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The significance of the concepts ‘elemental’ and ‘fundamental’ in didactic theory and practice

R. A. KRÜGER

translated by George D. Yonge

The ‘elemental’ refers to the essentials of the contents that make them accessible to a child. The effects on a child of contents that are mastered are the ‘fundamental’. In a fruitful didactic unlocking (presentation) it is possible for a child to achieve considerably more insight than merely an understanding of the learning content. The child (learner) gains insight into reality itself, and even into means of dealing with it.

There is a path from the elemental to the fundamental that should always be kept in mind, and kept open by a teacher. The elemental has an unlocking function and facilitates presenting the contents to a child, but it is valid didactically only if it is transformed into a fundamental learning experience by a child/learner.

The elemental-fundamental approach, if used appropriately, leads to effective teaching that culminates in genuine learning. This, in didactic terminology, is referred to as ‘categorical forming’. Contents that have been mastered become part of a child’s intellectual possession by means of which the becoming person can gradually cope with present and future life-world situations and the life challenges they encounter.

Keywords: Bildung (education); categorical forming; didactic theory and practice; elementals and fundamentals; history of education

Preamble

My purpose in this preamble is to provide some background to my essay on ‘elementals’ and ‘fundamentals’. This necessitates a brief background of a personal nature and the method of approach I followed in this study, which was first published in Afrikaans in 1975.

A new pedagogy

When I began my master’s degree at the University of Pretoria (UP) in 1970 I was immediately confronted with the enthusiasm of the faculty for

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what they termed *pedagogics*. The faculty at UP had opted for this term, in Afrikaans, *Pedagogiek*, instead of ‘education’ in order to build a distinctive *educational* theory. Their interest in what they termed ‘fundamental pedagogical essences’, i.e. the basic essentials of education, was a reaction to the dependency of educationists in South Africa at that time on educational thinking in the UK and the USA, neither of which practised education, or pedagogics, as an autonomous human science. The UP faculty were against all mechanistic and mechanical approaches to human learning, and were especially critical of the kind of mechanistic laws or principles propagated by psychologists such as E. L. Thorndike. John Dewey’s experimentalism and liberalism also came in for much criticism, as well as thoughts and influences of his most devout and influential disciple, W. H. Kilpatrick.

All thinking not concerned with essentially *human* existence and *human* learning (*‘the learner as meaning-giving intentionality’*) was disfavoured, and there was a search for a ‘fundamental pedagogics’, that is, an educational theory as an independent human science with its own terminology, its own points of departure, its own methods of investigation and verification based on the premises of educational (pedagogical) essences, that is, the essential characteristics of the teaching-learning phenomenon. B. F. Nel (1968, 1974), C. K. Oberholzer (1955, 1968), W. A. Landman (Landman 2000, Landman and Roos 1973, Landman *et al.* 1975), Floris van der Stoep (see Van der Stoep 1969, 1972, Van der Stoep and Louw 1984, Van der Stoep and Van der Stoep 1968, Van der Stoep *et al.* 1973) and M. C. H. Sonnekus (1968, 1974; see Sonnekus and Ferreira 1979) were some of the significant faculty of the time.¹

My entrée

Coming from a career as a teacher, initially in primary schools, then in secondary schools (significantly as a teacher of German) and subsequently as high school principal and educational planner, it was a logical step for me to opt for the part-discipline of didactical pedagogics, the educational field of teaching and learning, as a field of study. Throughout my career as a teacher the optimalization of teaching and learning had always been a challenge, and at UP I was afforded the opportunity to get my teeth into that elusive phenomenon. I was fortunate that Floris van der Stoep, who had studied in Germany, was to be my advisor. He suggested that I explore the German authors who had worked on the theme of the ‘*Elementare*’ and ‘*Fundamentale*’. His conviction was that it should be fruitful to interpret what they had opened up to that point.

At UP we were immersed in phenomenology—pure unadulterated existential phenomenology (which, by the way, had very little to do with existentialism, a philosophic trend which was regarded as unacceptable). I was immersed in the phenomenology of, *inter alia*, C. K. Oberholzer (1955, 1968) and saw the person (‘man’) as existential, but open to meaning-giving possibility. The approach at my disposal was the phenomenological method accompanied by the hermeneutic and the dialectic methods (see

Landman 2000), revealing the ways the essences of educational phenomena are actualized in their interrelationships. At the same time, the human-science pedagogy of Wilhelm Flitner, Wolfgang Klafki, Theodor Litt, Herman Nohl, Eduard Spranger, and Erich Weniger (see Westbury *et al.* 2000) was studied extensively, and admired for the insight it brought—as will become clear on reading this paper.

My approach to investigation and research regarding the ‘*Elementare*’ and the ‘*Fundamentale*’ was spelled out in clear terms: (1) Look for what is *ontic* (given with human existence, inseparable from man’s being in the world, present in the original life-meaning of a person); and (2) Interpret phenomenologically (let the phenomenon speak) (Oberholzer 1955: 131; see also Oberholzer 1968). Note that the ‘ontic’ is *that which is*, a derivation from the Greek *onthos*, ‘to be’. This essentially human way of being is captured in the German *Dasein* (‘being there, existing, living’, *Langenscheidt’s Pocket Dictionary* 2000: 79). The adage that goes with this is ‘*Dasein ist in der Welt sein*’, ‘Being there is being in the world’. Teaching can enhance or harm the juvenile *Dasein* depending on the creativity and meaningfulness, or bungling and meaninglessness, characterizing the didactic interaction (Schwerdt 1952: 15).

I ended up proclaiming essential insights and descriptions like *Bildungsinhalt* (educational contents) and *Bildungsgehalt* (which to me represents the value-laden impact of such contents in the mind of the becoming person, educational substance, if you like). These concepts lie at the very core of the paper that follows. I could, with Theodor Litt, proclaim that *gebildet sein*, being educated/‘educatedness’ (Klafki 2000: 146), with all its awe-inspiring implications, is what educational contents are about. The awe stems from having to intervene in the lifestream of the juvenile in order to assist the youth in reaching an ideal level of *gebildet sein*.

I have recently re-read Klafki’s (2000) ‘Didaktik analysis as the core of preparation of instruction’. It is significant that we refer to many of the same authors: Litt, Weniger, Willmann, Nohl, Wagenschein, Roth, Copei, Spranger, Heimpel, Kerschensteiner, to cite them in the order in which appear in his paper. I would add the likes of Pestalozzi, Froebel, Herbart, Drechsler, and Lahrmann, to which I am certain Klafki would not raise objections. Perhaps this is not surprising, because when I first ventured out on this course I referred copiously to Klafki’s (1954) *Das pädagogische Problem des Elementaren und die Theorie der kategorialen Bildung* as well as his other works. I did not, however concern myself with writing a Didaktik, or a didactic theory. My concern was to extract from the writings of these prominent educationists how they expressed themselves regarding the Didaktik essences of the *Elementare* and *Fundamentale*, and interpret their insights didactically.

Concerning the paper

The theme of this paper is educational contents. This takes us to reasoning about educational contents and what to do with that content in didactical and educational terms. *All of didactic theory deals with the contents of education*

and their educational worth. In German two terms have been coined to capture this issue, *Bildungsinhalt* (the contents of education) and *Bildungsgehalt* (educational substance, or the educational value of such contents).

In German didactic writing two other terms appear, namely *das Elementare* and *das Fundamentale*. These terms may sound strange to the Anglo-American reader, yet they are familiar to German/Dutch and Nordic readers, and all readers who have become acquainted with the German Didaktik tradition. I coined two English terms, namely 'elemental' and 'fundamental' or, in their plural forms, 'elementals' and 'fundamentals' to translate these notions. The important thing to accept when reading this paper, is the need to get away from any literal translation or traditional meaning related to these terms. 'Elementals' have very little in common with 'elementary', and 'fundamental' must certainly not be understood as fundamental/at the root of/basic/comprising a foundation—and certainly does not imply fundamentalism of any kind.

For starters, one might say that elementals deal with concentrated, that is, *reduced*, educational contents whereas the term fundamental refers to the educational impact of a selected and reduced content on the being or existence of the learner (cf. Van Dyk 2006: 130). Insofar as the elementals are concerned, the focus on the essences of the contents has brought to the fore a variety of possible manifestations. This should not be too daunting for anyone who has the task of implementing such elementals. On the contrary, teachers who have the task of dealing with the most effective ways of presenting contents to their learners/students/pupils should regard the lists I offer as inviting. It should pave the way to interesting and thought-provoking teaching, through which fundamentals may be achieved. The list can be turned into a useful guide to unleashing the *organic power* (the power to penetrate) contained in the educational content (Nohl 1949: 144; see also Klafki 2000: 150, Willmann 1923, 1930).

