," and the "material," as Eisner (1985) suggests we should do when exploring "aesthetic modes of knowing," that is, seeking to find significant form in relation to content in the objects of our disciplined attention. For such a review, it is useful to keep in mind the framework of systematized ideas about teaching and learning offered in the "analytic didactics" of Comenius, that is, the tenth chapter of the Methodus linguarum novissima (Jelinek, 1953). The aim here has been to determine not only from reading from the textbooks, but also from the personal experience of others and this writer's, the orientation to curriculum of their compilers. In Chapter 2, it is explained how the

curriculum philosophy of Comenius expressed in his textbooks could be viewed as anticipating in certain important respects the "transformation" position outlined by Miller and Seller (1990), and here this formulation will be drawn on further, as well as "analytic didactics," and the formulation of the "transmission" and "transaction" positions (pp. 5-9) to advance the discussion by seeking a ground for a German acquisition programme. In addition, by drawing on theories about language and the acquisition of languages, the textbooks will be analysed as examples of the contrastive, audio-lingual, and communicative approaches (Larsen-Freeman and Long, 1991, pp. 52-61; Crystal, 1992, pp. 372, 374). In presenting criticism of these textbooks, this chapter prepares the way for what is offered in Chapter 5 as the outlines and ideal details of a self-directed German acquisition programme.

#### 4.2. Transmission philosophy and the contrastive approach

The first specimen to be considered is Stephen Clausing's German grammar: a contrastive approach. The date is ostensibly 1986, but there is a pre-history going back to 1951 as revealed by the Library of Congress Cataloging-in-Publication data. The grammar content is of the traditional, prescriptive, pre-Chomskian type and has not been modified by thinking since the late 1950s focused on the "transformational-generative" model. The textbook is intended to supplement a "typical curriculum of reading, conversation, and some writing" through reviewing "grammar traditionally taught in first-year texts" and providing some additional grammar material. The student targeted is thought of as somebody who will inevitably make mistakes, and who has to be shown how German and English contrast as languages. It is assumed from the outset that problems will arise through English "interfering" with German. The textbook assumes that the teacher will be firmly in control, imparting irrefutable knowledge to the student regarding correct German. It is further assumed that this textbook must correct errors made in

previous instruction given to the student. To some extent, it is assumed that the student will find a sufficient reward when learning the grammar in this source in the assurance of being sent "prepared" into more advanced courses. To be sure, this reward is announced negatively: "to neglect this aspect of the grammar is to send the student ill-prepared into more advanced courses" (Clausing, 1986, p. iii).

It is further assumed that all students make similar errors and that learning proceeds the same way for all students. The student is obviously regarded as an error-prone client who must be shown the actual mistakes that arise when English word patterns are transferred directly into German:

the use of incorrect German examples is an integral part of the contrastive approach, because it shows in a concrete form the practical manifestations of the theory. All of the errors shown in the book are adaptations of student errors.

The standpoint of the textbook is omniscience about these matters: "the student is made aware of potential mistakes, understands why they occur, and knows how they can be corrected" (pp. iii-iv).

The author tries to meet the objections that some teachers have to dwelling on incorrect German. His claim is that, "students are exposed to incorrect German in any class . . . . Rather than avoiding any mention of these errors, it makes better sense to develop the student's ability to recognize and correct them." Throughout the preface and the entire textbook there is an obsession with error, and an unabashed atomistic approach to make the material "digestible": "each chapter can be split up into numerous subunits," but no overview is provided. There is one attempt to elicit the student's own thinking with respect to the introduction into many chapters of a Gedankenproblem (thought problem), which asks the user to go beyond the material in the text and draw "conclusions . . . regarding more advanced topics" (p. iv). The

insistence on the notion of the student as client is extended from the grammar content to vocabulary in the last one-third of the book which focuses on "lexical interference" (pp. iv-v). A final point suggesting the student is regarded as an error-prone infant is the mention of the need for the user to be "weaned from the artificiality of the glossary to the real-world problem [sic] of having to use a dictionary for reference." We are to imagine that up to the bracing experience of reading this textbook, the student-infant has happily sucked on the glossaries provided, but will now have to face the stern and problem-beset reality of feeding on dictionaries. A different viewpoint from Clausen's would recognize that multimedia resources such as the CDROM programmes can now make interactive work with dictionaries on computers exciting and creative for language acquirers.

Following the preface, the author has some categorical advice to the teacher in the section entitled, "How to Use This Book":

Incorrect German sentences used as examples are identified as incorrect by an asterisk.

The teacher should explain this convention to the class before beginning the book. The student must also be told what to do with the "What's wrong with these?" exercises.

Specifically, the student should do the following:

- a. identify the mistake
- b. correct the mistake
- c. explain why the mistake occurs.

Perhaps to take away somewhat from the negative, error-correction tone of the book, the author suggests that it is "teacher-friendly" (pp. v-vi). This is explained in terms of the topics being clearly stated and concisely defined, also the goals for exercises being expressly indicated. The "friendliness" seems to reside in the fact that the teacher does not have to do much independent thinking. One implication is that the teacher is in unquestioned charge of the classroom,

ordering drills, assigning exercises, correcting inevitable errors, and judging the student's work on a categorical right or wrong basis. There is no allowance for creative learning situations, and being "teacher-friendly" is a mask for reinforcing teacher autocracy.

This textbook came to the writer's attention in discussions about its use in the University of British Columbia's German 110, which is a course for students who have learned their German from parents or relatives (*Hausdeutsch*: untutored acquisition), but who do not have a tutored understanding of German grammar. There is no awareness expressed through the textbook of a specific learning situation for such students, whose existing appreciation of German's cultural matrix should be extended through multimedia experience and other means to show how language in use (Saussure's *parole*) connects with the language system (*langue*). It is incredible to this writer that this textbook, the only one assigned in German 110, does not have a single illustration, dialogue, or authentic text. Essentially, this textbook is a kind of chamber of German grammatical horrors. In novels by Dickens, for example, Great Expectations and Dombey and Son, one comes across characters having nightmares in which they are subjected to the kind of curriculum laid out by this textbook.

Clausing makes only partial use of the method of contrastive analysis going back to William G. Moulton's book, Sounds of English and German (1962), which in turn builds on Lado's already-mentioned work, Linguistics across cultures (1957), and ultimately Viëtor's polemics (1882) and study of German, French, and English phonetics and orthoepy [relating to correct or accepted pronunciation, OED] (1884, 1927). Essentially, linguists focusing on contrastive analysis have made a distinction between transference and interference in the relationship of the native language (L1) to the target language (L2). Clausing concentrates on negative transfer and pays no attention to positive transfer, which would demonstrate to the student how knowledge of English, for example, helps in the useful expansion of knowledge of



German through stages of an "interlanguage" (see Selinker refs.; also Gass, Madden, Preston, Selinker, 1988; and Singh, 1993). Probably Clausen's textbook approach was heavily influenced by the kind of thinking which found expression in Robert Di Pietro's study, Language structures in contrast (1971), which was strongly criticized in the 1970s (Kramsch, 1992, pp. 56-7). Recent research has shown that analyzing errors is a very complex business, requiring attention to many factors other than cognitive ones (Crystal, 1992, p. 372).

In terms of curriculum theory, we have in Clausen's case a "transmission" oriented textbook (Miller and Seller, pp. 5-6), based on a behaviourist model of learning, with a concept of a one-way transfer of competence from teacher to student via error correction. In Eisner's terms, the craft is severely restricted as are the techniques and material, and as a result the "aesthetic modes of knowing" are neglected. The approach seems likely to turn students off German, and is unlikely to encourage the growth of teachers. Some, indeed, will become bored with the highly restricted approach. From the point of view of Comenian "analytic didactics," Clausen does not do his utmost to "guard against aversion, the most insidious poison in studies" (Jelinek, 1953, p. 215). It could also be mentioned that the whole approach represented by Clausen's textbook smacks of authoritarianism, and in it there is little or no opportunity for a woman's point of view on language and culture.

#### 4.3. Transaction philosophy and an evolved audio-lingual approach

The next book to be examined is Deutsch heute: Grundstufe (3rd ed. 1984: German today: elementary level), which until 1989 or so was the textbook for German 100 at the University of British Columbia. The introduction to this provides some evidence about a "transaction" orientation towards curriculum on the part of the authors: Jack Moeller, Oakland University, and Helmut Liedloff, Southern Illinois University, also Barbara Beckman-Sharon, University of

Puget Sound, who provided annotations. In brief, the transaction position accepts that the student is capable of independent thought and of engaging in dialogue with the curriculum regarded as a process involving problem solving (Miller and Seller, pp. 6-8).

The associated learning model for language acquisition is the cognitive one illustrated at the conclusion of Chapter 3. This writer was particularly interested in Deutsch heute as a textbook because a woman was partly responsible for it, and one of the themes presented was the social position of women. In line with the outlook on language study in the Humboldt-Sapir tradition, the authors state that they wish students to acquire authentic German, both in the spoken form (audio-lingual emphasis) and the written one. Also, as sources for authentic, present-day written German, three contemporary short stories are introduced, two by women: Helga Novak's "Schlittenfahren" (Sleighriding) and Christa Wolf's "Ich geh' da nicht mehr hin" (I won't go there again). This seems to represent the will to introduce for students and teachers, in their joint work, the desirable element of experiencing the "aesthetic modes of knowing" called for by Eisner (1985). Such experience could arise from hearing the stories read well, and from articulating and sharing responses to them considered as literary texts, with precise adjustment of form to content, however "positioned" or "negotiated" as to meaning (Nolden and Kramsch, 1994, p. 3). Here is a welcome move beyond the sentence-grammar kind of syllabus found in Clausing's book.

Further, the need to introduce students to contemporary life and culture in German-speaking countries is registered in this textbook, and this can be connected with a conscious or unconscious acknowledgment of the importance of Bruner's LASS. As well, the newer generative grammar of Chomsky and his colleagues seems to be made part of the structures introduced in the reading and reinforced in the grammar topics per se and exercises. Here is a major difference from the transmission-oriented textbook previously discussed. A further

difference is the pervasive use of photographs, line-drawings and Realia, as Comenius urged long ago:

The study of language should not be an end in itself but should lead to the study of things, for wisdom consists in the knowledge of things, not words.

(Jelinek, 1953, p. 77)

The result of attention to this feature in Deutsch heute is to convey imaginatively the experience of operating in a world of German discourse.

Miller and Seller (1990, p. 7) suggest that the thought of the American pragmatist John Dewey (1859-1952) is a major influence on the transaction philosophy of curriculum. In his book, Experience and education (1938), said to be one of Dewey's major statements, he emphasized that for an action-oriented education, suitable for a democratic society, certain features should be present: the role of organized experience, continuous and analysed experiment, purposeful learning, and freedom to know and do within a framework of clearly established social values. Above all, Dewey stressed that true learning was done in a school established as a community of learners of whom the teacher was a member acknowledged as a leader because of experience, training, and a far-seeing outlook.

The contemporary American philosopher Richard Rorty (b. 1931) has re-examined Dewey's pragmatism to demonstrate how its conclusions regarding cultural empowerment connect with the phenomenological-hermeneutical tradition in European philosophy (1978, pp. 239-58). One can certainly discern a phenomenological thrust (van Manen, 1990) in the Dewey-type presuppositions of Deutsch heute (intro. pp. 6, 10), such as the steady reliance on personal experience of the students themselves as a basis for the curriculum, and placing the highest value on the freedom of students to express themselves.

It will be recalled from Chapter 2 that the general method for learning languages

advocated by Comenius (1896, p. 358) involved "hearing, reading, re-reading, copying, imitating with hand and tongue, and doing all these as frequently as possible." In practice, Deutsch heute encompasses this, and adds the practical audio-lingual dimension, by linking the textbook itself to a workbook/lab manual, a set of recordings on cassettes, a tapescript, and a test bank. There is considerable use of the dialogue format, which is a transaction idea, and the textbook in general fosters "communication practice and vocabulary development," through the oral exercises including questions on the dialogues and activities enabling the students to participate (Moeller et al. 1984).

Though this feature of the textbook raises the idea of communication, I would say that in language acquisition terms Deutsch heute is not following a communicative approach so much as enlarging possibilities of the audio-lingual approach, that is, setting out ways of acquiring competence in hearing-speaking and ultimately writing German through careful sequencing of lessons and exercises. Shortly, in dealing with a further textbook, Deutsch aktiv, this chapter offers a description of the of the communicative approach which seems to incorporate some features of the transformational curriculum position.

Returning to the transaction position with respect to language acquisition, Dewey's stress on the organic connection of education and experience can be fittingly illustrated from Deutsch heute's treatment of contrastive procedures. Whereas Clausing's German grammar mercilessly drilled students in a series of alleged inevitable errors, Deutsch heute states that "German is often contrasted with English to clarify the structure of both" (intro. p. 6). We do not have the further insight of the recognition and use of an "interlanguage" as a natural step in control of L2, but this is perhaps on the horizon of the transaction textbook.

Dewey wrote that education arises from the "growth dependent on the presence of difficulty to be overcome by the exercise of intelligence." He added that the teacher is

responsible for two things:

1. seeing that the problems used to stimulate thinking grow out of experience in the present;
2. ensuring that the nature of problems is such that learners are aroused to engage in a vigorous quest for further information and the creation of new ideas (Dewey, 1938, p. 79).

By the same token, Deutsch heute builds vocabulary through drawing on standard word frequency lists (those of Kaeding, Bakonyi, Schultze, Michéa, Wängler, Meier, are available: Oehler, 1966) to give readers a mini-repertoire of words found most useful in everyday German discourse. Also, exercises are prescribed based on lists of the cognates and affixes of a highly synthetic language to generate the capacity to expand vocabulary as required by real-life needs. Dewey's point about the development of learner's autonomy is pressed through the encouragement to students to talk to each other in German. The outcome of a course following Deutsch heute could be the student walking from the classroom, flying to Frankfurt, claiming luggage from a monolingual attendant, similarly asking directions, buying a Stein of beer, and in general transacting language business with some confidence in "survival German."

Summing up this writer's view of Deutsch heute, it can be affirmed that it points the way to effective acquisition of hearing-speaking German, with some anticipations of the aesthetic delight of reading a text as the creative and productive enterprise of making sense of "indeterminacy" (Nolden and Kramsch, 1994, p. 5). The cultural annotations are genuinely helpful and introduce students imaginatively to many of the salient features of life in German-speaking countries.