Modern didactics steers away from accentuating methods of teaching (Schwerdt 1952: 4). Instead it approaches didactic analysis from the point of view of introducing elementals into the didactic situation (in whichever way), confronting the learners with the *life-containing essences* (elementals) inherent in the educational content (compare Van Dyk 2006: 129). Well-chosen elementals empower the teacher to interact with his or her learners in a manner that may bring about a moment of penetrative understanding, the so-called 'fruitful moment' (described as an '*Aha-Erlebnis*'), the moment of deep understanding that might well change the learning person's insight, perceptions, attitudes, etc. in a life experience that will stimulate the learner in becoming an educated person (*gebildete Person*) (Klafki 2000: 147). This makes educational intervention in the life-stream of the young generation just about the most important act of human endeavour. *Learning of this kind empowers the young person.*

In other words, together with the didactical criterion of 'Has someone learned something?' another, more important question arises: 'Has the learner's relationship to reality, i.e. his or her being-in-the-world and lifestyle changed?' (Van der Stoep and Louw 1984). This is the *educational* criterion that concerns itself with the question: Has the organic power of the contents become a formative force in the life of the learner?

Introduction

Person, world and reality: an interwoven situatedness

A person always finds himself or herself at the intersection of self and world or reality (Drechsler 1967: 10). This intersection implies a field of tension between the subject (the 'I') and the surrounding world. The tension is created by the fact that a person continually lingers between turning inward and pausing as against the need to proactively establish relationships with reality (and significant others). This implies breaking away from equilibrium, or lack of tension, to attempts to master the world and its (sometimes grim) realities. Person and world are not separate, and implicit in human-kind's existence is participation (meaningful encounter) with the world. Yet, a person never completely meets and is never completely situated in his or her world. A field of tension lingers between what one is and what one ought to be, that is, should become.

Mastering the world and reality means mastering life-world contents (Van der Stoep *et al.* 1973: 17). In mastering the world and reality a person's (a learning child's) self-knowledge and relationships with reality constantly change, and the profile of his or her field of tension is altered through such encounters. This is where education comes into play. Without educating and teaching a person cannot live and exist, i.e. conquer reality, in the true sense of these words (Derbolav and Roth 1959: 109). The *extent* and *meaningfulness* of any person's life are continually defined by his or her greater or lesser mastery of contents, but also by the quality of his or her control of the meanings and insights that are present in life-contents. It is the *quality* of such learning experiences that gives significance to the theory of elementals and fundamentals.

This view—that the extent and meaningfulness of a person's being-in-the-world correspond with his or her greater or lesser mastery of contents—raises the question of *how* these contents can be presented to a child in the learning situation so that he or she will acquire an optimal grasp of and insight into a chosen content. Reality has to be *unlocked* (i.e. opened, explained) in such a way that the child not only acquires a grasp of it but also gains self-understanding (Stenzel 1960: 129). By making the contents known to a child, he or she acquires insight into reality—a better understanding of things—but also the ability to better orient himself or herself in establishing worthwhile relationships with things and people.

These considerations have been explored by generations of German didactians. This essay presents the various approaches of some of these educationists in an effort to learn their views on the *elementals and fundamentals*, and the impact of these concepts on meaningful teaching and learning—and, of course, becoming in a didactical context.

Investigating the structure of contents

Adults participating in a didactic situation, who take on the task of unlocking contents for a child's benefit, play a key role in the activity of teaching and

learning. They themselves will have to be completely immersed in the encounter. Wagenschein (1963: 72) indicates how, on the path from contents to a child, all of the spiritual *world* and all of a *person* are touched by a ‘fundamental’ experience. In other words, the contents not only carry the structure of a general relationship that can be made known in a reduced way, but such an unlocking also holds the possibility that the learning contents encroach in the lives of *both* the learning person and the adult by means of what is contained in them. In this essay I review how different authors have considered the ways in which contents can be *reduced* to make complicated contents accessible to children, and in what forms the reduced contents may appear.

Preliminaries

In the German literature I discuss here the concepts ‘elemental’ and ‘fundamental’ are used in a didactic sense. I review and interpret the use of these concepts to determine their relevance for didactic theory and practice. The synthesis I offer requires a degree of interpretation because there is no unanimity among philosophers and didacticians regarding the significance of these two concepts: sometimes their didactic and practical significance is implied without their formal mention or description. So in this essay I seek to clarify certain positions.

In order to follow the discussions of the ideas of the elemental and the fundamental I review I will introduce the terminology they use. In general this amounts to indicating that contents set aside for teaching have a particular structure. Within this structure there may be an advanced concept or a larger relationship, but there also are features unique to the object (or the lesson contents) that gives access to the advanced concept or larger relationship.

Thus Wolfgang Klafki (1954) contends that the contents should not be the only focus when considering a teaching situation. Instead there should be reflection on the *unlocking of the essential elements* by which complicated and (for a child sometimes) inaccessible contents can be clarified and made accessible. This requires *reducing* the contents to what is basic, elementary, *the elemental*. This essay is focused on how different writers approach this basic, elementary form, i.e. the *elemental*, inherent in the contents. I also consider the forms in which *elementals* appear and whether the *elemental*, as such, appears as a discrete entity in the life-world, or whether it has to be abstracted from the contents.²

In addition, I review the use of the concept of the *fundamental*. A number of views are dealt with, but two views of Flitner (1958: 10) give an indication of the direction in which to search for a didactic interpretation of this concept. He contends that educating can only succeed if it is founded in the *fundamental*; elsewhere he gives a definition of the fundamental as the primordial *experience of existential becoming*. (Consider this carefully—Author’s note).

These two conclusions deserve further explication in order to better grasp the following discussion. Educating can succeed only when it is

founded in the fundamental. Landman and Roos's (1973; see Landman 2000) 'pedagogic aim structures' spring immediately to mind, namely, meaningful existence, self-judging and self-understanding, human dignity, forming morally independent choices and actions, responsibility, norm identification, a philosophy of life, individual and social well-being, etc. Flitner (1958) concludes that the fundamental figures whenever pedagogic aims arise. This implies that the fundamental is, in a sense, a collective term for pedagogic aims. This argument is raised again in later discussions.

Flitner's other conclusion demands attention, namely, that the *fundamental is a primordial experience of existential becoming.* The fundamental is a primordial experience, i.e. a first, original, unique, authentic experience within the didactic situation. But this experience is qualified and typified as an experience that gives rise to a 'growing' or 'becoming', an advancement in a child's existence. Thus, the fundamental is an experience of contents that have been made accessible to a learning child by means of which he or she 'becomes' by way of the experience in his or her own manner of learning contents.

Both the elemental and the fundamental are concepts pertaining to contents. However, where the contents as elemental rest above all on the deliberations of the teacher, the fundamental can be described as learning contents where, as they take form within the framework of a *child's* learning activities, the *elemental becomes converted into the fundamental.*

The *teacher as unlocker* (fulfilling the function of unlocking) of reality for a child is a *precondition* and is assumed in all statements, discussions and deliberations considered here.³ Furthermore, all conclusions and findings regarding the elemental and the fundamental are interpreted as embedded in the didactic situation, without which they lose their validity.

The concepts of teaching, instructing, educating, forming, and becoming are used often in this essay and they carry the following connotations:

Teaching [in Afrikaans, *onderwys*] and instructing [*onderrig*] are used as interchangeable concepts in the sense that an adult takes the initiative and directs children to something or clarifies it for them. The implied meaning of the Afrikaans '*onder*' is *inter* (between/among), implying a reciprocal showing or directing—an insight that has become obscured in some contemporary approaches to teaching. The mutual showing or directing indicates an attitude of give-and-take, with the teacher also learning! This suggests a course different from the teaching that only aims to convey or 'transfer' something to the children, with a teaching person being a mere catalyst.

'Educating' and 'forming' refer to those activities that give sense to instructing and teaching in that they constitute their aims (fundamentals).⁴

The concept 'becoming' is used in the sense that Nel (1968: 50; see also Nel 1974) uses and applies the term, namely, by considering the child in his or her becoming as a perceiving, imagining, remembering, thinking, and *understanding intentionality*, i.e. a person intent upon understanding. In this essay sometimes a child also is referred to as 'becoming', by which the above insights are implied with respect to a child-in-becoming.

Effective teaching requires a path from an elemental input to a fundamental result. This path cannot be left to chance. If it is, it will lead to ineffective teaching. The point of departure in which thinking about teaching and

thinking about educating are separated is conspicuously faulty. The path from the elemental to the fundamental is the same path on which teaching and educating are actualized—as indicated by the question ‘To what does the unlocking lead?’ *Unlocking an elemental stimulates a teaching effect that can be predominantly on a pathic-affective, gnostic-cognitive, or normative meaning-giving level.* There also will occur inspiring unlockings that lead to all three of these levels; the entire intellectual world and the whole person becomes changed by such a *fundamental* experience (Wagenschein 1963: 72).

Weniger (1962: Vol 1, 5) says that didactics is first and foremost a science of teaching and learning, but that it involves significantly more than the interaction between people. The above formulation, ‘more than the interaction between teaching and learning’, can be understood in part as indicating that the fundamental effect of an imaginative unlocking of educational contents can exceed and extend beyond its immediate effect. One should take note of Pestalozzi’s descriptions in this regard!

It has to be understood that all unlocking does not have a clear path to the fundamental. Contents unlocked for a child do not lead to a similar (identical) degree of knowing or insight. Teaching and learning are not two sides of the same coin. Both arise from an encountering activity between persons, and this alone makes it necessary that human *intentionality* be taken into account. The whole existential mystery of being human and of human becoming arises in determining the success of teaching. It is doubtful that any unlocking leaves a child untouched, except perhaps when, although he is physically present, other intellectual resources are absent or blurred. Successful teaching is gauged (judged) by a learning effect that, in turn, depends on a child’s acceptance of and his or her entrance and immersion into the unlocked contents. Without the child uniquely and authentically experiencing and making the contents his or her own, the didactic situation may well be constructed in vain.

‘So much to learn, so few are able to learn’

A problem as old as humanity itself is emphasized by the above lament by the great pedagogue-didactician Johann Heinrich Pestalozzi. It is a frustrating experience for any teacher when he or she realizes how few pupils are able to learn successfully, in spite of tireless attempts to unlock knowledge. If one has taught to the best of one’s abilities and the pupils’ independent attempts still leave much to be desired, the need arises to continually think about, and try, other ways of attack. Pestalozzi’s search for a more effective course on the path to the fundamental became his life-task.

The Tübingen Congress

In 1951, nearly 200 years after Pestalozzi, a congress convened in Tübingen, Germany with his lament of ‘so much to learn, so few are able to learn’ as its theme. Representatives from universities, high schools, and education authorities met at Tübingen to consider the didactic problem of the deluge

of learning materials. They were faced with a crisis: 'The German school system is in danger of suffocating because of an excess of learning contents' (Klafki 1954: 352).

The members of the congress did not have the charge of increasing children's learning achievement, but did stress that achievement is not possible without thoroughness, and thoroughness is out of the question without a *reduction* in learning contents. The key insight that emerged from the Tübingen Congress is of considerable importance, and has had a revolutionary effect on German didactic theory and practice during the decades following the Congress: The idea they pursued was that *original phenomena* of the intellectual world can be made clear to children by means of a few examples or 'pregnant' cases that ought to be (made) comprehensible to them. This aim is not realized when or if the phenomena that matter, that are of essential importance, are obscured by an accumulation of materials that are not really understood and, consequently, quickly forgotten. There followed an appeal that a *search for the essentials* of teaching contents should enjoy priority and be placed above any other didactic considerations, especially above further expansion of syllabi that spell out in detail what should be taught and learned.

The initial attempts to respond the charge of the Tübingen Congress centred on concepts such as 'original phenomena of the intellectual world', and 'penetrating to the essentials of the contents'. But contributions such as Herman Heimpel's (see Klafki 1954: 2, 3) concept of '*Exemplarisches Lehren und Lernen*' [exemplary teaching and learning] and Eduard Spranger's (1954: 3) address, 'Die Fruchtbarkeit des Elementaren' [The fruitfulness of the elemental], give an indication of the way in which a solution to the problem of the deluge of learning material was sought. This search was framed in terms of the problem of the *elemental* and the *fundamental*, of which Spranger's address is an example.

The elemental and the fundamental

So many authors have used the concepts 'the elemental' and 'the fundamental' that they have almost become platitudes in the German didactic literature.⁵ But as a *central aspect* of teaching, the problem of the elemental first appeared in Pestalozzi's work.

Johann Heinrich Pestalozzi

Pestalozzi believed that there are ways or methods that can make contents graspable, understandable, i.e. accessible, to a child. He said he was in search of 'elements', or an 'elemental method':

If this 'art' is acquired once, then its essential and necessary influence will work [in the teaching-learning situation] ... actualizing countless sleeping [dormant] human powers, and the effect will be million-fold in clarifying our present state of concealed and obscured insights regarding the essentials of teaching by placing them in a clearer light. (Klafki 1954: 3; Pestalozzi 1899–1902: Vol. 12: 465; my translation)

This gives us an idea of what Pestalozzi has in mind: if an art of teaching can be found, i.e. an elemental method, then first-rate ‘achievement’ might not be the result, but countless sleeping potentialities will be awakened in children’s minds. In other words, Pestalozzi proposed the idea of a fundamental, situation-surpassing effect for successful teaching rather than a mere cognitive grasp of contents. The *elemental method* is aimed at allowing human ‘potential’ to develop quicker and on a higher level than by ‘natural’ development (his term).

In his letter on his school in Stans, in which he writes about his problems with teaching and educating Stans’ neglected and wildly belligerent charges in (literal!) existential distress, Pestalozzi presents for the first time his theory of *moral elemental forming*. In the words of Klafki (1973: 23; my translation):

This moral elemental forming has three aspects that have to be brought home to children:

- striving for a moral frame of mind by purifying feelings;
- moral practice by self-mastery of what is good and right;
- the cultivation of a moral perspective by reflecting on and comparing correct and moral relationships that a child already is in through his or her *Dasein* [i.e. existence] and environment.

This elemental forming is directed at a person, with moral reality as the learning contents.

Flitner (1958: 53), who more than any other didactician has tried to explicate the fundamental, observes that what Pestalozzi describes as an elemental (i.e. reduced contents for teaching) really belongs to the domain of the fundamental (i.e. educational aims, learning effect). He above all seeks the fundamental—where the human spirit *becomes* as a *totality*. Viewed in this way, elemental forming can be sought in the terrain of the educated person (thus, the fundamental). However, Pestalozzi gets his fundamental effect by means of a child making an elemental his or her own. Children have to learn things such as attentiveness, obedience, and even joy before they will be, to use his term, ‘big-hearted’. It is not going to help to preach rules and orders; rather, children have to arrive at a moral standpoint through authentic acting, experiencing, and lived-experiencing (Klafki 1973: 25).

Later Pestalozzi took up the problem of teaching children of wide-ranging ages and talents (Weniger 1962: Vol. 1: 45). This brought the problem of learning material or contents into immediate and pertinent focus. The question that arose was *what* to teach and *how* this should be done. To address these problems, Pestalozzi continually sought the ‘elements’—ways of ‘elementalizing’ learning content, i.e. reducing learning content to its essentials. He viewed visual perception, i.e. observation, as the ‘general foundation of all human knowing, willing, suffering and doing’ (Klafki 1954: 28). He indicated an elemental-fundamental thrust in observing that understanding runs from sensory perceptions to clear concepts. Elsewhere he says the path has to run from observing the object to the object as an object of *my* judgement, which is evidence of a search for a child’s own taking a position as a learning effect.

The observing (meaning-giving) experience has to extract an essential element from reality and make it visible, thus making it also fathomable

(digestable). Children in the didactic situation acquire insight, understanding, and discernment, but also *see* (i.e. experience) *themselves*—which implies that they also acquire self-insight and self-understanding. Pestalozzi chose his objects to be observed so that a child would see himself or herself in his or her act of perceiving. Thus, it is observing and ‘digesting’ an elemental that speaks *fundamentally* to a child.

For Pestalozzi, the question of the elemental is a question of contents, and elemental methods have to figure in the didactic situation in order for it to be formative. All contents are not formative: the element that has to be introduced via visual observation in the *concrete case* has to be present, but it also has to be *general*—as an essential element of a larger whole or more comprehensive structure. Pestalozzi thus views the elemental as a means of unfolding contents and the fundamental as the skill a learner achieves in assimilating such contents.

The contributions of Pestalozzi to didactic theory and practice remain almost overpowering. No one who wants to speak authoritatively about teaching, learning, and educating can do so without taking cognizance of Pestalozzi’s contributions.

Friedrich Froebel

Many educationists who only know that Froebel (Klafki 1954: 102) was the founder of the Kindergarten are not aware that he did not view the children as being in the garden; they *are* the garden! His romantic-pantheistic view was also characterized by a deep religious conviction.

Strongly influenced by Pestalozzi, Froebel’s approach is also that of ‘observing’ as a teaching/learning method. In fact, he brought the concepts observation and *anticipation* into didactic discussion. For Froebel, observation has to be *lived-experience*—observing, and not merely sensory perceiving. Thus in the teaching situation there have to be *completed models* available for a child’s playing activity, but there also have to be those models that are being worked on. With the completed models a child finds illustrations that are focused on the elemental, namely, on the system from which they are derived. For Froebel, the fundamental lies in an effect that leads to intellectual development extending to a time *after* the learning material has been comprehended.