A criticism, nevertheless, is that altogether too much is prescribed by this textbook as the content of a course based on it, and there are not enough invitations for students and teachers to bring in their own imaginative resources to create together a truly exciting curriculum. If

Dewey and Rorty's lights are followed, as well as newer critical theory about negotiating meaning and value cross-culturally through language, a "text"-book could lay the groundwork for a transactional curriculum in language acquisition. It would have to be organized, however, to invoke the concept of the "play" of meaning that, from Comenius (1656) down to Derrida (1978), has in so many different senses fascinated thinkers. As well, it would have to be a more open-ended production even than Deutsch heute.

#### 4.4. Transformation philosophy and the communicative approach

A claim that can be made for Deutsch aktiv, the third textbook to be analysed, is that in certain important respects, it moves towards a transformational philosophy of curriculum. In Chapter 2, this position, as outlined by Miller and Seller (1990, pp. 8-9), was associated with the larger aims of Comenius' pansophic vision of education, and it was noted how these conflicted with the Cartesian agenda for obtaining and preserving scientific knowledge. To be sure, given the usual constraints of language courses, Deutsch aktiv does not aspire to the aims of social change or privileging the environment. Nevertheless, with regard to philosophical criteria influencing content, it connects with the transformation disposition (Miller and Seller, 1990, p. 189):

1. personal and public knowledge are given equal priority in content;
2. content is personally appropriated by learners, and this can lead to personal and social transformation;
3. content is integrated with cognitive, affective, and psychomotor domains and learning processes;
4. knowledge gained is viewed in terms of relationships in a holistic way.

The compilers of Deutsch aktiv Neu--Ein Lehrwerk für Erwachsene 1A (New active German--

a manual for adults: 8th ed., Berlin and Munich: Langenscheidt, 1993) are Gerd Neuner, Theo Scherling, Reiner Schmidt, and Heinz Wilms, also Wolf Dieter Ortmann (phonetics). Neuner, who is the senior author, teaches in the German Faculty of the University of Kassel's University College, and has a special responsibility for developing German distance learning programmes. Theo Scherling is an expert on drawings and lay-out for book production (Scherling and Schuckall, 1992), and must be credited with the degree to which the textbook has visual appeal, and the success of the integration of verbal German language content with cartoons, diagrams, line-drawings, and photographs. The language acquisition approach is the communicative one, which developed in Europe in the 1970s and 80s, as an advance on audio-lingual learning. According to Robin Fawcett (1991), the term "communicative teaching" was first used publicly in the title of a seminar, "The communicative teaching of English," at the third International Congress of Applied Linguists at Copenhagen in 1972. The name became attached to the so-called Functional/Notional Syllabus for language learning fostered in the early 1970s by the Council of Europe's research and development activity focused on implementing a European unit/credit system for adults acquiring additional languages. The approach is said to have become common in classrooms with the publications of Abbs and Freebairn's Starting strategies (1977), and to have owed little or nothing to TG (transformational-generative) grammar), but more to research on meaning sparked by Chomsky's Aspects of the theory of syntax (1965) and M.A.K. Halliday's work (summed up, 1985) on systemic-functional grammar (Melrose, 1991).

The basic idea is to change the language classroom conceived as a drill-hall into a site for oral communication activities. German contributors to humanistic psychology provided some guidance: for example, W.J. Revers who wrote on the psychology of boredom and how to transform it (1949); and J. Engelkamp who wrote about speech and emotion (1983). The German cultural context was also important for the emergence of the communicative approach.

The student revolts of the 1960s led to changes in teaching styles in the 1970s, moving away from the standard pontification of authoritarian male German professors towards the radical idea of fostering student-centred learning of which much is made in the autonomous LA programme idea (Legenhausen, 1993, responding to Holec, 1981, 1988). The emergence of the Green movement from the radical environmentalism of the 1960s encouraged a focus on such issues as the threat to nature and our lives from industrial resurgence managed by transnational corporations, and students and younger faculty wanted classrooms to be sites for democratic exchange about living issues not training grounds for the corporate life. A further area of the raising of consciousness of educators such as Neuner had to do with concern over foreigners coming to work and also seeking asylum in Germany. To be integrated into the community, some steps had to be taken to help them communicate in German. Traditional language teaching simply did not work with many contemporary students and the immigrants, and there was urgent pressure to develop the new communicative approach (Neuner, Kruger, Grewer, 1981).

Philosophic influences were also significant, such as the existentialism and phenomenological hermeneutics of Heidegger (1967). He offered some clarification of the difference between logical thinking and meditative or intuitive thinking, recognizing the use of both sides of the brain, a comprehension borne out by recent medical research (MacKey, 1987; Penrose, 1990), and he stressed our need to be open to Dasein (Existence), that is, our need to focus on spontaneous encounters with what exists in the immediate situation. Here was thoughtful support for allotting intrinsic value to the learning experience of communicative exchange, also to the existential co-operation of students and teachers in developing a curriculum.

To follow up these points about transformation aspects to Deutsch aktiv Neu, a translation is presented of the list of pedagogic strategies which the compilers recommend for



their version of the communicative approach, and which are parallel to recommendations Comenius makes in his "didactic analytics" for teaching "rapidly, agreeably, and thoroughly" (Jelinek, 1953, pp. 171-92. These strategies are described what accompanies Deutsch aktiv Neu, a Lehrerhandreichungen (teachers' manual: 5th ed. Berlin and Munich: Langenscheidt, 1992, p. 18):

1. Speech, accompanied by mime and gestures, should be part of playful exchanges between partners in flexible situations with the setting not limited to formal classroom rows of seats. The unexpected should be accepted, and learning possibilities, as they develop from the partner exchanges, should be fostered. Dialogue roles should be exchanged and the learners should select, improvise, and contribute to the scenarios. The teacher has to inject notes of realism into language exchanges as they develop to bring up the point that playful trial action is often quite different from real life situations.
2. Discussion should be encouraged during the lesson about the pictures, situations and texts incorporated in the textbook. As well, topics should be initiated about the lessons themselves, and learning about systematization in German, including usage of syntactic rules, idioms, and nuances of meaning of words as they are acquired.
3. The mother tongue of the learner should be used for comparisons, if possible. Informal talk between students in their mother tongue about the content of a lesson is part of the lesson. The teacher, however, should encourage the learners to be respectful of each other's points of view and let one person at a time have the floor.
4. Everyday cultural experiences drawn from either the German context or that of the native country should be made part of the lesson. For example, dating customs could well be part of the curriculum.
5. The selection of themes and content follows the theory of J. Engelkamp that language

material will be particularly well retained when it refers to one's person and, therefore, can be utilized in a much deeper way than impersonal material. This procedure can include the experiences and strategies of learners during the experience of acquiring a new language.

6. The main objective of the curriculum should be to encourage observation of features of the German language that are meaningful for learners and specified as such by them. Every effort should be made to encourage them to be curious about these features, and to stimulate them to compare, reflect, contemplate, and meditate in a focused way on what they are acquiring and experiencing. When such thought processes have personal value for learners, then these operations can be justly called action oriented.
7. Expression of curiosity about language and a desire to talk in the acquired language are forms of behaviour that are indispensable. They reflect not only interest in the object pursued, but also in communal learning and group participation, which includes the teacher.
8. Mistakes are viewed as productive and belonging to the process of learning. When boredom is evinced, it is to be regarded as the opposite of curiosity, and can be understood in the formulation of W. J. Revers as the "experience of a goalless ambition." The point is to overcome boredom by reorganizing language acquisition so that the learner can recognize a meaningful goal in the unfolding of the curriculum.
9. Anxiety over speaking at the opposite pole from delight in speaking is often the result of a mania for correction on the part of teachers. They have a wrong conception of the teaching that is appropriate for the communicative curriculum. Teachers have to learn to listen carefully to what the students are saying.

The points speak for themselves in demonstrating that the orientation is a student-centered

one, acquisition of German is viewed as a process, and there is a drive to arouse intrinsic motivation (Miller and Seller, 1990, p. 10).

Since one drive of the communicative approach represented by Deutsch aktiv is to make language learning a student-centred activity, it is appropriate to bring in some student criticisms of the textbook. To provide this, the findings are presented of a study completed on 4 December 1992 by a graduate student, Peggy Reimchen. The study is based on questionnaires answered by U.B.C. German 100 enrollees that Winter term. Whereas the textbook is wholly in German to provide a holistic, immersion experience in the language, the students expressed dissatisfaction with this feature, and wished to be led through explanations in their native language of English. They wished to have more straightforward grammar presentations and reviews at the end of each chapter, also a more logical approach to what was to be learned. In short, they wanted a more structured approach to language learning. They expressed some doubts that the communication exercises led successfully to the production of German in the context of a non-German-speaking country. Put another way, they felt that immersion tactics for learning L2 worked best when the setting was the L2 culture.

At this stage, some personal experience of this writer is offered in the spirit of van Manen's project (1992) of a "human science for an action sensitive pedagogy." For half of the Spring term of 1993, it was my responsibility to assist a German 100 instructor, Ms. Christina Jahn, who used Deutsch aktiv as the class textbook. Usually, my job was to help to set up role-playing and encouraged interaction among the students, also to answer their questions about features of German grammar and expression.

One evening the class was in my sole charge. It became clear to me that Deutsch aktiv is only a partial blueprint for the communicative approach if transformation in education is to be the goal. Together teachers and learners have to develop the curriculum. One of my ideas

was to take a picnic scenario from the textbook, and convert it with the students' help into a picnic at which familiar Canadian foods would be eaten in the familiar setting of Wreck Beach.

In passing, the students learned the vocabulary for the unfamiliar food of the German picnic setting, also the German forms of polite request for food and other wants. That same evening a relay race game of learning names of body parts was organized. The students spoke about how much they looked forward to the classes because of the fun they had together. It was noticeable that as the term went on they seemed to lose their inhibitions about producing German, but in retrospect it has struck me that it needs great skill, experience, confidence, and enthusiasm on the part of the teacher to launch out on and sustain the adventure of developing a communicative approach curriculum inspired by the transformation philosophy.

One objectionable aspect of Deutsch aktiv is the sexist bias. Men are always portrayed in positions of authority: teachers, policemen, dentists and doctors at work, etc. Women tend to be portrayed in house-bound roles, and the drawings, depicting over-bosomed and big-buttocked females--a German stereotype. The editors are all male, and the humour they employ seems to be meant to appeal mostly to males.

Also, in the textbook there is very little that is connected with the spiritual side of human nature. Texts and pictures tend to be confined to a low level of human experience. The words and illustrations could aspire to higher aesthetic and moral levels, bringing in contemporary issues important for the German-speaking countries, and, indeed, humanity.

Much can be learned from the communicative approach and from a textbook such as Deutsch aktiv for structuring an autonomous German acquisition programme. However, it is also necessary to take into account a post-communicative approach dimension to SLA. Appendix B presents the results of an effort to cover this topic.

## 5. ACQUIRING GERMAN BY SELF-DIRECTION

Und pflanzt' es wieder

Am stillen Ort;

Nun zweigt es immer

Und blüht so fort.

Goethe

[And (I) planted it again in that quiet place; now it keeps putting out shoots and grows continuously.]

### 5.1. Autonomous German acquisition in a language centre

The autonomous German acquisition programme proposed by this thesis should be offered under the auspices of the kind of Centre for Intercultural Language Studies proposed by Jörg Roche and his colleagues in modern languages at U.B.C. (Roche, 1994b). It is anticipated that the clientele would be students and possibly faculty and members of the public who wish to have some command of German for professional or private reasons, and do not have the time to commit to regular classroom attendance, also those who find that they learn better on their own. Experience of obtaining a university education over a number of years doing part-time studies when holding a job tells this writer that working women and or mothers would find self-directed learning suitable for their needs.

## 5.2. Staging of the programme

In the light of the discussion of Comenius' theories (Chapter 2) and those from linguistics and applied linguistics reviewed in Chapter 3, the programme would be modelled as follows.

### **COGNITIVE PATH MODEL**

Exposure (texts, tapes, videos) to comprehensible German  
input (Monitor Theory) on intercultural lines



Input processing, relying on subconscious LA processor

(Universal Grammar Theory) to sort grammar coding initially



Transitional stages of learning, with simple grammar exercises, games, making booklets,  
videos (Interlanguage Theory, Multidimensional Model, and Conceptual, Functional-  
Pragmatic Approach)



German output speaking: late in the programme--Mackey New Brunswick Model)

The following are the main points to be incorporated in the projected design:

1. The programme would make the most of the salient features of Mackey's model, but it would have as a working base a book such as Deutsch aktiv Neu, Lehrbuch 1A, the current, successful textbook for German 100 using the communicative approach, as discussed in Chapter 4.
2. Its chapters would be transformed, however, into a form suitable for self-study, assuming that the technical resources of the Language Centre would be available for the self-directed students.

3. The transformation would involve preparing new pages of text with modified and new illustrations, taking the students from zero vocabulary to self-identification in German (Chapter 1) and introducing essential grammar points in Chapter 2, such as subject-verb-object relationships (multidimensional Model), and first steps towards declension and conjugation practice, then forward in a carefully staged way to a mini-vocabulary expressive of simple wants and wishes and possessive relationships, also of personal settings (by Chapter 8).
4. At first, grammar points would be presented in English, because self-study students need time to grasp the German grammar vocabulary. The graded and illustrative procedure of Comenius' VIA manuals would be followed to bring in the German vocabulary. Grammar would always be contextualized.
5. Error correction in exercises would be light and done through computer feedback procedures, with as much humour as possible. The aim would be to encourage automaticity in producing error-free German expression.

### 5.3. Use of pictures

In modifying existing illustrations and introducing new ones, the sexist bias and stereotyping of Deutsch aktiv neu would be avoided. The aim would be to follow more of the possibilities Scherling and Schukall open up for such areas as Landeskunde in their book, Mit Bildern lernen (1992).

Also, the principles outlined in Andrew Wright's book, Pictures for language learning (1989), would be followed to give the pictures of the German programme textbook a leading role in the following stages:

1. pre-reading and pre-listening, i.e., providing a visual focus to create a sense of purpose

and involvement before actual engagement with eye on written text and ear hearing sound text;

2. during reading and listening, to help the learner keep in mind a context, bring out the visual referent of sounds and signs, also sometimes to set a task for completion during reading/listening, such as reviewing a sequence of pictures and possibly re-ordering them;
3. post-listening and reading, calling upon interpretive skills connected with the reading and listening, and requiring responses arising from the previously-gained understanding and cognitive challenge, e.g. after reading/listening work on food vocabulary, representation of a waiter serving a customer with a meal whose contents can be readily identified through memory of words just learned (Wright, 1989, pp. 160-1, 192).

#### 5.4. Study materials

The following points concerning study materials would be kept in mind.

1. It would be expected that the textbook would be prepared using desktop facilities in the Language Centre, and issued chapter by chapter so as to respond flexibly to feedback from students and counsellors.
2. Great care would be exercised in preparing the taped cassettes to go with the chapters, demanding from the Centre's technical staff the highest standards of reproduction of sequences emphasizing pronunciation, also close attention to timing of phrases and sentences to be repeated by the students in their audio work recording their versions of what they heard. This is a matter that William Mackey insists on so that the acoustical memory of students is stored with the best sound examples of standard German.
3. A further demand on the Language Centre would be for facilities, materials, and



technical support to produce a series of videos to go with each chapter, using Albert Fuss's approach of Blödsinn (craziness), as discussed in Appendix B below. The intention in the videos would be to grab students' attention and focus them on absorbing the German language in a penumbra of strong emotions communicated through visual and aural appeal.

4. The Language Centre would be asked to allow its use as a drop-in resource for the self-directed students. Certain times with a counsellor would be available in the Centre, to discuss specific problems with the programme or with learning attitudes in general.
5. The Centre's Library would be asked to lend German comics, periodicals, pamphlets, leaflets, books, tapes, and videos, especially to cover the feature of Landeskunde, knowledge of the German-speaking lands and culture, i.e. the matrix of the language (Schwendt, 1987).
6. The Dublin programme idea (Appendix B) would be borrowed of having meetings of native-speakers in the Language Centre and encouraging self-directed students to attend and try out what they were learning. Also, as at Sussex (Appendix B), the Centre would be asked to keep a list of native-speakers willing to be tutors for a fee or English lessons in exchange. Before they got their names on the list, it would be required that they understood the principles and philosophy of the self-directed programme, e.g. the staging of the introduction of components of German, the acceptance of a passive, input stage of reading, listening and watching before production (speaking and writing) is called for, and an ultimate emphasis, which would be taken over from the communicative approach, on "signalling comprehension and communication in personally meaningful terms" (Prokop, 1989, p. 56).

### 5.5. Interactive multimedia

A special feature of the programme would be the heavy use of interactive multimedia as follows.

1. The German programme would expect to make use of the CALL facilities of the Language Centre, not so much the dedicated packages of the past, but more the possibilities afforded by word processing, desktop publishing, data base provision, machine translation, and electronic communication (including intercomprehension), and interactive multimedia, also hypertext and hypermedia.
2. Word processing would be used by the students to produce print-outs of German texts highlighting spelling and vowel modification features. Desktop publishing procedures would be used by students to draw on creative writing ability and image processing skills in making posters and other artefacts such as concrete poems requiring language/visual response interaction.
3. Opportunities for dictionary work would draw on the bilingual CDROM storehouses. A machine translation package can provide a split-screen image allowing a learner to post-edit a machine-produced text and cull illegal grammar moves. The programme Prolog uses a parsing approach to focus on the syntactic level of language and require the user/learner to identify the acceptable parts of the noun and verb phrases, in essence calling on the implicit knowledge of LAD to be made explicit. Another programme, STORY, exploits the generative power of French grammar to build 56 interchangeable storylines with 16 grammar selections giving 896 possible texts, and thereby teaches an essential part of the morphology of French verbs. A similar programme could be created for German verbs.
4. A choice would be made of existing interactive multimedia language course packages to

support the programme. Some present menus are organized visually and aurally and allow users to choose the level of difficulty of tasks, such as buying a few objects from shops with a limited amount of money on a simulated walk through a French village. When a shop is reached, the facade is shown in a still, and the exercise begins between a real shopkeeper and the learner selecting requests spoken by an over-voice. A German counterpart surely could be created.

5. As discussed in Chapter 2, the ideas of Comenius about linking language learning to sensory appeal reflected in Orbis pictus would be brought up to date by using in the programme computerized systems combining textual and audiovisual information, also sound tracks. Hypertext does so in a two-dimensional manner: presenting, for example, annotated texts and intertextual commentary as in Ted Nelson's Xanadu project. Hypermedia operates in a three-dimensional manner: mostly non-linear and non-sequential in its presentation of information, and focusing on the association of ideas and the relationship between one item of information and another or others. Hypermedia programmes resemble maps more than guidebooks. The reader of a guidebook lets the author take him through the sequence of information keyed to the plan of the tour being described as the author sees it. The map user is an explorer, deciding where to go and what route to take. Within a hypermedia programme, guidebooks can be included, but the user is offered opportunities to take any route through the information and experiences available, and use guidebook-type information as needed. Hypermedia applications can control the new storage media for digital sound and images: optical discs, videodiscs, and video recorders. Some examples of hypermedia programmes already produced that could be converted for the German programme are tutorial modules dealing with pronunciation and grammar points; commentaries on literary texts and

grammatical features; and, bringing LASS on to computer screen, scanned image presentations of another country's culture with music and textual commentary (Hardman, 1988; Hardman and Sharratt, 1989; Hardman and Hardman, 1989; Cameron, 1989; Kenning, 1990, pp. 34, 120-2; Brierley Kemble, 1991, pp. 1-9, 145-60; Cotton and Oliver, 1993, p. 82). The advent of hypermedia has produced an interactive Orbis pictus.

#### 5.6. Emphasis on holistic, transformational philosophy

One lesson to be drawn from awareness of these exciting and far-reaching computer possibilities is that education should not give us a myopic view of the world arising from over-specialization. Ever stronger is the case for Comenius' holistic, pansophic vision. It would be suggested to students wishing to take the German self-directed language acquisition programme that they should see the process of completing it as an opportunity for their mental growth and unfolding of the creative imagination, also for making a contribution to our world community through comprehension of an additional language and culture and some skill in expressing themselves in that language.

Taking the advice William Mackey gave to the teachers running his programme in New Brunswick, there would be no need to probe into what German programme students were learning at any one stage of the programme, but everything possible would be done to maintain their enthusiasm while taking it. To guide users about the rate and quality of their progress, the programme would use a computerized test bank on the material presented, modelled on the instrument developed by Norma Wieland and Jörg Roche: Deutsch Aktiv Neu - Tests (1993), and being adapted by Bill Gilby for the computer as CALLGEN (Roche, 1994a, pp. 24-26). This procedure would allow for continuous self-evaluation as part of SLAP. After one year

from the entry point, I would ask them to take as a challenge examination the German 100 final, or equivalent agreed to by colleagues teaching regular sections of that course. Recent research on second language assessment through acquisition-based procedures should play a part in organizing, staging, and testing progress (Pienemann, Johnston, Brindley, 1988). Those passing would get credit for the course, and those who did not pass or did not wish to take an examination would get a certificate to say they had taken the course.

The chief goal for the students would be to help them become or confirm them in becoming lifelong, autonomous learners. As for the venture of the autonomous German acquisition programme itself, it would be satisfaction enough for the designer if the students on completing it had the feelings T.S. Eliot expressed in the "Little Gidding" part of Four Quartets:

. . . . Last season's fruit is eaten

And the fullfed beast shall kick the empty pail.

For last year's words belong to last year's language

And next year's words await another voice.

## Bibliography

### List of References

- Aarsleff, Hans (1982). From Locke to Saussure: essays on the study language and intellectual history. London: Athlone Press.
- Abbs, B., and Freebairn, I. (1977). Starting strategies. London: Longman.
- AILA '93 (1993). 10th World Congress of the International Association of Applied Linguistics: Congress Guide, Program, and Abstract Books (Vols. 1-4). Ridderkerk: Ridderprint Offsetdrukkerij B.V.
- Alt, Robert (1954). Der fortschrittliche Charakter der Pädagogik Komenskys. Berlin.
- Arnauld, Antoine, and Lancelot, Claude (1660). Grammaire générale et raisonnée. Paris: Chez le Petit.
- Backus, A. (1993, August 10). A reading course in Dutch. AILA '93, pp. 334-5.
- Bacon, Francis (1605). Advancement of learning. Works, popular ed., Spedding, Ellis, and Heath (Eds.). 2 vols. Boston: Houghton Mifflin, n.d. Pt.III, Vol. 1, pp. 3-118.
- Barbot, Marie-José, and Tauzer Sabatelli, Françoise (1992). Auto-apprentissage et intercompréhension. Le Français dans le monde, 249, 34.
- Bates, Tony W. (1994). The range of modern media in education and training: a world-wide overview. In Beck and Sommer (Eds.)
- Bayle, Pierre (1734-8). Historical and critical dictionary (2nd ed.), life by Pierre Des Maizeaux. 5 vols. London: J. J. and P. Knapton.
- Beck, Uwe and Sommer, Winifred (Eds.). (1994). LearnTec 93. Karlsruhe: Springer-Verlag.
- Bergler, Peter (1991). Wilhelm von Humboldt. Reinbeck bei Hamburg: Rowohlt rpt.
- Bhabha, Homi K. (1994). The postcolonial and the postmodern. In Bhabha, The location of culture. London: Routledge.
- Bhatia, T. and Ritchie, W. (Eds.). (forthcoming) Handbook of language acquisition. New York: Academic Press.
- Bickerton, D. (1981). Roots of language. Ann Arbor, Micch.: Karoma. (1984). The language bioprogram hypothesis. Behavioral and Brain Sciences, 7, 173-221. (1990). Language and species. Univ. of Chicago Press.
- Blair, R. W. (Ed.). (1982). Innovative approaches to language teaching. Rowley: Newbury.

- Bloomfield, Leonard (1933). Language. New York: Holt, Rinehart and Winston.
- Boas, Hans Ulrich (1993). Misconceptions and overinterpretations: Chomsky's views on Saussure, Anglistentag 1993 Eichstätt t/s.
- Bollnow, O.F. (1950). Comenius und Basedow. Die Sammlung Göttingen. 5, 141-53.
- Bréal, Michel (1883). Les lois intellectuelles du langage: fragment de sémantique. Annuaire de l'Association des Études grecques en France, 17, 132-42.  
 (1891). Le langage et les nationalités. Revue de deux mondes, 108, 615-39.  
 (1964). Semantics: studies in the science of meaning ( . Henry Cust, Trans.), intro. J. Whatmough. New York: Dover.
- Brierley, Bill, and Kemble, Ian (1991). Computers as a tool in language teaching. Chichester: Ellis Horwood.
- British Columbia Ministry of Education News Release (1994), 29 June, NR28-94: Provincial Language Policy Revised.
- Brown, Robert K. (1992). Max van Manen and pedagogical human science research. In William F. Pinar and William M. Reynolds (Eds.), Understanding curriculum as phenomenological and deconstructed text (pp. 44-63). New York/London: Teachers College Press.
- Bruner, Jerome (1985). Vygotsky: a historical and critical perspective. In James V. Wertsch (Ed.), Culture, communication and cognition: Vygotskian perspectives. Cambridge Univ. Press.
- Brunnerová, M. (1992). (Ed.). Ex libris: Comenius. Prague: Comenius Museum of Education.
- Buhlmann, R., and Fearn, A. (1979). NFT. Hinführung zur naturwissenschaftlichen-technischen Fachsprache. Teil 1: Werkstoff-kunde. Munich: Hueber.
- Cameron, Keith (Ed.). (1989). Computer assisted language learning. Oxford: Intellect Ltd./Blackwell.
- Campanella, Tommaso (1623). Civitas solis. Frankfurt: Wechel.
- Caravolas, Jean (1984). Le Gutenberg de la didacographie ou Comenius et l'enseignement des langues. Montréal: Guérin.  
 (1993). Comenius and the theory of language teaching. Acta Comeniana. 10, 141-62.  
 (1994). La didactique des langues: Précis d'histoire I, 1450-1700; Anthologie I, À l'ombre de Quintilien. Presses de l'Université de Montréal. (Vols. 1-2).
- Carey, Steven T. (1984). Reflections on a decade of immersion. The Canadian Modern Language Review, 41, 246-59.  
 (1991). Languages, literacy and education. [And] The culture of literacy in majority and



minority language schools. The Canadian Modern language Review. 47, 839-42; 950-76. (1993, August 13). Immersion, minority, and transitional bilingual programs. AILA '93, p. 718.

Chartier, Roger (1994). The order of books (Lydia G. Cochrane, Trans.). Cambridge: Polity Press.

Chomsky, Noam (1957). Syntactic structures. The Hague: Mouton.

(1965). Aspects of the theory of syntax. Cambridge, MA: MIT Press.

(1966). Cartesian linguistics. Cambridge, MA: MIT Press.

(1968). Language and mind. (Enlgd. Ed.). New York: Harcourt Brace Jovanovich.

(1970). The case against B.F. Skinner. New York Review of Books, 30 Dec., pp. 18-24.

(1980). Rules and representations. New York: Columbia Univ. Press.

(1981a). Principles and parameters in syntactic theory. In N. Hornstein, and D. Lightfoot (Eds.), Explanations in linguistics: the logical problem of language acquisition. London/New York: Longman.

(1981b). Lectures on government and binding. Dordrecht: Foris.

(1986). Knowledge of language. New York: Praeger

(1987). Generative grammar: its basis, development and prospects. Kyoto: Kyoto Univ. of Foreign Studies.

(1988). Language and the problems of language. Cambridge, MA: MIT Press.

(1991). Linguistics and cognitive science: problems and mysteries. In Kasher (1991).

Clahsen, H., Meisel, J., and Pienemann, M. (1983). Deutsch als Zweitsprache: der Spracherwerb ausländischer Arbeiter. Tübingen: Gunter Narr.

Clausing, Stephen (1986). German grammar: a contrastive approach. Fort Worth: Holt, Rinehart and Winston.

Comenius (Jan Amos Komenský)

**a) educational works**

(c.1613). Theatrum sanctae scripturae, Theatrum universitatis rerum (DJAK, Vol. 1, 1969), Thesaurus linguae Bohemicae.

(1628-32, Czech; 1657-8, Latin; 1896, English Trans. M.W. Keatinge) The great didactic. London: A. and C. Black.

(1631). Janua linguarum reserata. Leszno. DJAK, Vol. 11, 1973.

(1633) Porta linguarum trilingis, the gate of tongues unlocked and opened. (2nd ed). (T. Horn, Trans.) London: T. Cotes for Michael Sparkes.

(1633). Informatorium der Mutterschule. Leszno. DJAK, Vol. 11, 1973.

(1648). Methodus linguarum novissima. Leszno. DJAK, Vol. 15/II, 1989.

(1651). Schola pansophica. Sárospatak, DJAK, Vol. 15/III, 1992.

(1652). Eruditionis scholasticae pars prima, Vestibulum

... pars secunda, Janua

... pars tertia, Atrium. Sárospatak. DJAK, Vol. 15/I, 1986.