Observing, yes, but active, engaging observing by *doing* says this great advocate of *play* as a form of learning and as a method of teaching. Observing by doing is the elemental method, a means and end to forming (educating). Another of Froebel’s enlightening insights is that in a didactic situation a child *internalizes* outward appearances and *externalizes* the internal (the self). Froebel says that ‘externalizing the internal’ is the way by which a child arrives at knowledge and meaningful existence. He calls this a ‘life-view’ and, without using the terms, proposes the notion that the elemental is the knowledge gained and the fundamental is what he calls a meaningful existence.

Thus the concepts elemental and fundamental figure in many of Froebel’s conclusions. For example: an essential task of forming is to arrive at a fundamental, substantial relationship with reality. How does one do

this? Through an elemental, or in an elemental way. The elemental provides the access to the phenomenon that will bring a child to a substantial relationship with reality.

Froebel's aim to internalize the external and externalize the internal can be clarified in terms of the path from the elemental to the fundamental as criterion. Klafki (1954: 388) later took this concept further with his theory of 'double unlocking' (*doppelte Entschliessung*), namely the learning matter is unlocked to the child and the child's mind is opened for his or her encounter with the learning matter. To internalize the external means to unlock reality for a child in the learning situation so that he or she can meaningfully assimilate it. For Froebel this 'making one's own' occurs in terms of play or involvement with things. Making one's own, however, is *not* the end. The child has to externalize, but there also have to be actions that show that he or she can now think and act differently than before in the involvement with things. A child does not merely learn, but has to show mastery and flexibility in regard to what has been learned. The learner must give evidence of having gained *formative insight*. (This, of course, brings the whole problematic of evaluation and assessment to the fore, but that is not part of the current discussion.)

To Froebel knowledge implies knowledge *and* insight, an insight in which the particular resides in the general wherein the inner structure of the matter, affair, relationship, the logic of the matter (essence) are grasped, understood, or comprehended.⁶ However, Froebel contends that a child does *not* acquire this formative insight by generalizing from many individual cases; it is an insight exemplified in the *pregnant case*. Repetition can strengthen it, can make it flexible, *but the repetition does not gradually bring the insight forth!*

These comments by Froebel have an inherent relevance for didactic practice. In teaching languages, for instance, a child does not learn with insight if he or she repeats over and over. A learner learns with insight if one representative case with transferable possibilities (a 'pregnant case') is unlocked in an elemental way. The repetition comes with practising the insight, and then the manoeuvrability of this insightful knowledge follows, *not* the other way round. Knowledge and insight acquired in this way will remain even when the specifics are long forgotten.

The particular nature of Froebel's notion is in his statement that forming actualizes itself where the elemental appears as '*aufgehobene Genese*' which, as far as it can be translated, means 'spirited genesis' or perhaps 'concentrated becoming'. What Froebel presents here has significant didactic meaning: if the learning contents appear *purified* (another of his terms), they are elementals. The elementals become origins of learning. These 'origins of learning' are utilized for *genetic teaching* and learning that will have becoming (being educated) as effect.⁷

Acquired knowledge and insight, and their awareness, do not leave a child untouched. The child is an initiator of relationships (as meaning-giving intentionality), and anticipates a structured reality (Kant 1956). Froebel says that a child should go out in the anticipation of encountering reality. This intentionally directed anticipation is essential for successful unlocking. Observing without anticipating is, he says, an empty shell

(*Anschaauung ohne Ahnung ist leere Hülle*). For Froebel education has the task of awakening, practising, and strengthening the young learner's anticipation, inspiring him or her to look forward to things. A child is in the world as an anticipating being; however, awakened and practised anticipation is the fruit of successful teaching—and thus, anticipation can be nothing less than a didactical category or building block of a didactic theory (Van der Stoep 1969: 28).

Johann Friedrich Herbart

Initially Herbart was strongly influenced by Pestalozzi and the ideal of an elemental method resonates even in his later writings. Drawing on a theory of association, he built the idea of a course of lessons to such completeness that it can be viewed as the first attempt at a grounded lesson structure, or subject curriculum.

The aim of Herbart's search for elemental methods was to promote a learning person's involvement with his or her world. There has to be an inviting unlocking of contents which stimulates understanding, and consequently elevates a child's *dialogue* with his or her world. (The dialogue between humankind and the life-world figures in much of existential phenomenology.) Herbart is the first to describe simplifying contents as a *reduction* of the learning material, a concept later explicated by Van der Stoep (1969: 30) as a didactic category.

Herbart views the content that is made elemental by sustained, penetrating *reduction* as the simplest form of learning content. He describes the elemental (the core of the reduced contents) as characteristic of the structured learning content, and not strange to it.

The word 'fundamental' is not used as such by Herbart, although he insists that morality is a necessary learning aim. He seeks the fundamental effect by way of reflection on the worth of different areas of learning. Nohl (1951) indicates that 'numerous applications of reform pedagogics in "our" century [i.e. the 20th century] have, after many disappointments, discovered that these concepts have timeless validity for effective teaching'. However, what Nohl fails to clarify is the gap in Herbart's theorizing, namely, the essential path in the learning event leading from the elemental to fundamental insight. According to Flitner (1958: 52), a criterion for successful teaching is the *connection* of the elemental with the fundamental, and this is missing in Herbart's didactic system.

Seemingly Herbart, with his stages of learning, only moves in the terrain of the elemental: the contents are made child-ready and passed on. However, this would be a one-sided view of his attempts because he did discuss the importance of interests (*das Interesse*). Thus he views human *Dasein* (existence) as considerably more than assimilation. A person's active interest has to be stimulated and exercised so that it becomes a disposition that remains with the learner through his or her whole life. Training will pass; interests will persist for a lifetime. With this a life-relationship is laid down that can be interpreted as a *fundamental*, namely a life-long interest in what concerns the growing individual. What a child makes his or her own in

elemental ways (also as learning stages and associations) has to have fundamental relevance as life-meanings (as interests).

The gap in Herbart's didactics lies in the attention he gave to the step-wise unlocking of reality (i.e. explanations in stages) while at the same time setting high ideals for educating (forming, establishing interest). But he does not explore how a child acquires the desired life-relationships as an outcome from the differentiated, step-wise unlocking of contents that forms the basis of his didactic. He maintains that a child has to continually choose the good; but he fails to indicate which elemental has to be unlocked to bring a child to a desired fundamental disposition, such as 'rejecting the bad' and 'choosing the good'. Herbart's didactic theory and practice are not intrinsically directed to the path from unlocking in learning stages, the *engagement* (Fr), in order to arrive at acquired interest.

Otto Willmann (1923, 1930; see Klafki 1954: 180) offers a similar objection to Herbart's didactics, namely, that he was so concentrated on presenting worthwhile reduced knowledge in a lesson structure that he did not give sufficient attention to the assimilative thrust, nor give a clear indication of the path leading from teaching the reduced contents to establishing life-long interests. However Nohl (1951; see Klafki 1954: 147) was not wrong in referring to Herbart as the 'living Herbart'. In spite of gaps in his didactic theory and practice, there is much to be learned from Herbart's writings.

Friedrich Schleiermacher

With the slogan 'Search for the elemental', Pestalozzi and his followers had for the first time in pedagogic (didactic) history placed the elemental in a central position in the didactic field. They endeavoured to find the elemental (essential) views and insights by which the world of meaning could be unlocked for the learning child.

Herbart described a person's attunement to the essential as 'interest' '*Interesse*'. Achieving and developing interest reflects a didactic fundamental. Interest in Herbart's reasoning, as discussed earlier, means more than a mere passing interest. It is interest acquired by insightful mastery, that includes a being open to and conducting an open dialogue with reality and reflecting on the educand's interaction with other people.

Schleiermacher (1959: 123) clarified both concepts with his explication of the concept of the elemental. He starts from didactic reality. Two concepts figure prominently in his explanation, *Gesinnung* (i.e. contemplation, way of thinking, a disposition to think structurally) and *Fertigkeiten und Kenntnisse* (i.e. skills and knowledge) that, for some reason, he summarily calls *Fertigkeiten* (skills). Both concepts refer to a didactic fundamental that figures in two specifiable ways. On the one hand, an unlocking of contents leads to the skills and knowledge a child acquires in a teaching-learning (unlocking) situation. This already indicates a possible change in a child's being-in-the-world. But Schleiermacher also speaks of another fundamental, a basic relationship, a modification in the way he or she thinks. Both of the changed dispositions stem from learning contents that have been

successfully unlocked in their elemental (reduced content) form and have been made his or her own, that is, assimilated, by a learner.

For Schleiermacher, as for Pestalozzi, the method coheres with the art of finding the elements. This finding of 'elements' always has to *precede* unlocking the matter for a child. The contents have to be explored, i.e. analyzed, beforehand to determine which elements are essentials of the learning matter involved. To be able to carry out the reduction, one has to *work backwards* from the aim to the point of departure from where the unlocking is going to begin. In this way, it can be *teleologically* determined which elementals are nearest to the learner's life-world and might generate enhanced growth. For Schleiermacher the main point of such a framework for reduction is to not pass over the essential points in the act of reduction.

The teleological approach makes good sense: decide what desired outcomes you are striving for and then work *back* to the preferred elementals. The elements have to include the life-moment of a greater relationship, otherwise they do not qualify as elementals. For Schleiermacher, elementalizing is also an *intensification of contents*.

Schleiermacher qualifies the elemental as a scientific-didactic concept. It requires an act of abstraction to determine elementals; the elemental does not necessarily arise as discrete, differentiated contents pertaining to reality in the life-world. Elementals seldom, or never, figure as single, separately existing concepts. They figure as moments of reality in limited or larger *relationships*.

This protects Schleiermacher from searching for the 'elements' of language in words or sounds, as Pestalozzi did, because for him that does violence to the life-moment and the relationships of language. The elemental of language is *meaning* and not the individual word or sound. Only in this sense is language meaningful and is a relationship perceptible. Variations in the relationship of the life-moments will determine how easy or difficult the concepts will be for the children.

The elemental not only has to increase the spiritual permeation of the learning contents, it has to *guarantee* it. There either is an elemental passage to the contents for a child or there is not. There is mention of a '*fruitful moment*' when a child experiences insight.

The element (always intended within a didactic context) is clarified as the elemental, but at the same time is representative of the whole of the contents. It emanates from the *intrinsic structure* of the area of reality to which it belongs. Reality is not diffuse; it has an *internal* and *external structuredness*. The elemental that includes a life- or reality-moment is not separate from or outside of the greater reality that it represents. It is a concrete *representation* of the general (Van der Stoep 1969: 123)

It is very important for Schleiermacher (and for anyone who wants to think accountably about instructing and teaching) that the elemental is not comprehensible either by splintering or as a yardstick or scheme of things. 'Splintering' in language teaching refers to reducing language to an isolated word, and losing its relationship with coherent language in the life-world. A study of parts of speech without context does not make the living language intelligible to a child. In the same way, systematizing or schematizing, thought-constructions, cannot make known to a child the living reality with

which he or she has to establish a relationship. It is for this reason that so much mathematics teaching, for instance, does not make logical sense to many learners.

According to Schleiermacher (1959: 36) a child makes the elemental his or her own by abstracting, but the learner has to have or show a willingness/openness to let the essentials of what is abstracted be disclosed. This embodies a necessary task for didactic epistemology: to disclose the making-one's-own by a child, and passing this on to didactic practice as 'equipment' which launches successful unlocking. Investigating the child as potentiality for abstracting requires epistemological research, without which didactic practice has to 'grope' its way.

Schleiermacher's valuable contribution to didactic epistemology and practice is his insight that success of teaching does not necessarily depend on a purely systematic foundation but on *the fruitfulness* of the process of unlocking reality as an accountable didactic activity demanded by normative thinking.

Otto Frick

According to Frick (Klafki 1954: 186) the task of all teaching is to disclose and make understandable the elements that are at the foundation of things. This can happen if a child is afforded the opportunity, by means of concrete types, prints, etc., to personally discover, disclose, and explore.

The contribution of Frick to our insight into the elemental and the fundamental is his understanding that the typical course of didactic activity is where reality, reduced to an elemental, is unlocked for a child and becomes his or her own fundamental method to personally attempt to unlock reality. Such a typical attunement by a child clearly constitutes a fundamental approach in that the educand actually challenges reality. To Frick, a learning child gains insight in two ways:

- through elemental unlocking; and
- by making the *method* of unlocking his or her own and utilizing that method in future dealings with reality.

Frick broaches a matter of importance, namely that teaching and educating are actualized in *one and the same* activity. Educating is not possible without teaching, and teaching finds its meaning in educating. The fundamental question about teaching and educating revolves around the quality of the unlocking of the elemental that is manifested in the learning that as a fundamental also has an effect on the *intensification of life* and the enhancement of a child's very existence.

A line can be drawn from Pestalozzi through Herbart to Frick insofar as there is a search for an unlocking of the elemental. Frick refers to the elemental as the child's viewing of *representations* of the essentials. Strikingly, Frick talks of the reduced contents as 'formative' material. The elemental contents have a mediating (propaedeutic) character and always reveal the essence of a whole 'group' of details (data).

For Frick there is a clearly evident path from the elemental as *Bildungsinhalt* (teaching contents) to *Bildungsgehalt* (the formative quality or

worthwhile fruits of education).⁸ The fruit of the activity of unlocking is not so much in what is afterwards understood, but in the quality of the ‘forming’ (‘education’, *Bildungsgehalt*) that has been brought about by the purposeful unlocking of contents to a child-in-distress.⁹

Otto Willmann

Willmann (Klafki 1954: 180; see Willmann 1923, 1930) stresses that contents vary in their formative quality. The fundamental fall-out of didactic unlocking is sought by Willmann in what he calls ‘basic’ or ‘fundamental attitudes’. Some contents have the possibility of a clearer path to a basic attitude than others.

In contrast to Herbart and the Herbartians, who would work through a clear representation, Willmann would rather see the result of an effective didactic activity manifested in a basic attitude (taking a position) on the part of the learner. He also asks what apperception really is and what significance it holds for didactic theory and practice.¹⁰

Because of its essential significance for the theory of the elemental and the fundamental, the difference in planned learning effects between the Herbartians and the meaningful intentional learning Willmann opts for needs further explication. In my discussion of Schleiermacher I indicated that finding the elemental should occur teleologically, by looking back from the aim or educational purpose of the unlocking to the contents and, in doing so, determining what elemental is going to be introduced as reduced or *intensified* content.¹¹

It follows that if one works back from a clear concept of the desired attitude there is the possibility of selecting significant elementals. For instance, when one explores a field of contents from particular basic attitudes as a manifestation of the learner’s insights and abilities, one should have a clear indication of what best to teach. Before any unlocking (explanation, teaching), the question that must be asked is if the learning aim provides a way to a clear representation, to a particular basic attitude, or dominant conviction. A changed basic attitude holds the possibility of modified life-meaning that can be of a more lasting nature than a clear presentation.

Willmann’s didactic theory-building (and his approach to establishing a teaching-learning practice) can be criticized as being positivistic—one gets the impression that he attributes intrinsic ‘power’ to contents to bring about basic attitudes in the learners. This disregards the notion of existential phenomenologists that the learning child has meaning-giving *intentionality* and open possibilities in exercising his or her choices. Although it is certainly the case that some contents lend themselves better to establishing a stronger basic attitude, many other factors also have to be taken into account.

In addition, one has to keep in mind what Scheuerl (1958: 82) says about the elemental, namely, that ‘it exemplifies something for someone’. Granted, elementals are not equally suited for all learners. The child remains an affective, cognitive, and meaning-giving possibility and this co-determines if a weaker or stronger basic attitude will take root. The preconditions of stable, labile, or impulsive lived-experiences of the given contents and the quality of

the unlocking of reality are factors that co-define whether the contents are going to have the desired formative value. For Willman successful teaching follows the course of the elemental as a *typical principle*. By means of such a course basic attitudes are brought home to a child constituting performance categories for future dealings with essentially similar contents. These performance categories and basic attitudes are descriptively characterized as *fundamentals*.

Richard Seyfert

Seyfert (Klafki 1954: 250–258; Seyfert 1907, 1930) contended that the syllabi of the time tried to cover too much. He endeavoured to limit learning material to the essentials of the subject contents by unlocking the ‘*typical*’. A child has to master elements that will lead to knowledge and insight. These elements, as core material, have to be that which discloses the essence of a learning area. For Seyfert, it is the typical, reciprocal themes, core material, and simplest elements that provide the path for the effective introduction of the learning contents (Klafki 1954: 250).

Formative contents have a formative quality and value, and Seyfert clearly shows a clear path from the elemental to the fundamental. The learner first has to make the formative contents his or her own and *assimilate* them in their *essentials*; in the second place (and here follows his fundamental), the learner has to allow them to become externalized in order to *act as a formed person*.

Seyfert talks of a child mastering ‘categorical insights’. He thus gives the sound advice to the teacher, as an *unlocker of reality*, to reflect on the learning matter that was meaningful and essential for his or her own forming. With this in mind, the teacher has to seek to fathom the essentials of the subject-matter and unlock them for a child so that the latter can achieve ‘categorical insight’.