(1656). Schola ludus. Sárospatak. (1664). London: Thomas Parkhurst.

(1657). Didactica opera omnia [OO]. Amsterdam: Laurentius de Geer. DJAK, Vol.

15/I.VI, 1986.

(1658). Lexicon atriale Latino-Latinum. Amsterdam: Johannes Janssonius.

(1658; 1991, facsim. ed.) Orbis sensualium pictus. Nachwort v. Heiner Höfener. Dortmund: Harenberg Kommunikation rpt. DJAK, Vol. 17, 1974.

(1849). Didaktika, to jest umeni umelého vyncovani. Prague. DJAK, Vol. 11, 1973.

(1664). Ars oratoria [atrial work]. London: Roger Daniells.

(1953). Analytical didactic. (Vladimir Jelinek, Trans.).

University of Chicago Press.

#### **b) pansophic works**

(1637). Praeludia.

(1637). Prodromus. Oxford.

(1639). Dilucidatio. DJAK, Vol. 15/II, 1986.

(1642). A reformation of schooles. (Samuel Hartlib, Trans.) London: Michael Sparke.

(1643). Pansophiae diatyposis. Gdansk. DJAK, Vol. 14, 1974.

(1681). Janua rerum reserata. Leyden. (1989). German Trans. Erwin Schadel. Hamburg: Felix Meiner. DJAK, Vol. 18, 1970.

(1966). De rerum humanorum emendatione consultatio catholica. O. Chlup (Ed.). Prague: Academia. English Trans. A.M.O. Dobbie: Pampaedia. (1986). London: Buckland.

Panagua. (1987). Shipston-on-Stour, War.: Drinkwater.

Panglottia. (1989). Drinkwater.

Panegersia. (1990). Drinkwater.

Pannuthesia. (n.d.). Drinkwater.

Panorthosia, chaps. 19-26. (1993). Sheffield Academic Press.

(1992). Allweisheit: Schriften zur Reform der Wissenschaften, der Bildung und des gesellschaftlichen Lebens. Franz Hoffmann (Ed.). Berlin: Luchterhand.

#### **c) visionary works**

(1623, Czech; 1631, Latin; 1901, English Trans. Count Lützow). The labyrinth of the world and the paradise of the heart. London: Swan Sonnenschein and Co.

(1657). Lux in tenebris. [Amsterdam].

(1668). Via lucis. Amsterdam.

#### **d) religious and philosophical works**

(1647). Synopsis historica persecutionum ecclesiae Bohemicae. Leiden. (Comenius as co-author)

(1659). Cartesius cum sua naturali Philosophia a Mechanicis eversus. Amsterdam: Petrus Montanus. DJAK, Vol. 12, 1978.

(1660). De bono unitatis et ordinis disciplinae. Amsterdam. (1668). Unum necessarium. Amsterdam. DJAK, Vol. 18, 1970.

(1669). Continuatio admonitionis fraternae. Amsterdam.

(1977). Clamores Eliae. J. Novakova (Ed.). Kastellaun. DJAK, Vol. 23, 1992.

(1893). Haggaeus redivivus. Prague.

- (e) complete works  
(1969-in progress). Opera omnia / Dílo Jana Amose Komenského [DJAK] (Latin and Czech). A. Skarka et al. (Eds.). Prague: Czechoslovak Academy of Sciences.
- Condillac, Étienne Bonnot, Abbé de (1746). Essai sur l'origine des connoissances humaines. In Georges le Roy (Ed.), Oeuvres philosophiques (1947-51), (Vol. 1, pp. 3-118). Paris: Presses Universitaires de France.
- Cook, V. (1991). Second language learning and language teaching. London.
- Corbett, Margery and Lightbown, Ronald (1979). The comely frontispiece: the emblematic title page in England 1550-1660. London, Henley and Boston: Routledge and Kegan Paul.
- Coseriu, Eugenio (1988). Sprachcompetenz: Grundzüge der Theorie des Sprachens (Heinrich Weber, Ed.). Tübingen: Francke Verlag.
- Cotton, Bob and Oliver, Richard (1993). Understanding hypermedia: from multimedia to virtual reality. London: Phaidon.
- Cox, Robert W. (1986). Social forces, states, and world orders. In R. Keohane (Ed.), Neorealism and its critics. New York: Columbia Univ. Press.
- Crystal, David (1987). Child language, learning and linguistics (2nd ed.). London: Edwin Arnold.  
(1992). The Cambridge encyclopedia of language learning. Cambridge U.P. rpt.
- Dam, Leni (1993, August 12). Autonomy implemented [in Scandinavia]. Where and how to get started. AILA '93, p. 627.
- Darwin, Charles (1859). The origin of species. London: John Murray.
- Davies, Godfrey. (1949). The early Stuarts 1603-1660. Oxford Univ. Press.
- Derrida, Jacques (1976). Of grammatology. (G. Spivak, Trans.). Baltimore: Johns Hopkins U.P.
- Descartes, René (1639). Discourse on the method of rightly conducting the reason and seeking truth in the sciences. In F. S. Haldane and G. R. T. Ross (Eds.), Philosophical works (1955). (Vol. 1, pp. 79-130). New York: Dover.
- Destutt de Tracy, Antoine-Louis-Claude (1798). "Mémoire sur le faculté de penser," Mémoires de l'Institut National, Sciences morales et Politiques, (Vol. 1, pp. 283-450).
- Dewey, John (1938). Experience and education. (1967 rpt.) New York: Collier.
- Dickinson, Leslie (1987). Self-instruction in language learning. Cambridge University Press.  
(1992) Learner autonomy 2: learner training for language learning. Dublin: Authentik.

- Dienst, Karl (1986). Herborn. Theologische Realenzyklopadie (Gerhard Krause and Gerhard Muller, Eds.). Berlin/New York: Walter de Gruyter. 15, 66-9.
- Dieterich, Viet-Jakobus (1991). Johann Amos Comenius. Reinbek bei Hamburg: Rowohlt.
- Dijkstra, Ton and Kempen, Gerard (1993). Einführung in die Psycholinguistik. Bern/Göttingen.
- Di Pietro, Robert J. (1971). Language structure in contrast. Rowley: Newbury.
- Dilthey, W. (1987). Introduction to the human sciences. Toronto: Scholarly Book Services.
- Dulay, H. and Burt, M. (1977). Remarks on creativity in language education. In Burt, M., Dulay, H., and Finocchiaro, M. (Eds.). Viewpoints on English as a second language. New York: Regents.
- Ehrmann, Jacques (Ed.). (1970). Structuralism. Garden City, NY: Anchor.
- Eisner, Elliot (1985). Aesthetic modes of knowing. In E. Eisner (Ed.), Learning and teaching the ways of knowing. Eighty-fourth year book of the National Society for the Study of Education (pp. 23-36). Univ. of Chicago Press.
- Ellis, Rod (1994). The study of second language acquisition. Oxford Univ. Press.
- Engelkamp, J. (1983). Sprache und Emotion. In Euler and Mandl (Eds.), Emotions Psychologie (pp. 262-7). Munich.
- Fawcett, Robin P. (1991). Foreword to Melrose, Robin (1991).
- Ferguson, C. A., and Snow, C. E. (Eds.). (1979). Talking to children. Cambridge U.P.
- Feilberg, J. (1993, August 10). The development of interactive patterns in three mother-child dyads. In AILA '93, p. 217.
- Fichte, Johann Gottlieb (1967). Reden an die deutsche Nation. München.
- Forsyth, Allan (1990). Projet expérimental en anglais langue seconde à l'élémentaire, au Nouveau-Brunswick. Education Canada, 30, 23-29.  
(1993, Nov.) Language acquisition management: ESL in New Brunswick. Paper presented at Goethe Institute, Augsburg.  
(1994, Apr.) An automated self-directed multimedia program of modern language acquisition. Paper presented at the Zukunftsforum V: Sprachen Lernen-Menschen-Verstehen, Vienna.
- Frenschkowski, Marco (1993). Musonius. Biographisch-Bibliographisches Kirchenlexikon. Herzberg. 6, 393-4.  
(1994). Porphyrios. BBK. 7, 839-48.  
(to appear). Plutarch. BBK.

- Fuss, Albert, Jambrina, Felipe, and San Miguel, Angel (1981, 1985, 1987, 1988). Que barbaridad! Einführung in die spanische Sprache. [Four-part textbook] Tübingen: Niemeyer.
- Gaetagno, Caleb (1972). Teaching foreign languages in schools: the silent way. (2nd ed.). New York: Educational Solutions.
- (1982). Much language and little vocabulary. In R. Blair (Ed.), Innovative approaches to language teaching. Rowley: Newbury.
- Galyean, Beverley (1977). A confluent design for language teaching. TESOL Quarterly, 11(2), 143-56.
- (1983). Mind Sight: Learning Through Imaging. Long Beach: Ken Zel.
- Gass, S., and Selinker, L. (Eds.). (1983). Language transfer in language acquisition. Rowley: Newbury.
- Gass, S., Madden, C. G., Preston, Dennis, and Selinker, L. (Eds.).
- (1989). Variation in second language acquisition. (2 vols.). Clevedon: Multilingual Matters.
- Gathercole, I. (Ed.). (1990). Autonomy in language learning. London: CILT.
- Genesee, F. (1983). Bilingual education of majority-language children: the immersion experiments in review. Applied Psycholinguistics 4 (1), 1-46.
- (1987). Learning through two languages: studies of immersion and bilingual education. Cambridge, Mass.: Newbury.
- (Ed.). (1994). Educating second language children: the whole child, the whole curriculum, the whole community. Cambridge Univ. Press.
- Givon, Talmy (1984, 1990). Syntax: a functional-typological introduction. Vols. I-II. Amsterdam.
- Halliday, M. A. K. (1985). An introduction to functional grammar. London: Arnold.
- Hardman, Linda (1988). Hypertext tips: experiences in developing a Hypertext tutorial. People and Computers. IV.
- Hardman, L. and Sharratt, B. (1989). User-centred Hypertext design; the application of HCI design principles and guidelines. Proc. of Hypertext II Conference. York.
- Hardman, L. and Hardman, D.M. (1989). Lost in Hyperspace: cognitive mapping and navigation. In McAleese, R. (Ed.). (1989).
- Harris, Randy Allen (1993). The linguistic wars. New York: Oxford U.P.
- Hatch, Evelyn (1978). Acquisition of syntax in a second language.
- In Jack C. Richards (Ed.), Understanding second and foreign language training: issues

- and approaches (pp. 34-70). Rowley: Newbury.
- Heidegger, Martin (1967). Existence and being. Intro. Werner Brock. Chicago: Gateway.
- Herder, Johann Gottfried (1966). In Hans Dietrich Irmscher (Ed.), Abhandlung über den Ursprung der Sprache. Stuttgart: Reclam.
- Holec, Henri (1981). Autonomy and foreign language learning. Oxford: Pergamon.
- 1987). The learner as manager: managing learning or managing to learn. In Wenden and Rabin (Eds.). (1987).
- Holm, J. Pidgins and creoles. Vols. 1-2. New York: Cambridge Univ. Press.
- Hughes, J. Donald. (1975a). Ecology in ancient civilizations. Univ. of New Mexico Press.
- (1975b). Ecology in ancient Greece. Inquiry. 18, 115-25.
- Huizinga, Johann (1938, Dutch; 1949, English Trans., 1971 rpt.). Homo ludens: a study of the play element in culture. Intro. G. Steiner. London: Paladin.
- Humboldt, Wilhelm von (1980). In Michael Bohler (Ed.), Schriften zur Sprache. Stuttgart: Reclam.
- Hutton, Patrick H. (1987). The art of memory: from rhetoric to psychoanalysis, Journal of the History of Ideas, 48, 371-92.
- Inglis, Fred (1994). Cultural studies. Oxford: Blackwell.
- James, C. (1980). Contrastive analysis. London: Longman.
- Janssen-van Dielen, A.M. (1993, August 10). Self-assessment and adult second language learning. AILA '93, pp. 213-4.
- Johnson, Donna M. (1992). Approaches to research in second language learning. New York and London: Longman.
- Jones, F.R. (1993, August 10). The learner as teacher: a fresh look at self-study. AILA '93, pp. 211-2.
- Kasher, A. (Ed.). (1991). The Chomskyan turn. Cambridge, Mass.: Blackwell.
- Kenning, M.-M., and Kenning, M. J. (1990). Computers and language learning: current theory and practice. Chichester: Ellis Horwood Ltd.
- Kettemann, Bernhard, and Wieden, Wilfried (1993). Current issues in european second language acquisition research. Tübingen: Günter Narr Verlag.
- Klein, Wolfgang, and Dittmar, Norbert (1979). Developing grammars:

- the acquisition of German syntax by foreign workers. New York: Springer.
- Klein, Wolfgang (1987). Zweitspracherwerb: eine Einführung. Frankfurt am Main: Athenäum.
- Knibbeler, Wil (1989). The explorative-creative way: implementation of a humanistic language teaching model. Tübingen: Günter Narr Verlag.
- Kramsch, Claire J. (1992). Language acquisition and language learning. In Joseph Gibaldi (Ed.), Introduction to scholarship in modern languages and literatures (2nd ed., pp. 53-76). New York: MLA.
- Krashen, Stephen D. (1980). The input hypothesis. In J. Atlas (Ed.), Current issues in bilingual education (pp. 168-80). Washington: Georgetown Univ. Press.
- (1981). Second language acquisition and second language learning. New York: Prentice.
- (1982). Principles and practice in second language acquisition. Oxford: Pergamon.
- and Terrell, T. (1983). The natural approach. Oxford: Pergamon.
- (1985). The input hypothesis: issues and implications. London/New York: Longman.
- Kuhn, Thomas S. (1970). The structure of scientific revolutions (2nd ed. enlarged). University of Chicago Press.
- Kurfiss, J.G. (1988). Critical thinking: theory, research, practice, and possibilities. College Station, Tx: Assoc. for the Study of Higher Education.
- LaCapra, Dominick and Kaplan, Steven L. (Eds.). (1982). Modern European intellectual history. Cornell Univ. Press.
- Lado, Robert (1957). Linguistics across cultures: applied linguistics for language teachers. Ann Arbor: Univ. of Michigan Press.
- Lakoff, Robin (1969). Review of Grammaire générale et raisonnée. Language, 45, 343-64.
- Lambert, W. and Tucker, G. (1972). Bilingual education of children: the St Lambert experiment. Rowley: Newbury.
- Larsen-Freeman, Diane, and Long, Michael H. (1991). An introduction to second language acquisition research. London/New York: Longman.
- Las Casas, Bartolomeo (1598-9). Bericht [Brief account of the destruction of the Indies.] Frankfurt a.M.: Theodor de Bry.
- Latimer, Dan (1989). Contemporary critical theory. New York: Harcourt Brace Jovanovich.
- Legenhausen, Lienhard (1993). Vokabelerwerb im autonomen Lernkontext: Ergebnisse aus dem dänisch-deutschen Forschungsprojekt LAALE. Unpublished manuscript. (1994). 7 July, personal letter.