Josef Derbolav

Derbolav (1963: 29) writes about the *exemplary* as a didactic principle that, in his view, had not been elucidated theoretically and systematically, or made room for in the framework of pedagogics. I place Derbolav’s contributions about the exemplary under the larger theme of the elemental and sketch the fundamental breakthrough that Derbolav offers.

Derbolav’s (1970) search for a didactic theory was also influenced by the post-war question of the deluge of content being included in curricula. He looks for the elemental in the *exemplary case* and argues that *the rare and wonderful* are to be found in the ordinary.¹²

Derbolav contends that the course of teaching should not be built up systematically but *thematically*, and the learning contents should not be presented dogmatically but heuristically—*by way of discovery*. That is, children should not be forced into an insight but need to have the opportunity to make their own deductions and find things out for themselves. He views

the elemental as a *thematic condensation* rather than an omission of parts of a possible content. The choice and *heuristic development* of the ‘theme’ has a genetic (becoming) foundation, and although, for example, history is going to be ‘narrated’, that narration does not have to be structured chronologically but can be structured in terms of the themes of origins and relevance to living.

For Derbolav this amounts to digesting the representation of the whole of a subject or area in one or more basic themes and bringing them within a child’s grasp didactically. He offers an observation that touches the whole sense and scope of this activity. He asks the open question whether it is unequivocally possible to make learning contents accessible to children, and whether underlying this activity there are a large number of ways that can be distinguished for representing the contents. Such an approach will show that contents *can* be made accessible to children because there are many ways to *represent* and interpret any piece of content, all falling under the comprehensive concept of the elemental.

In addition, Derbolav refers to other basic aspects of the elemental:

- it will give rise to foresight and basic knowledge;
- it will establish a method of transfer (‘unlocking’); and
- it also will further elucidate primordial human motives.

With this last function of the elemental we are squarely in the area of the fundamental. The disciplines must not only be seen in terms of their development and clarified in terms of their human significance, but they also have to make the fundamental phenomena of existence understandable. From this it can clearly be seen how Derbolav (1970) aims for an authentic path from the disciplines to a person’s becoming and taking his or her own position, i.e. an unlocking in terms of reduced contents.

In the light of the propaedeutic character of teaching, Derbolav highlights two essentials, or characteristics, regarding this aspect of teaching. The first essential is that pupils learn from the encounter with the ‘*spirit*’ of the discipline, if they remain responsive. The second essential is that a child/learner who experiences the unlocking of an elemental has in hand the *key* to a larger world of learning. With this key or insight, a child can independently open locked contents until ‘the obvious and yet unfathomable contents become transparent’ (Derbolav 1957: 53).

Thus Derbolav unfolds two *fundamentalia*: first, the *spirit or ethos* of the contents of the discipline that addresses a learning child in his or her very existence—through which insights are acquired that become *keys* for meaningful future involvement with reality. Second, there is the fundamental that is ‘transmitted’ to a child by unlocking the elementals that function *propaedeutically* (Gr. *pro* + *paideuo*, i.e. preparing for).

Derbolav maintains that the first propaedeutic characteristic proceeds to the second. If children are first able to experience the ‘spirit’ of the content area in question, they will proceed to lead their lives meaningfully and independently in that they follow the principles of thinking and interpretation inherent to the content areas they have mastered. Thus for Derbolav unlocking elementals (i.e. exemplary teaching) is always foundational—it is the foundation of the disciplinary structure that is unlocked, and it becomes the foundation for a child’s becoming (Derbolav 1963: 33).

Eduard Spranger

Two questions provide Spranger (1954) with a starting point for his discussion of the problem of learning contents:

- How can I intervene formatively? and
- How can I find suitable and pliable formative material in terms of which I can educate?

His response is that general cultural materials assume the character of formative material in the hands of a *born educator*. However, this does not occur without reducing the contents (to their essentials). In other words, effective teaching cannot occur without the fruitful unlocking of elementals. It is the teacher's task to elementalize by reaching into the very essences of the meaning of the contents.

Derbolav's (1957: 39) comment on Spranger's view of the elemental also suggests the fundamental. He says that for Spranger the elemental is not only foundational for the whole but at the same time facilitates an unlocking of other, additional cases. Thus for Spranger the path from the elemental to the fundamental is an open book. In his words, at the end of such a successful unlocking a silent 'aha' has to arise (*das Aha-Erlebnis*). Such teaching constitutes a lived-experience by a child that something special has opened to him or her.

Spranger's contribution to the problem area of the elemental and the fundamental is as significant as is his contribution to didactic and pedagogic theory-building. He views the 'born' teacher as one who views the bewildering overload of learning contents with equanimity. Such a teacher is equipped to reduce the contents and present them in such a manner that a learner can assimilate, conquer, and virtually experience such concentrated contents (if possible as an 'aha'-experience).

Finally, Spranger indicates that from an act of 'fruitful' unlocking a *moment of clarity* appears for learners that, like a ray of light, brightens their path, inspiring them to investigate structurally-related things. Spranger's view that *successful unlocking reveals fundamental phenomena that enlighten structurally-related things* can be compared to Landman's (Landman and Roos 1973: 4) description of a 'category' as a means of *illuminative thinking*. For the child, reality is unlocked categorically; such an unlocking equips children with categories to explore and meaningfully unlock things for themselves with the light (i.e. category) that has been 'turned on' for him or her. (This constitutes a useful description of categorical forming. RAK) According to Spranger, with such an acquired light ('penetrative insight') a child is equipped to investigate scientific structures (contents) independently. Thus for Spranger, authentic *didaskhein* (teaching) cuts deeper than a technique or skill for unlocking knowledge. It is the *art of breaking the bread of life* for a child (Derbolav 1963: 136).¹³

Erich Weniger

According to Weniger, methods in didactic practice are only *forms* of human encounter. The contents in terms of which teaching occurs spring from

different subject disciplines and have to be presented to a child being taught so that he or she experiences the particular field of study as easy. It goes against Weniger's grain that a child who has to be taught and educated is overlooked by the choice of elemental contents that overemphasize the subject contents.

Teaching-learning practices must not fall prone to 'didactic materialism' where the educational material swamps the eager learner. Weniger criticizes those who would establish a teaching practice wherein the stated aim is 'scientific', the methods are described as the 'scientific' method, and forming is then a 'scientific' forming. By following this line of reasoning the scientific structure is reduced to the didactic structure and the scientific to the didactic (a positivistic approach).

It follows that Weniger views favourably the practice of those who command the contents of the subject sciences *and* who also are didactically schooled. Teaching must not only be focused on broadening and deepening knowledge. A child must be lead towards taking actual positions with respect to the everyday problems of the time. Through imaginative teaching a child has to be lead to live a meaningful life.

The teacher's task is to unlock what is necessary for a child to fulfill life's demands (*not only* school demands): '*non scholae sed vitae discimus*'—'we teach for life and not for school'. Contents have to be 'represented', i.e. figure as elementals. The teacher has to 'represent what to a child is unlimited' so he or she can 'experience it as easy', i.e. to facilitate an elemental-fundamental process. A child has to gain lived-experience through simplified (reduced) contents.

This act of reduction has to be carried out so that an event in, e.g. history that has been presented to a class becomes important to every child. The elemental has to function in concrete time and make time concrete. Furthermore, the formative work of the didactic activity has to push through to where the mental power in a child is developed so that he or she can advance purposefully toward mastering the future demands of life. *Forming makes a person free* because, by means of teaching, a child acquires the power of discretion and the power to act meaningfully, thus becoming equipped for the demands of life. Weniger (1963: Vol. 1: 66) uses the phrase 'the other function of forming': one function is the unlocking of contents and that has cognitive insight as its aim; the other function of forming refers to insights and 'powers' that equip a child to live his or her life progressively, meaningfully.

For Weniger, teaching also is propaedeutic in nature, and thus all unlocking of elementals contribute to a child's preparation for life. Thus for Weniger there is no separation between a teaching aim and an educational aim. To actualize educative teaching the didactician is required to think self-consciously about those contents that have formative value. He or she has to reflect on those contents and 'forms of ripening' that bring about a spiritual opening up that prepares a child for the complex and demanding experiences of living, to accept willingly the responsibility to lead an accountable, meaningful life.

Parents and teachers are the great mediators in this world because they stand between the child and the complicated contents of the life-world.

They do not stand there in isolation but, for the child, are intertwined with the contents. The parent/adult who enters a child's *life-horizon* becomes the most important part of his or her world. The adult becomes part and parcel of the young person's life-contents and, consequently, has to unlock and open himself to the child, and become accessible. It is a profound didactic insight that the adult has to bring the child close to him or her in order to establish a formative didactic encounter in which the child is an active participant. A child acquires his or her forming by means of total mental and spiritual involvement (Fr. *engagement*) with the adult.

Another of Weniger's insights is his view of a child's (a person's) *personality*. Personality is not the fundamental product of the formative moments but is the attitude resulting from a demandingly-lived life. The child's personality evolves through his or her intentional encounter with the world and reality. He or she becomes a personality *not* merely as a result of elemental assimilations that have had a fundamental impact on him or her, but by how that child lives his or her life with regard to the *fundamentals* that, in the course of teaching, have enriched him or her. Thus for Weniger, personality crystallizes by *functionalizing the fundamentals*—something that each child has to personally actualize before the benefits can be reaped.

Wolfgang Klafki

The problem of the elemental and the fundamental is fully treated and reinterpreted by Klafki in his major work, *Das pädagogische Problem des Elementaren und die Theorie der kategorialen Bildung* [*The pedagogical problem of the elemental and the theory of categorical forming*] (1954). It is mainly in terms of Klafki's findings that the problem of this essay is framed, and this is reflected in the many references to his work. Along with his theory of the elemental and the fundamental, Klafki advances his theory of categorical forming, which he describes as the *double unlocking* in the didactic situation leading to forming. This theory needs to be enlightened in the framework of the didactic reality.

Klafki indicates that there are a variety of ways the fundamental and the elemental can appear. In the case of a fundamental, it has the character of a *foundational experience*, or a lived-experience. Some formative contents are only accessible in experiencing and lived-experiencing (Derbolav 1963: 158, Klafki 1954: 442). Klafki describes some of the many manifestations of the elemental, namely: the *exemplary*, the *typical*, the *classical*, the *representative*, the *simple form*, the *simple aim form*, the *simple aesthetic form*, etc.

The varied forms in which the elemental can appear are discussed and summarized later in this essay. For Klafki, the elemental is the only acceptable form in which contents should appear in a teaching-learning situation for them to be *formative contents*. It is the only way that contents can have formative value. In particular, in 'fruitful moments' during interaction in a didactic situation the fundamental appears to address the child fundamentally, as a being who is learning and becoming. Without a child's lived-experiencing the real value of the fundamentals a teaching activity cannot be genuinely formative.

The elemental is the embodiment of contents ready to be unlocked for a learning child. It refers to a relationship of the formative content to the reality that is represented in the elemental. It is only because formative contents figure as relatively simple that they enable the teacher to unlock the formative reality for a child. The foundational experience or lived-experience of contents and unlocked elementals are described as fundamentals.

Spiritual appropriation and mental control are only possible for the learner by means of concrete experience of educational content. For formative effect, this involves making certain fundamental categories living, spiritual possessions, and sometimes even shattering experiences, for the becoming child. This succeeds by unlocking the concrete exemplar, the single case, the historical moment, etc. The child recognizes the non-concrete and non-individual case in each of the elementals (Klafki 1954: 388).

Klafki offers an explanation of the various problems connected to the elemental and the fundamental. But he does not bring the problem of the passage from the elemental to the fundamental, the elemental-fundamental thrust, clearly to the fore. However, nobody has explained the twofold unlocking, a prerequisite when establishing a didactic situation, better than Klafki. Thus, for Klafki, the didactician has to attend to two unlockings. The contents, learning matter, subject content, or whatever it may be called, must be unlocked, opened, clarified to the expectant learner in a reduced form as elemental. The other side of the coin involves the learner, child, educand—the learning person. This person has to be approached in such a manner that he or she is open and willing to participate eagerly in the didactic situation. This engagement between opened contents and opened learner can result in categorical forming (*Kategoriale Bildung*).

Julius Drechsler

Drechsler (1967) maintains a purely anthropological point of departure that gives rise to clear and worthwhile findings regarding didactic pedagogics. He places language before all other subjects because, viewed anthropologically, it embodies an authentic way of being in the world (pp. 73–74). He sees language as both elemental and fundamental: by means of language concepts are made child-accessible and elementals are unlocked. However, Drechsler does not fall into the didactically questionable view that language and subject terminology have to be clarified beforehand. Language is an elemental insofar as it is a *medium* for unlocking contents.

Didactic unlockings lead to learning effects and to a child taking fundamental positions. For a child, language is a fundamental necessity for aiding his or her verbalizing of, or understanding, the changing positions he or she takes. Without language there cannot be a meaningful interpretation of the world and reality. In this respect language is in itself a fundamental.

For Drechsler (1967: 38–39) didactic discussion of forming, and didactic theory and practice, should always place forming above teaching. In teaching there needs to be mention only of the reality (objects) that becomes known, while in forming the world is unlocked for a child. The fundamental moves a child to a comprehensive view of reality and world. The concept

world refers to a world already acquired and assimilated, and to which a child continually directs himself or herself.

In a didactic sense forming (being educated—*gebildet sein*) is characterized by contents that make reality discernible in such a manner that from this reality a world of meaning-giving can be continually created, i.e. established, by a pupil. There are gradations in the intensity of a child's involvement with the contents. Only from adequate contents (adequate unlocking) does a child acquire a true view of himself and herself as well as reality.

Drechsler follows Klafki in his view of the double-sided unlocking of categorical forming. In both cases it is understood that an adult unlocker (person who explains, clarifies) is a precondition for all formative and categorical unlocking (Drechsler 1967: 60). Thus the social-pedagogic aspect of the didactic situation is seen by Drechsler as a path to a child's fundamental being—as a result of his or her active dealings with a co-being who has entered his or her life-horizon in a didactic situation.

Drechsler shows that the original root of the words *Unterricht*, 'onderrig' (to teach) is 'inter-rig' (direct among). He then interprets this directing each other as implying that the verbal interaction in the learning situation will not allow a child to remain where he or she finds himself or herself. Rather the learning person is directed to what he or she can become or *ought to be*. Thus the adult directs a learning child to adopt the essential contents, and in this way he or she is gradually led to adulthood and responsibility. However, instructing (*Unterricht*), also implies a *reciprocal* direction that amounts to the teacher (adult) also being touched and changed(!) by entering this inter-directing encounter. Three preconditions exist for establishing a didactic teaching (instructing) situation: the adult, the child, and the contents. Teaching as an unlocking activity bent on 'reciprocal direction' necessarily requires all three of these moments.

Should Klafki's two-folded unfolding be extended to a threefold unlocking? Regarding the elemental and the fundamental, Drechsler (1967: 61–62) follows Klafki's conclusion. The fundamental appears only when the elemental is worked through to it by means of the 'educational thrust'. The elemental has to be considered in close connection with unlocking contents and the theory of categorical forming, while the fundamental embraces the entire pedagogic and moral educative benefit emanating from the learners open-minded participation. One can then ask to what extent the fundamental can be reached through didactic endeavour. Drechsler (1967: 61) cites Klafki (1954) who, in turn, brings forward the contributions of several authors to indicate how in all understandings there has to be a passage from the elemental to the fundamental. The fundamental has an existential-spiritual character while the elemental primarily possesses a material (content-based) unlocking and introductory character.

Friedrich Copei

Friedrich Copei is known as the person who thought about and described the 'fruitful moment' in the act of teaching and learning (Gerner 1963: 136). Contents that are reduced to elementals have to be presented to a child in

such a way that he or she can independently uncover their essentials. An insight has to arise almost abruptly, the so-called 'aha-experience'. That to Copei (1963) is the fruitful moment when a child's experiences and lived-experiences become a discovery of the wonder of contents and life.

Copei greatly values a pupil's questions and rates a questioning attitude very highly. It is necessary that a *questioning attitude* arises in a child that, in its unfolding, eventually leads him or her to acquire insights into meaningful contents. This 'fruitful moment' is not a process that can be repeated with any regularity, but rather has to be seen as the culminating point of an effective didactic engagement in which pupils master insight into contents as well as methods of inquiry with which to deal with the vicissitudes of reality.

Klafki (1954: 280) concludes his discussion of Copei's contributions to didactic pedagogics by saying that in 'fruitful moments subject and object, mind, and world fuse'. For Drechsler (1967: 104) the matter of a fruitful moment in unlocking refers back to the maieutic that first appeared in the works of Socrates, namely, that all learning and all teaching have to penetrate to those essential cores from which a person's authentic existence (*Sein* or *Dasein*) is formed.

For Copei, a step-by-step course of teaching is unacceptable. Such a fixed, systematic course is detrimental because it forces a child to stick to the logical structure of the factual data ('didactic materialism'). Rather stick to a pedagogic course which, by means of a fruitful moment, reaches for a fundamental that elevates the learner to larger (higher) structures of reality. This way the learner has the considerable advantages of understanding, *anticipating*, and (above all) *transcending*. The difference between a binding and enslaving methodology and an unlocking, *liberating* didactic is very clear. A dominating, binding, constraining methodology stands in stark contrast to a *freedom-giving*, liberating personal mastery of contents. This to Copei is the ideal to strive for in the search for a fruit-bearing pedagogy (Drechsler 1967: 102).