- Levelt, Willem J.M. (1989). Speaking: from intention to articulation. Cambridge Univ. Press.
- Lightbown, Patsy M. (1989). Can they do it themselves? A comprehension-based ESL course for young children. In Proceedings of the Conference on Comprehension-Based Second Language Teaching: Current Trends. Univ. of Ottawa.
- and Halter, R.H. (1989). Evaluation of ESL learning in regular and experimental programs in four New Brunswick schools. Vol. 2, 1987-8. Report prepared for Ministry of Education, New Brunswick.
- Little, David, and Grant, Aedamar (1984). Learning German without a teacher: a self-instruction programme for undergraduate students of engineering science. In D. M. Singleton, and D. G. Little (Eds.), Language learning in formal and informal contexts (pp. 89-99). Dublin: IRAAL.
- Locke, John (1988). P. H. Nidditch (Ed.). Essay concerning human understanding. Oxford Univ. Press pk. rpt.
- Lozanov, Georgi (1978). Suggestology and outlines of suggestopaedia. New York: Gordon and Breach.
- Lyons, John (Ed.). (1972). New horizons in linguistics. Harmondsworth, Mx: Penguin.
- McAleese, R. (Ed.). (1989). Hypertext: theory into practice. Oxford: Blackwell.
- MacKay, D. (1987). Divided brains--divided minds. In C. Blakemore, and S. Greenfield (Eds.), Mindwaves. Oxford: Blackwell.
- Mackey, William F (1965). Language teaching analysis. Bloomington, Ind.: Indiana Univ. Press.
- (1972). Kennedy Schule (Bilingual Education in a Binational School). Rowley: Newbury House.
- (1983). Sociolinguistics and the synchronic fallacy. Academiae Analacta (Royal Academy of Belgium), 45, 79-89.
- (1991a). Language diversity, language policy and the sovereign state. History of European Ideas, 13, 51-61.
- (1991b). Language education in bilingual Acadia: an experiment in redressing the balance. In Ofelia Garcia (Ed.), Bilingual education (pp. 239-49). Amsterdam/Philadelphia: John Benjamins Pub. Co. Pp.
- (1992a). La philosophie et la linguistique de Comenius dans le cadre des idées écologiques de notre siècle. Colloque International Comenius. Université de Montréal. T/S.
- (1992b). UBC Summer 1992 Modern Language Education 565/951 materials: Rationale for New Brunswick multimedia self-directed ESL programme.
- McMillan, James H. and Schumacher, Sally (1993). Research in education: a conceptual introduction. (3rd ed.). New York: Harper Collins.



- Maironi, Elisabeth (1993). Second and foreign language programmes in France: new perspectives. Unpublished master's thesis, Univ. of British Columbia, Vancouver.
- Meillet, Antoine (1916a). Obituary of Michel Bréal. Bulletin de la Société de Linguistique de Paris, 20, 10-19.  
(1916b). Review of Saussure, Cours. Bulletin de la Société de linguistique de Paris, 20, 32-6.
- Melrose, Robin (1991). The communicative syllabus: a systemic-functional approach to language teaching. London/New York: Pinter Publishers.
- Merzisen, Yves (1994), 13 July, letter from Chair to SCOLA membership.
- Michelet, Jules (1870). Nos fils. Vol. III, 146.
- Miller, John P., and Seller, Wayne (1990). Curriculum perspectives and practices. Toronto: Copp Clark Pitman Ltd.
- Milner, Andrew (1994). Contemporary cultural theory: an introduction. UCL Press.
- Moeller, Jack, Liedloff, Helmut, and Beckman-Sharon, Barbara (1984). Deutsch heute: Grundstufe. (3rd ed.: Instructor's annotated ed.). Boston: Houghton Mifflin.
- Moulton, William G. (1962). The sounds of English and German. Charles A. Ferguson (Ed.), Contrastive Structure Series. Univ. of Chicago Press.
- Moravec, H. (1989). Mind children: the future of robot and human intelligence. Harvard Univ. Press.
- Murray, Garold (1994, May). Autonomous learning of second languages in new Brunswick's ESL programmes for the public school system: a look at theory and practice. Paper presented at the Canadian Association of Applied Linguistics Conference, Vancouver.
- Narcy, J.-P. (1991). Apprendre une langue étrangère. Paris: Editions d'Organizations.  
(1993, August 10). Conceptual awareness and error correction. AILA '93, p. 315.
- Nelson, Ted (1987). Computer Lib/Dream Machines. Intro. Stewart Brand (rev. ed.). New York: Tempus.
- Neuner, Gerd, Kruger, Michael, and Grever, Ulrich (1981). Übungstypologie zum kommunikativen Deutschunterricht. Berlin/München: Langenscheidt.
- Neuner, Gerd, Scherling, Theo, Schmidt, Reiner, and Wilms, Heinz, (1988). Deutsch aktiv Neu: ein Lehrwerk für Erwachsene. Lehrbuch 1A. Berlin/München: Langenscheidt.  
(1992). Deutsch aktiv Neu. Lehrerhandreichungen. (5th ed.). Berlin/München: Langenscheidt.

- Nizegorodcew, Anna (1993). The structure of foreign language discourse and the use of communication strategies by low proficiency foreign language learners. In Kettemann and Wieden (Eds.) (1993).
- Nolden, Thomas, and Kramsch, Claire (1994). Foreign language literacy as (op)positional practice. Unpublished t/s.
- Nunan, David (1992). Research methods in language learning. Cambridge Univ. Press.
- Ochs, E. (1982). Talking to children in Western Samoa. Language in Society, 11, 77-104.
- Odlozilik, O. (1942). Comenius' life and work in its historical setting. In Joseph Needham (Ed.). The teacher of nations. Cambridge University Press.
- O'Malley, J. M., and Chamot, A. U. (1990). Learner strategies in second language acquisition. Cambridge Univ. Press.
- Oxford, Rebecca L. (1990). Language learning strategies. New York: Newbury House.
- Pais, Abraham. (1988). Inward bound: of matter and forces in the physical world. Oxford Univ. Press.
- Palouš, Radim (1993). Comenius aus Patočkas Sicht. In Ulrich Zwiener, Klaus Vieweg, and Werner Stelzner (Eds.), Schriften des Collegium Europaeum Jenense. Jena and Erlangen: Mayer Erlangen.
- Pánek, Jaroslav. Comenius: teacher of nations (Ivo Dvorak, Trans.). Prague: Orbis.
- Penrath, Gustav Adolf (1985). Heidelberg, Universität. Theologische Realenzyklopadie, 14, 574-87.
- Penrose, Roger (1990). The emperor's new mind: concerning computers, minds, and the laws of physics. London: Vintage.
- Piaget, Jean (1957). Préface, Pages choisies de J.A. Comenius. Paris: UNESCO.  
(1967). Introduction (reprint of 1957 Preface). John Amos Comenius on Education. New York: Teachers College press  
(1963). The origins of intelligence in children. New York: Norton.
- Pienemann, M. Der Zweitsprachenerwerb ausländischer Arbeiter-kinder. Bonn: Bouvier.  
(1989). Is language teachable? Applied Linguistics. 10, 52-79.
- Pienemann, M., Johnston, M., and Brindley, J. (1988). Constructing an acquisition-based procedure for second language assessment. Studies in Second Language Acquisition, 10, 217-43.
- Pinker, Steven (1994). The language instinct: how the mind creates language. New York:

William Morrow.

- Plato (1937). The dialogues. (B. Jowett. Trans.). Intro. Raphael Demos. 2 Vols. New York: Random House.
- Pokorný, Zdeněk (1992). Bibliografie knižních komenian 1945-1990. Prague: Comenius Pedagogical Institute.
- Price, Kingsley (1967). History of philosophy of education. The encyclopedia of philosophy. Paul Edwards (Ed. in chief). New York: Macmillan/Free Press, 6, 230-43.
- Prokop, Manfred (1989). Learning strategies for second language users: analytical appraisal with case studies. Lewiston: Edwin Mellen Press.
- Reimchen, Peggy (1992). Evaluation of Neuner et al., Deutsch aktiv Neu, GS1 Textbook and Workbook. Unpublished German 505 term paper t/s, Univ. of British Columbia, Vancouver.
- Revers, W. J. (1949). Die Psychologie und Langeweile. Meisenheim.
- Roche, Jörg (1989). Xenolects: the structure and variation of German foreigner talk. New York and Berlin: de Gruyter.
- (1994a). Einstufen, Testen und Prüfen: Deutsch aktiv Neu-Tests. Forum Deutsch, 6(1), 24-26.
- (1994b). Report on the establishment of a centre for intercultural language studies and instruction at U.B.C. Faculty of Arts. T/S.
- Roche, Jörg, and Wieland, Norma (1993). Deutsch Aktiv Neu-Tests. Abbildungen von Theo Scherling. Berlin/München: Langen-scheidt.
- Rood, Wilhelmus (1970). Comenius and the low countries. Amsterdam/Prague/New York: Van Gendt and Co., Academia, Abner Schram.
- Rorty, Richard (1978). Overcoming the tradition: Heidegger and Dewey. In Michael Murray (Ed.), Heidegger and modern philosophy: critical essays (pp. 239-58). Yale Univ. Press.
- Rosetta Stone Language Library (1993). Deutsch: CDROM programme. Harrisonburg, VA: Fairfield Language Technologies.
- Rost, Michael (1990). Listening in language learning. London/New York: Longman.
- Rousseau, Jean-Jacques (1966). Essay on the origin of languages, and Johann Gottfried Herder (1966). Essay on the origin of language. (J. H. Moran, and A. Gode, Trans.). Univ. of Chicago Press.
- Rusk, Robert R. (1962). The doctrines of the great educators. (Rev. Ed.). London: Macmillan.
- Sadler, John Edward (1966). J.A. Comenius and the concept of universal education. New York:

Barnes and Noble.

Sanctius, Franciscus (Francisco Sanchez de las Brozas) (1733). Minerva, seu de causis linguae latinae commentarius. Amsterdam: Jansson-Waesberg.

Sainte-Beuve, Charles-Augustin (1922-5). Port-Royal. (8th ed., 7 vols.). Paris.

Sapir, Edward (1949). Language: an introduction to the study of speech. New York: Harcourt Brace.

Saussure, Ferdinand de (1966). Course in general linguistics, 1916. (Wade Baskin, Trans.). New York: Philosophical Library.

Schaller, Klaus (1967). Die Pädagogik des Johann Amos Comenius. Heidelberg: Quelle & Meyer.  
 (1979). [Comenius'] Emendatio omnium--a pedagogic or political programme. In Bolgar, R.R. (1979). Classical influences on western thought A.D. 1650-1870. Cambridge Univ. Press, pp. 77-92.  
 (1988). Herder und Comenius. Ein Lehrstück zur Aufklärung der Aufklärung. Sankt Augustin.

Scherling, Theo, and Schuckall, Hans-Friedrich (1992). Mit Bildern lernen: Handbuch für den Fremdsprachenunterricht. Berlin/München: Langenscheidt.

Schleicher, August (1863). Die Darwinische Theorie und die Sprachwissenschaft. Weimar: Bohlman.  
 (1865). Über die Bedeutung der Sprache für die Naturgeschichte des Menschen. Weimar: Bohlman. (1868, M. de Pommard, French Trans., Intro. by Michel Bréal). Paris: Franck.

Schumann, John (1978). The pidginization process: a model for second language acquisition. Rowley: Newbury.

Schwendt, J. (1987). Landeskunde und Literatur im Fremdsprachenerwerb. In A. Addison, and K. Vogel (Eds.), Lehren und Lernen von Fremdsprachen im Studium (pp. 184-96). Bochum.

Selinker, L. (1972). Interlanguage. International Rev. of Applied Linguistics, 10, 209-31.  
 (1992). Rediscovering interlanguage. London: Longman.

Selinker, L., and Lamendella, J. T. (1981). Updating the interlanguage hypothesis. Studies in Second Language Acquisition 3, 201-20.

Sheldrake, Rupert. The rebirth of nature: the greening of science and God. New York: Bantam.

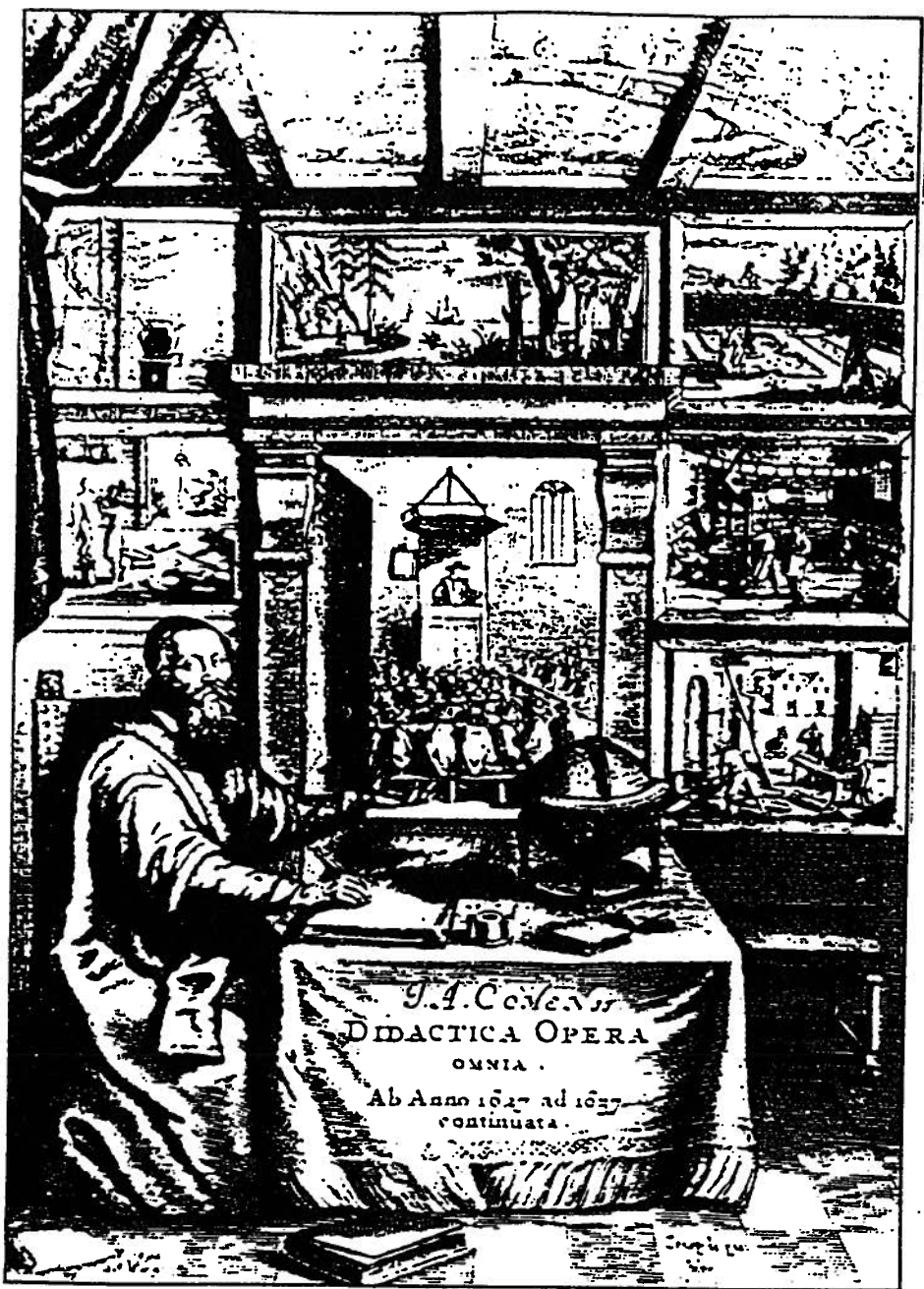
Singh, Rajendra (1993). Reflections on interlanguage: some remarks on interlanguage and linguistic theory. In Kettemann and Wieden (Eds.), (1993).

- Skehan, P. (1989). Individual factors in second language acquisition. London: Arnold.
- Skinner, B. F. (1957). Verbal behavior. New York: Appleton-Century-Crofts.  
(1968). The technology of teaching. New York: Appleton-Century-Crofts.
- Skuttnab-Kangas, T. and Cummins, J. (Eds.). (1988). Minority children. Clevedon, Avon.: Multilingual Matters.
- Spence, Jonathan D. (1984/6). The memory palace of Matteo Ricci. New York: Viking Penguin.
- Spolsky, B. (1989). Conditions for second language learning. Oxford Univ. Press.
- Sprankling, I. (1979). BBC German Kit. London: BBC Publications. Stern, H. H. (1983). Fundamental concepts of language teaching. Oxford Univ. Press.
- Toulmin, Stephen (1990). Cosmopolis: the hidden agenda of modernity. Univ. of Chicago Press.
- Trevor-Roper, H.R. (1967). Religion, the reformation and social change and other essays. London: Macmillan.
- van Ek, J.A. (1976). The threshold level for modern language teaching in schools. London: Longman.
- van Manen, Max (1992). Researching lived experience: human science for and action sensitive pedagogy. London, Ontario: The Althouse Press.
- Veese, H. Aram, ed. (1989). The new historicism. New York/London: Routledge, Chapman and Hall, Inc.
- Vendeuil, Richard de (1993, January 28). Langues étrangères: à bas les complexes! L'Espresso, pp. 47-50.
- Vierck, Henning (Ed.). (1992). Der Comenius-Garten: eine Leseprobe aus dem Buch der Natur. Berlin: Hentrich.
- Viëtor, Wilhelm (1882). Der Sprachunterricht muss umkehren! Heilbronn: Hemminger.  
(1884). Elemente der Phonetik und Orthoepie des Deutschen, Englischen und Französischen, mit Rücksicht auf die Bedürfnisse der Lehrpraxis (7th ed., 1923). Heilbronn: O. R. Reisland.
- Vogel, Klaus (1990). Lernersprache: linguistische und psycholinguistische Grundfragen zu ihrer Erforschung. Tübingen: Günter Narr Verlag.
- von Raumer, K. (1843). Geschichte der Pädagogik.
- Wall, Derek (1994). Green history: a reader in environmental literature, philosophy and politics.

London and New York: Routledge.

- Weidenmann, Bernd (1994). Lernen mit Multimedia: der Traum des Comenius? In Beck and Sommer (Eds.)
- Wenden, Anita L. (1991). Learner strategies for learner autonomy. New York: Prentice Hall.  
(Ed.) (1994 on). Newsletter of the AILA Scientific Commission on Learner Autonomy in Language Learning (LALL).  
and Rubin, Joan (1987). Learner strategies in language learning. New York: Prentice Hall.
- White, Lydia (1989). Universal grammar and second language acquisition. Amsterdam: John Benjamins. (forthcoming) Universal grammar and second language acquisition: current trends and new directions. In Bhatia, T. and Ritchie, W. (Eds.). (forthcoming).
- Whorf, Benjamin L. (1956). Language, thought and reality. Cambridge, MA: MIT Press.
- Wright, Andrew (1989). Pictures for language learning. Cambridge Univ. Press.
- Yates, Frances A. (1969). The art of memory. Harmondsworth: Penguin.  
(1986). The Rosicrucian enlightenment. London: Ark.
- Young, R.F. (1929). Comenius and the Indians of New England. London.
- Zwiener, Ulrich and Vieweg, Klaus (1993). Introduction to Palouš (1993).

**APPENDIX A**  
**INTELLECTUAL WORLD OF COMENIUS**



1. Title-page of the *Didactica opera omnia*, 1657, presenting Comenius as author, writing before the globe of the earth on his table, and gesturing to a door opening into a lecture hall, with pictures round the doorway of scenes depicting the subject matter of education, and the means for extending it: the arts of the sculptor, engraver, and painter; the moral law of the Mosaic tablet; the discoveries of ship-borne explorers; the work of gardener and cultivator; the labour of the printing-press; and the handiwork of builders. On the ceiling are depicted the stars and the path of the sun through the zodiac. The emblematic significance of such title-pages is discussed by Corbett and Lightbown (1979). The whole is a figural representation of education as enlightenment, ranging between the two things that Kant was later to say filled him awe: *Der bestirnte Himmel über mir und das moralische Gesetz in mir*.

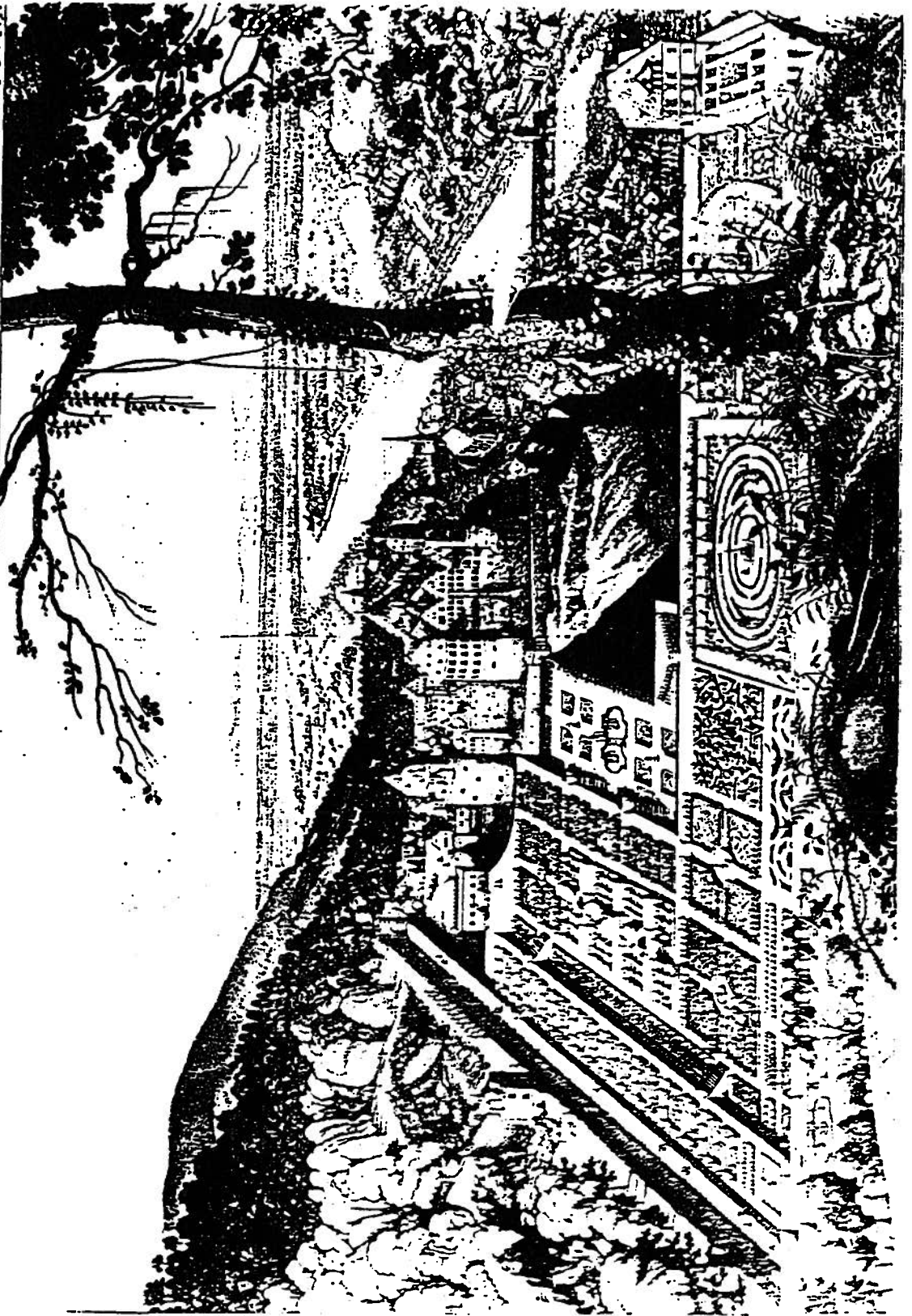


2. Education in a Bohemian Community of Brethren family: this presents a patriarchal model, but mother's role as partner is clearly portrayed: from M. Konecky, *The Home Preacher*, 1618.



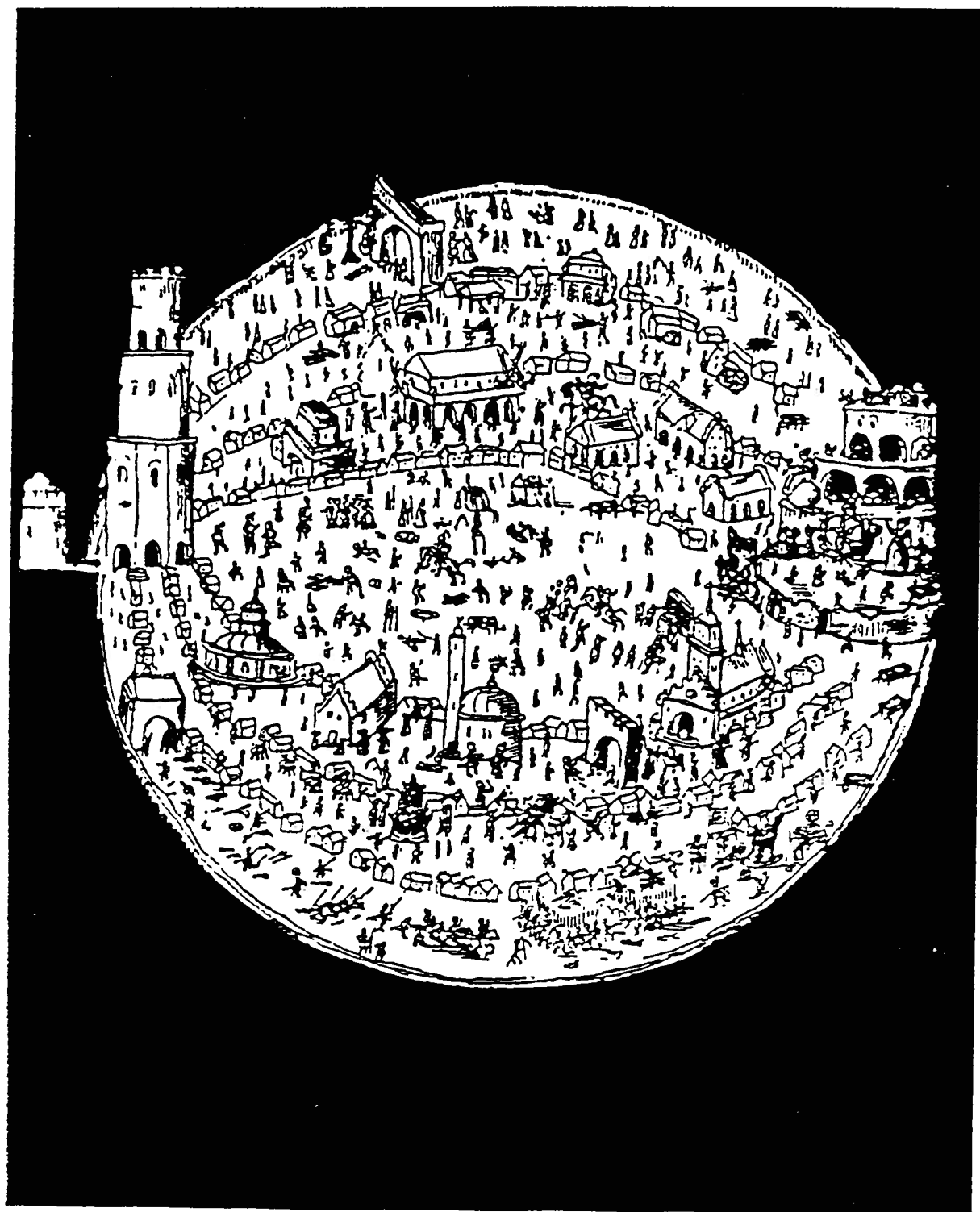
3. Heidelberg--Elector Frederick's palace garden would be perceived by an intelligent observer such as Comenius as a symbol of human art imitating the living art of nature, also of the well-conducted life. The garden theme appears in Comenius's writings, as in the *Panorthosia* [Universal reform], where he says schools should be "gardens of delight."

SCENOGRAPHIA HORTVS PALATINVS A FREDERICO V. ELECTORE PALATINO HEIDELBERGE. EXSTRUCTVS.





5. Comenius's perception of the world in an illustration he drew for the title-page of his allegoric work, *The labyrinth of the world and the paradise of the heart*, 1631. The labyrinth is the contrasting symbol to the garden, representing the condition of the unexamined, unspiritual life, which presents endless, busy, but ultimately directionless paths.

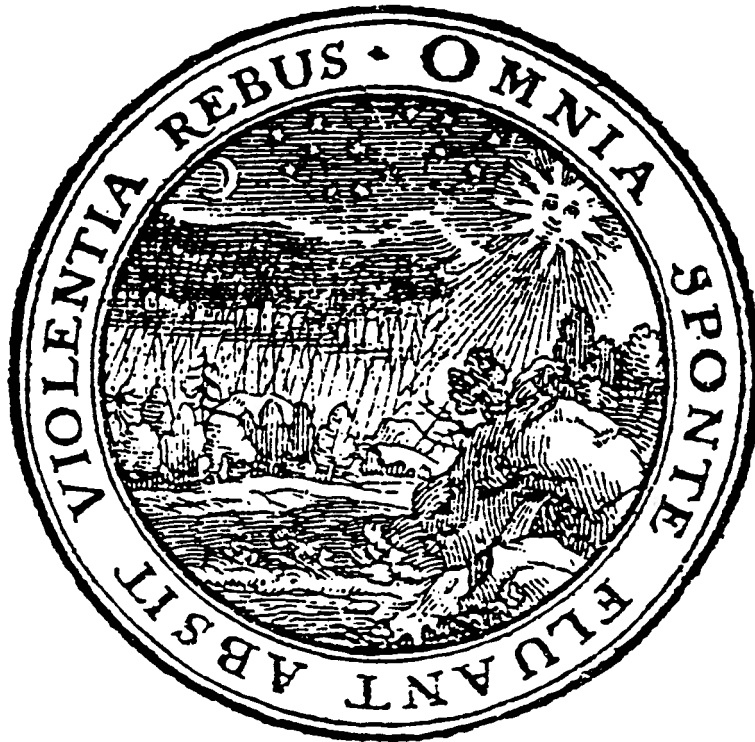




JOH. AMOS COMMENII,  
**ORBIS SEN-**  
**SUALIUM PICTUS.**

*Hoc est,*  
 Omnium fundamentalium in Mundo Re-  
 rum & in Vitâ Actionum  
 Pictura & Nomenclatura.

**Die sichtbare Welt /**  
*Das ist /*  
 Aller vornehmsten Welt-Dinge und Le-  
 bens-Verrichtungen  
**Vorbildung und Benachmung.**



NORIBERGÆ,  
 Typis & Sumptibus MICHAELIS ENDTERI.  
 Anno Salutis 1658 LVIII.

7. Title-page of the *Orbis sensualium pictus* 1658 which in certain ways was the most innovative of Comenius's textbooks, having within it the seeds of multimedia and hypertext possibilities, and retaining its appeal from its own day, on into the eighteenth century, when Kant and Goethe indicated they valued it, and down to the twentieth century, when Thomas Mann has the hero of *The magic mountain* show familiarity with it.

8. Comenius's famous holistic emblem and motto [Let violence be absent--let all things flow spontaneously], found in the *Didactica opera omnia* as well as the *Orbis pictus*.



9. *Illustration of the method of the Orbis pictus: five manifestations in nature of air regarded as an element in the scientific tradition going back to Empedocles, with benign and harmful action depicted, constituting Realia, and the corresponding vocabulary and grammatical structures to express the action in Latin and German detailed.*

**06:06: ( 14 ) : 06:06**

٧٠

**Aër.**



Dr. Swift.

**Aura**

**お茶(子)ちゃん**

|                          |                           |
|--------------------------|---------------------------|
| <i>Aura</i> 1            | Die Luft 1                |
| <i>spirat leniter.</i>   | wehet sanfft.             |
| <i>Ventus</i> 2          | Der Wind 2                |
| <i>flat validè.</i>      | bläset stark.             |
| <i>Procella</i> 3        | Der Sturmwind 3           |
| <i>Nermit arbores.</i>   | reisset die Bäume nieder. |
| <i>Turbo</i> 4           | Der Wirbelwind 4          |
| <i>se agit in gyrum.</i> | drehet sich im Kreiß.     |
| <i>Ventus</i>            | Der Wind                  |
| <i>subterraneus</i> 5    | unter der Erden 5         |
| <i>excitat</i>           | erregt                    |
| <i>Terra-motum;</i>      | Erdbeben;                 |
| <i>Terræ-motus,</i>      | das Erdbeben              |
| <i>facit</i>             | macht                     |
| <i>Laes (ruinas.)</i> 6  | Erdschälle. 6             |



## VI. Aqua

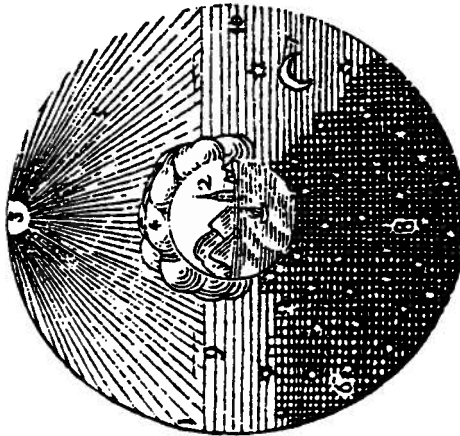


10. Evidence that Comenius preferred to believe his eyes rather than go along with the world picture of Copernicus, since Heaven in the *Orbis pictus* rotates and the sun goes round the earth at the centre of the universe.

☉:☼:( 10 ):☼:☉

III.

Cælum.



Der Himmel.

Cælum

☉:☼:( 11 ):☼:☉

|                            |                           |
|----------------------------|---------------------------|
| <i>Cælum</i> 1             | Der Himmel 1              |
| rotatur,                   | drehet sich/              |
| & ambit                    | und gehet                 |
| <i>Terram</i> , 2          | um die Erde/ 2            |
| stantem in medio.          | die in der Mitten stehet. |
| <i>Sol</i> , 3             | Die Sonne/ 3              |
| ubiubi est,                | sie sey wo sie sey/       |
| fulget perpetuo:           | schiner immer:            |
| utur                       | ob schon                  |
| <i>Nubila</i> 4            | das Gewölcke 4            |
| eum nobis eripiant;        | sie uns raubet;           |
| facitq;                    | und machet                |
| suis <i>Radis</i> 5        | mit ihren Strahlen 5      |
| <i>Lucem</i> 3             | das Liecht;               |
| <i>Lux</i> , <i>Diem</i> . | das Liecht/ den Tag.      |
| <i>Ex opposito</i> ,       | Gegen über                |
| sunt <i>Tenebrae</i> 6     | ist die Finsternis 6      |
| inde <i>Nox</i> .          | daher die Nacht.          |
| <i>Nocte</i> ,             | Bei Nacht/                |
| splendet <i>Luna</i> , 7   | schiner der Mond/ 7       |
| & <i>Sella</i> 8           | und die Sternen 8         |
| micant, scintillant.       | schimmern/ blinken.       |
| <i>Vesper</i> 9            | Des Abends/ 9             |
| est <i>Crepusculum</i> :   | ist die Dämmerung:        |
| <i>Mane</i> ,              | Des Morgens/              |
| <i>Aurora</i> 10           | die Morgenröte 10         |
| & <i>Diluculum</i> .       | und das Tagen.            |

☉:☼:( \* \* ):☉

IV. Ignis.

11. The village of German- and Bohemian-Rixdorf near Berlin, established in 1737, is inhabited by descendants of Community of Brethren members whose bishop was Daniel Ernst Jablonski, grandson of Comenius. To mark the 400th anniversary of Comenius's birth in 1992, the descendants integrated into the village a Comenius Garden whose features represent elements of all the levels of Comenius's scheme of education in the Pampaedia (see the Dobbie translation, 1986): 1. The school of birth; 2. of infants (mother school); 3. elementary school; 4. grammar school--for this, an exhibition facility for the Comenian World in Pictures and a theatre (Schola ludus) are planned; 5. academy--school for youth, named by Comenius, the "workplace for wisdom"; 6. school of vocations; 7. school for seniors; and 8. the school of the dead--the Bohemian cemetery.



## APPENDIX B

### POST-COMMUNICATIVE LANGUAGE ACQUISITION

The authority of those who teach is often an obstacle to those who want to learn.

Cicero

#### B.1. Post-communicative strategies

One seminal idea among so many scattered by Comenius is that scope has to be given for self-direction in the acquiring of a language. While in general he focuses on and emphasizes the role of the trained and sympathetic teacher in education, he does have a most interesting passage in his "analytic didactics" to the effect that "every pupil should acquire the habit of also acting as a teacher" (Jelinek, 1953, pp. 193-4). Here he writes that once something has been expounded, the pupil should immediately be required to give a satisfactory demonstration of the same thing in the same manner. Realization of the value of this procedure for truly internalizing what has been taught, either among small groups of language acquirers, or with computerized feedback arrangements for individuals, seems to be animating the present phase of the development of language acquisition strategies which some are calling "post-communicative" approaches (Jones, 1993, p. 212). On a visit to Germany and Britain in November 1993, the writer was fortunate enough to have opportunities to discuss current issues in modern language education and visit a number of university language centres. Everywhere, it seemed, thought was being given to supports for self-instruction and self-assessment in achieving proficiency with languages (Janssen-van Dieten, 1993, pp. 213-4).

## B.2. Lessons from German and British language centres

In Münster, 85-year-old Edgar Mertner discussed with me his early experiences learning/teaching English in a phase still dominated by the model of acquiring Latin and Greek which had distressed Comenius, because of the unrelenting use of grammar drills and exercises in translating texts remote from the interests of students. However, current SLA methods were followed in the newly-opened University of Münster English Self-Access Laboratory, which supports formal instruction through user-friendly provision of audio- and video-cassettes and delivery equipment, also computer hard- and software, to provide a wealth of material for intercultural study/acquisition of English in its multitude of regional forms as well as the received standard version of southern England.

Mertner and the young assistants running this Lab expressed their positive response to the living contact with English in the formal and informal programmes in Münster. From talking to students and professors at Münster and elsewhere: Göttingen, Jena and Halle (in the former East Germany), Giessen, and Marburg, it seemed to me the six years of high school English plus university experience and in many cases travel abroad were making some young Germans proficient users of English in a serious way that can provide lessons for SLA acquisition here in Canada.

In Göttingen, Demet Freiburg, a Turkish teacher of German, discussed with me the language problems of older Turkish women who find it hard to relax family bonds and acquire sufficient German to move out from their ethnic community into the wider German society which has had grave difficulties with multiculturalism. If the children are successfully placed in German schools, in time they become the teachers and supporters of their home-bound mothers in their efforts to make some contact linguistically with the German community. Attention by employers and co-workers to the German used in the workplace also helps Turkish

people with their new language. It is encouraging to note, in this connection, that language researchers have made important gains in analysing workplace German and other second languages (Klein and Dittmar, 1979; Nizgorodcew, 1993). The German government is now requiring asylum-seekers to attend German language classes in their local communities in order to benefit from social welfare programmes. It seems that self-accessing German programmes would greatly reinforce what can be done with limited funds for traditionally-instructed German SL classes.

Of the German university language acquisition programmes I described as accessible to me, those at Würzburg seemed to be the best organized. A focus for them is the Sprachlabor housed close to the language teaching classrooms and offices of associated faculty. Brigitte Graeber, who directs a programme in German as a foreign language for international students, showed me the excellent equipment (cassettes and tape recorders) in the lab used for the fundamental HSAH language learning and production activities: Hören = to listen; Sprechen = to speak; Aufnehmen = to record; Hören = to listen again. This widely-recognized emphasis on a specific sequence is actually in line with Comenius' recommendations for successful language learning, as William Mackey points out (1992b). Recent support for the emphasis has come from the research summed up in Michael Rost's book, Listening in language learning (1990). Graeber said she supplements HSAH with a broad range of other LA methods: grammar drills from carefully chosen textbooks, communicative techniques, also videos and computer programmes, in fact, anything that works to put across the phonetics, vocabulary expansion (including technical/scientific/ business German), grammar structures, and conversation exposure that her students need.

A colleague, Jackie Ward, runs the Anglikum, a programme for students of all faculties who wish to improve the oral and written English learned in high school and earn a certificate

for completing the work to an exacting standard. Ward encourages pairing of students to tutor each other, a form of the Partner-Arbeit system with a long history in the German workplace (Mackey, 1972), and she gives a lot of time to students to counsel them about self-directed learning.

Yet another colleague, Albert Fuss, has developed a strong interest in using the facilities of the Sprachlabor to make and draw on videos and audio cassettes to support Spanish teaching. His contrastive-cognitive approach to teaching Spanish is outlined in a four-part textbook: !Que barbaridad! Einführung in die spanische Sprache (1981, 1985, 1987, 1988), prepared with the help of native-speakers Felipe Jambrina and Angel San Miguel. Fuss's aim is to help students acquire a basic Spanish vocabulary of 2,500 words, remarkably like Comenius' idea in the Janua linguarum reserata (1631) for acquiring basic Latin. For Fuss, the aim is to be accomplished with the aid of literature and humour.

His videos use humorous, everyday situations to catch the students' attention, and there is considerable reliance on Blödsinn (craziness, nuttiness) to grab viewers. Commonly-used vocabulary, real-life situations, and authentic dialogues are also featured in the videos. The first viewing of the video is accompanied by the dialogue only; the next viewing adds the text. He introduces cultural content into the scenarios, and he finds that this adds to the students' motivation to absorb vocabulary and grammar structures. To some extent, he is relying on Bruner's LASS (Language Acquisition Support System) to bolster the Chomskyan LAD (Language Acquisition Device) as his students acquire Spanish.

During all of the above, the students' textbooks remain closed. After they have viewed/listened to the dialogue twice, Fuss asks students to repeat the dialogue (the unfolding of the dialogue has interruptions allowing for absorption). He then shows the same video once more with the written text, and next he uses pictures from the video for discussion, particularly

of new words. Only at the end does he turn to the textbook to review grammar rules before turning to the communicative method. He has the students describe in Spanish and comment on what they have seen. Time is taken to go over specific grammar rules and these are reinforced in the visualized scenes and the textbook material.

Fuss ran for me four of the videos he has made, which emphasize authentic language, including expression of warm feelings: disgust, surprise, and anger, also joy, connected with common experiences such as the disruption of a picnic on a date and the tardiness of a girl friend for a date. Intercultural points about dating, for instance, were amusingly and effectively made. Technical resources used to background some scenes in Granada and on a bicycle pilgrimage to Compostella introduced convincing displays of Spanish culture and geography. Fuss's work is impressive, and demonstrates how a video camera and recording apparatus in the hands of an imaginative and skilled person can be highly productive for developing interactive multimedia language acquisition programmes, especially for self-learners with access to a VCR.

In Britain, it seems that the European Common Market connection is driving universities to re-examine traditional language teaching and learning practices and become innovative. At Glasgow, the CALL (Computer Assisted Language Learning) lab is a very busy adjunct to the formal teaching in departments, and liaison with the Fachbereich Angewandte Sprachwissenschaft in Germersheim (campus of the University of Mainz) has ensured that its resources meet the highest European standards.

Dundee lost its modern language departments as a result of shortsighted budget retrenchments in the 1980s, but a Language Centre has been established to offer courses in French, German, and Spanish. The Director, Robin Adamson, described to me the reliance on the communicative approach and emphasis on self-learning in these courses. A staff of tutors monitors the progress of students through leading short, intensive sessions of language

learning, but the students have autonomy in pacing themselves and deciding when they are ready for the next phase of a course. The Centre is beginning to adapt distance learning language courses prepared by the staff at the Open University, Milton Keynes, to extend the range of offerings. The tutors are selected for their ability to foster student-centred learning.

From the inception of the University of Sussex in the 1960s, provision was made for practical work in modern languages in an audiovisual lab, and this became a full-scale Language Centre in the 1970s. It is now a complex of teaching rooms, sight/sound/computer (CALL) facilities, library of printed and cassette material, and office space in a separate building next to the School of European Studies. It seemed to me the most comprehensive language unit, including providing opportunities for self-directed learning, that I saw on my travels. Tutors, courses, and self-accessing materials are available through the Centre to students in the School of European Studies and the Schools of Physical Sciences, Biological Sciences and Applied Sciences, for preparing themselves for their work and examinations in the languages that form part of their degree programmes. In addition, students in the School of Development Studies can get self-access learning packages for basic introductions to African, Asian, and Latin American languages needed for their field work, and the Centre can arrange contacts with speakers of these language who act as needed as tutors. Student and faculty extracurricular use of the Centre is encouraged by extended opening hours, and the public can make use of the services at modest cost. Tutoring can be paid for or exchanged for lessons in another language.

Classes and tutorials were in progress on the day of my visit (15 November 1993) and auditing could not be arranged, but it was apparent to me that the support material included extensive and carefully graded material for learning German: 93 videos; a section on business German, communications, and the practical traveller; a section on grammar drills and pronunciation; a cultural section, with material from the *Inter Nationes* TV programme on



German festivals, the working day in Germany, and women in Germany. There was another section on interviewing and interpreting in German; an archive of German songs: political, folk, and art lyrics; tapes of German literature readings; and a section on the different German dialects: Almanisch, Hessisch, Fränkisch, Westfälisch, Berlinerisch, Schwäbisch, Rheinisch, Thüringerisch, and Bayrisch. The Secretary-Receptionist, who is Dutch and fluent in English and French, organizes tutorial arrangements and bookings, and a Librarian and Technician handle facilities. A Director administers the separate budget for the Centre and selects and coordinates the instructors and other staff.

### B.3. Self-directed language programmes: Irish, Dutch, and Danish-German ventures

Recently reported on in SLA literature is a two-year (1982-4), self-study programme in German for Engineering students at Trinity College, Dublin. The numbers participating were not large: the programme retained 18 students by the end of the first year, and had 9 completing satisfactorily the compulsory assessment test at the end of the second year, 5 at the beginners' level and 4 at an intermediate level. The materials used were chiefly a BBC German Kit, prepared by I. Sprankling in 1979, and NFT. Hinführung zur naturwissenschaftlich-technischen Fachsprache. Teil 1: Werkstoffkunde (1979) by R. Buhlmann and A. Fearn. The organizers concluded that their "programme responded to individual needs, interests, levels and learning styles of the participants in a way that would not be possible in a class-based course." Important features of the programme were access to counselling and encouragement to attend meetings with native-speakers at which the German learned by self-study could be used (Little and Grant, 1985).

Significant lessons about language self-study can be learned from this Dublin venture, especially the importance of a linked counselling service for the students. Also, a self-study

reading course in Dutch for French- and English-speakers more recently reported provided good examples of careful sequencing of grammar structure lessons and final-stage presentation of authentic texts (Backus, 1993, pp. 334-5).

Correspondence with Lienhard Legenhausen of the University of Münster (1994) has brought to my attention details of the first stages in a long-term project on Language Acquisition in an Autonomous Language Learning Environment (LAALÉ) begun in 1993. This involves observing the English LA development in an autonomous programme of a fifth grade class in a Danish commune near Copenhagen. The first results of their vocabulary tests have been interpreted against the background of similar tests administered to a fifth form English class in a gymnasium near Hamburg. Legenhausen is compiling a thesis-notebook to which a co-researcher Leni Dam contributes. He reports that the Danish students use The learner's Oxford English picture dictionary (another application of Comenius' Orbis pictus ideas) and a bilingual Danish-English dictionary. The students also have access to English children's books and videos. From these sources they have drawn English vocabulary for cards, games, posters, and booklets they make themselves and share with the whole class. The German students are taught in a traditional manner with a set textbook.

Preliminary results suggest that unstreamed Danish students in a school with social problems, who have needed remedial teaching in their mother tongue and mathematics, are acquiring a more extensive English vocabulary at a faster rate than the German students, who have in their midst a majority of academic high achievers. No doubt more rigorous control and testing are required to make this result stick and be able to generalize from it, but response to the programme is encouraging. Apparently the Scandinavian countries have been developing autonomous learning programmes since the 1970s (Legenhausen, 1993).

**B.4. W.E. Mackey's New Brunswick multimedia self-directed language acquisition model**

More specific guidance about the necessary details of the formation of an autonomous German acquisition programme, using multimedia support, is to be found in a programme initiative of William E. Mackey, which has now been in progress for almost ten years. He developed for the Francophone schools of New Brunswick the Multimedia Self-Directed Second Language Acquisition model, which was introduced in 1985 on an experimental basis to expand the students' knowledge of English and allow them to function with success in a bilingual province. Some special circumstances of New Brunswick Francophone schools had to be kept in mind. The curriculum only allowed for a limited amount of time to be spent on English instruction: about 100 minutes per week. The teachers themselves had limited knowledge of English. Also, outside school the students had greatly varied contacts with English: for some this was a daily occurrence, for others it was a rare event, resulting in diverse levels of knowledge of English and progress in using this language.

Mackey's model met these conditions by maximizing the amount of time learners could be in contact with English in school, through making reading material available in the language classroom, as well as tapes to be listened to through earphones, or video programmes to be viewed on TV monitors. The quality of the English language material was carefully controlled to ensure good modelling of pronunciation and articulation, and the students were motivated to enjoy and learn from the diversity of materials available because a wide spectrum of interests was represented to invite individual choice. Teacher and peer control were absent from the instructional side of the classroom where the atmosphere aimed at was a friendly one, lessening anxieties about learning another language. Lack of background on the part of teachers was not a problem, as individual students were responsible for the knowledge of English they possessed and the progress they were making. Mackey suggested that the advantages of the model were

these:

1. emphasis on language learning and direct contact with the new language;
2. elimination of such negative elements as a. competition, b. intimidation and authoritarianism, c. conditioning of the pupils to be dependent;
3. each skill and skill combination is progressively introduced, i.e. staged;
4. use of now widespread and generally available technology permits a. individualization, and b. transmission of the most interesting recorded productions.

(Mackey, 1991, pp. 245-6)

A description of the self-study activities in the New Brunswick schools is instructive for determining the underlying language acquisition methodology. Five days a week the students go to a language classroom where they can choose from many different English books of different levels. They have autonomy in selecting an appropriate level and how long to stick with it or when to go on from it. Individual tastes can be matched with anything from comics and illustrated children's books to textbooks and photocopied material. Each student can go to a separate table, where a book can be read and the accompanying cassette listened to along with the reading. Groups of students gather to watch a video that is focused on a story unfolding, not on language. The students themselves monitor their activities and progress. Teachers are there to help with the equipment and details of organization of the activities in the classroom. There is no language teaching as such, no tests are given, and the comprehension of students is not probed.

The idea of the progressive introduction of skills and skill combinations by stages at the different levels of language acquisition has one origin in Comenius' theories, as explained in the Janua linguarum reserata (1631) and Methodus linguarum novissima (1649). Mackey considers that staging is of the first importance in planning a syllabus for language acquisition. The

question of time allotment for mastering one skill or sub-skill (reading English; reading while listening to English; and listening to English and then reading the language) turns on the best spacing and sequencing of these foci. The capacity and the background of each acquirer determine the time required. The crucial point is that work on a new sub-skill should only begin after there has been adequate work on dependent skills and sub-skills.

Controlled enquiries have suggested the easier receptive skills, listening and reading, should precede the more difficult expressive ones such as speaking and writing. The more complete the understanding through the ear or eye, the better the expression through the voice or pen or word processor. It seems that the quality of what is heard correlates highly with the quality of what is uttered.

Full acquisition of a language means comprehension of both speaking and writing or print. Each skill has to be presented very carefully and in a well-thought-out relationship. For hearing comprehension, the greatest assimilation with the least effort is dependent on reduction of the stress level of the auditor and sequencing verbal items and structures within carefully varied contexts. The acoustic memory of the acquirer should be stored with the best possible phonetic rendering of the target language, for example, with a standard accent, to provide the best model for future oral communication. Later on, different varieties of the spoken target language can be illustrated, principal dialects, for instance, not for imitation, but for comprehension.

Since our economic, social, and cultural activities are becoming increasingly more complex and individualized, the challenge of what has to be learned for a person's future has to become more and more an individual's responsibility. In consequence, education has to become a matter of how to learn, as well how to be autonomous and responsible in learning. The old regimen of taking students *en masse* step-by-step through the same language learning

routines seems out of date. Educators need to provide for individual development, as Mackey writes, "like growing trees instead of manufacturing them" (1992, p. 8). This is now feasible because of the range and sophistication of the new media, making it possible to meet individual target language needs, however extensive or varied. As well, it is possible to satisfy these different needs of individuals at the same time and in the same space through the resources of multimedia centres, or even at different times and places to suit the individuals, if we think of the portability of printed material, also of audio and video cassettes and appliances.

The method of exposure to vast amounts of written and recorded material (tapes and videos) in a long passive, non-productive phase in Mackey's New Brunswick programme before expecting language production is similar to the advice given in Caleb Gattegno's book, Teaching foreign languages in schools: the silent way (1972). Stephen Krashen's "comprehensible input hypothesis" as part of the Monitor Theory follows along the same lines, holding that learners will learn a language automatically when they are subjected to input that is understandable but just beyond the threshold of their existing level of mastery, and in a non-threatening environment, when their "affective filter" is down (Krashen, 1980, 1981, 1982, 1985; Krashen and Terrell, 1983; Larsen-Freeman and Long, 1991, pp. 140-4). This thinking relies on an analogy between the language learner and the young child who is exposed to the mother tongue before ever speaking, indeed has to receive this input, and subliminally sorts out the grammar and syntax that are required. The New Brunswick school project for self-study also connects with Chomsky's picture of the functioning of LAD (Maironi, 1993, pp. 106) and, I would argue, with that of Bruner's LASS model, in that the strong cultural presence of the Anglophone media reinforces English acquisition by Francophones, perhaps in ways that are not entirely desirable.

Tests conducted after three years of the Mackey programme in New Brunswick suggested

that the children who had gone through it performed better on assessments of retention of English vocabulary and of "Picture Description" in English than students in regular ESL classes. Above all, the new programme students expressed enthusiasm for their English, and did not "appear to be frustrated by the difficulty of proceeding on their own with the challenging task of learning English" (Lightbown, 1989, reported in Maironi, 1993, at p. 107).

In a paper recently presented to the Canadian Association of Applied Linguistics, Garold Murray (1994) reviewed the philosophy of autonomous or self-directed LA, described some features of the present management of the New Brunswick programme, and commented on the implications of the research that had been done on the programme.

Regarding autonomy or self-direction, his conclusion was that this term could be applied to an LA if five characteristics were met.

1. There should be an emphasis on learning understood as active use of L2 skills (listening, reading, finally speaking L2) as opposed to formal, passive study of it.
2. The student should make direct contact with L2 in the form of transactions with many materials and media.
3. The student should be exposed to a wide variety of authentic materials and activities.
4. The student should manage his L2 acquisition through making decisions time disposal and keeping track of self-organized activities and achievements.
5. The teacher should be present to support learners in their task.

Murray's conclusion was that the New Brunswick programme displayed these characteristics, and the research conducted so far--not very extensive--tended to the conclusion that their presence made it "possible for young children to learn a second language on their own when they were given access to appropriate material" (Lightbown and Halter, 1988; Lightbown, 1992b).

One feature of the programme described by Murray is not found in Mackey's account. This reveals how the programme is managed by the devisers to stage the comprehensible inputs and work with the natural way of language acquisition. When a student goes to the English classroom, she can consult her individual computer-generated activity report to see from what activities and materials she can choose that day. We can extrapolate from what Murray writes to comment that her choice among the range proposed is free, but within it she can exercise the English skill that she feels needs working on, or she can go on to the next one (Murray, 1994, p. 14).

#### B.5. Intercomprehension

The enthusiasm of the New Brunswick children for self-directed language study was apparently echoed at a conference on the subject held at Barcelona in January 1992. Researchers are also showing great interest in the concept of intercomprehension, a communication process in which contributors at a scholarly conference, for example, understand each others native speech but express themselves in their own (Barbot and Tauzer Sabatelli, 1992, p. 34). Universities in Aix-en-Provence, Salamanca, Lisbon, and Rome are linked in a European project to further this method of communication, and a task force has developed a fifty-hour learning process to teach researchers to read a multilingual journal and participate in an international conference (Vendeuil, 1990, p. 50). Elisabeth Maironi believes that the self-study method and development of intercomprehension have decided advantages over other forms of language learning/acquisition. They encourage independence and autonomy in learning which in today's terms may be a lifelong process. As Wordsworth hinted, the child can become the father of the man, because self-study of a second language practised at school can be the formative prelude to the acquisition of other languages in later life, as moves to other countries or career or private



satisfaction goals require this (Maironi, 1993, p. 108). There is some reason for thinking that the climate of informed opinion within which a German self-study programme could be developed is in many ways an encouraging one, but we also have to face those discouraging numbers of drop outs from language course progression. Could a well-planned self-directed programme for German acquisition change this story in a small way? This thesis proposes that formal implementation and longitudinal testing of such a programme would be a desirable initiative.