Leonhard Lahrmann

In 1972 Leonhard Lahrmann published his *Phantasie und Elementares Lernen* [*Fantasy and elemental learning*]. This book offers a special contribution to our insights into a child's becoming and didactics. He contends that a child is as much a fantasy- as a knowing-being, and that didactic activity has to be such that a child as a fantasizing being is given full recognition (p. 8). I understand Lahrmann's 'fantasizing' as a vivid imagination, and imagination as one of the modes or ways of being in the world.

In a didactic situation both the 'things', i.e. contents, and the child change. The child as intentionality changes the contents to *contents-for-him or her*; Lahrmann cites Nietzsche who says 'To learn is to change' (*Das Lernen ändert uns*). The adult is not always aware of the nature of the changes that occur in a child, and Lahrmann concedes that the act of making the contents 'one's own' will always be *unique*. Learning is not predictable, exact, and strictly organizable.

Nevertheless, a practice has to be established on the basis of acquired insights into teaching and learning. A practice directed at forming (being

educated) aims at establishing a course of teaching and learning that meets the fantasizing needs of the pupils (p. 69). It is imagination, or a situation-overriding fantasy, that will provide access and assimilative powers to the learning child. It is this rational fantasy that makes it possible for him or her to step onto the new ground that the fundamentals provide.

For Lahrmann fantasy functions as the ground for every human activity, and especially for learning. He contends that the concepts learning and experiencing are closely linked in their meaning. On the one hand, learning precedes experiencing, but in other respects it builds on experiences (p. 74). With Kant he says that experiencing gives us our first encounter with reality. Hegel also believed that experiencing is the *beginning* of learning, but then the child must be there himself or herself, not only by means of his or her senses but with *deepest spirit*, with imaginative *self-awareness*.

Lahrmann subsequently asks to what degree a child's fantasy develops. To what degree does a learning child's experiences stimulate this powerful mode of humankind's being-in-the-world? Learning never starts from zero—as opposed to the theory of the *tabula rasa*. There are always experiences that have preceded the learning incident. There is experiencing as acquiring, but there also is experience that is congealed. Activities like remembering and memory are only possible through the functioning of fantasy (scrutinizing imagination).

Lahrmann summarizes the elemental by way of five ideas:

- The possibility that the general can be included in a particular;
- The transfer effect of these general things;
- Its double function, that is, it *unlocks reality* for a child and *unlocks a child* for reality;
- The extension of the elemental into the question-loaded, meaning-imbued reality;
- The connectedness of the elemental to the means of understanding and self-activity.

Thus, for Lahrmann, the elemental is pedagogically relevant.

In regard to the fundamentals Lahrmann pleads that a path be kept open so that children's fantasy, that is, their guiding imaginations, can direct them onwards, and consequently allow them to become genuine learned persons with all the imaginative aplomb associated with that notion. The elemental unlocking has to be directed to the stimulation and fostering of mental images related to a childlike being-in-the-world as a situation-surpassing, but rational fantasy. (p. 144).

Synthesis

I have sought to investigate and interpret the didactical significance of the theory of the elemental and the fundamental as it appears in the writings of selected German didacticians. The interpretations I now present deal with the educational necessity and didactical worth of the various statements and arguments in this regard.

According to Klafki the contents selected for teaching and learning should be reduced to a teachable and assimilable form in order to be formative. That can best happen when they are reduced, basic, i.e. *elemental*. Life-world contents that are selected for didactic purposes have a structure that should be presented to the learner in elemental (digestible) form. I consider first the elemental because the fundamental (behaviour as proof of fruitful didactic interchange) appears only when it has been reached through the elemental (Drechsler 1967: 20).

The elemental (*Das Elementare*)

'Reducing' contents does not mean a splintering of the learning material, or that a part of a whole is presented. It refers to the essential ingredient, the very nucleus of the whole content (Schiefele 1963: 93). Schleiermacher says each elemental possesses essential life-related aspects that have to be unlocked to the eager learner. It may be useful to compare this reduction of the learning content to the way a magnifying glass concentrates light in one spot to create such heat that a fire can be started.

Several writers indicate that the elemental is *teleologically* determined; that is, it is an essential view of the important aspects of the didactic contents in terms of the aims to be achieved in a given lesson. They also indicate that elementals are not isolated and do not appear in the life-world as single, discrete existing unities but they are always related to other elementals within the whole of the content field. They have to be *abstracted* from the selected contents.

A final remark comes from Wagenschein (1966: 37) who maintains that the elemental is the *simple form* that is not so simple ('*das Einfache das nicht so einfach ist*'). This truth becomes apparent in the formidable range and variation of the statements about the elemental that follow.

The elemental

What follows is a rendering of the multitude of forms in which the elemental can appear as garnered from the literature I surveyed. The idea behind the listing of such a comprehensive array of statements is not only to establish beyond doubt the elemental's relevance for didactic theory and practice, but also to present working models for teachers/didacticians who want to venture into this field of establishing successful teaching-learning situations. No specific order has been chosen. This is simply an ad hoc list:

- The elemental is reduced content.
- The elemental is an essential aspect of reality.
- The elemental is an actual or lived moment of reality.
- The elemental is a central aspect of the structure of the chosen contents.
- The elemental is a category of reality.
- The elemental is 'elementarized' (i.e. simplified) contents.
- The elemental is an intrinsic (vital) part of the learning contents.

- The elemental promotes collective, unifying, liberating becoming. Contents are not themselves becoming, but predispose becoming, or make it possible because as teaching contents they are ‘pregnant cases’.
- The elemental is the bearer of the exemplary, and is also exemplary. Scheuerl (1958: 16) says the elemental is always exemplary *of* something *for* someone. The question is whether the elemental is embedded in the exemplary principle, or the other way round. The essential simplicity to which the contents are reduced is the elemental, which is the comprehensive concept. The exemplary principle is embedded in the elemental.
- The elemental is a principle, law, and even a definition.
- The elemental is valid life-moments—containing ‘reduced’ content.
- The elemental is a typical principle.
- The elemental is an *intensification* of reality.
- The elemental is included in the pregnant example.
- The elemental is also elementary.
- The elemental is a condensation of content.
- The elemental is an interpretation of the essential meaning inherent in the learning content.
- The elemental is an example, exemple, sample, and even a paradigm.
- The elemental is a detail, or particular representation of a generality.
- The elemental is a concretization of space and time.
- The elemental is a pure case.
- The elemental is an embodiment of content.
- The elemental is condensed content.
- The elemental is concise content.
- The elemental is a focal point of the learning content and as such potentially a centre of becoming.
- The elemental is a symbol, or is symbolic of reality.
- The elemental is a formative means, or a formative means concerned with optimizing *Dasein* (optimizing essentially human existence).
- The elemental is reduced and abstracted knowledge. However, this reduced and abstracted learning contents comprises knowledge that is intended to lead to a meaningful existence.
- The elemental is authentic. Although the elemental is always elemental *of something* and *for someone*, it must always be characterized as *authentically* embodying life-world and learning contents in spite of the reduction that necessarily has to occur.
- The elemental is a reduced relationship to reality.
- The elemental is propaedeutic in nature; it leads on to something.
- The elemental is the field of concentration for didactic work, that is, didactic work finds its course by concentrating on the field of the elemental.
- The elemental is concentrated contents or a concentrated form of reality.
- The elemental is a dialogue between the essence of and the accidentals of the contents.
- The elemental is the point of departure for two-fold unlocking (Klafki).

- The elemental is basic life-contents (Flitner, Klafki).
- The elemental is not only basic, but when it also facilitates or actualizes becoming, it is foundational, that is, reaching to the foundations of meaningful existence.
- The elemental is representative of the intrinsic forms in which the contents of reality appear.
- The elemental can be imbedded in the classical case.
- The elemental comprises fantasy-evoking experience leading to imaginative life-experience.

Didactic interpretation of the elemental

The elemental is not valid outside of the activities of a didactic situation. Since the elemental is described as the field of concentration for didactic work, it should not be looked for outside a didactic situation. It is not a field of concentration in and for itself—it is a field of concentration when it is used as formative contents in the activity of unlocking learning contents. Only then does it become the focal point of the contents and the centre-point of becoming.

In the same way, each statement about and disclosure of the elemental is viewed as valid only within the context of didactic practice. The teacher has the task of investigating and elucidating the elemental, thus giving validity to the form in which it appears in the activity of unlocking knowledge. Outside this situation, any conclusions about the elemental (and also the fundamental) are void of meaning. One should not ascribe to contents the possibility of independently actualizing teaching. Teaching cannot occur without a teacher/didactician stepping in and unlocking knowledge/contents to a child.

All the forms in which the elemental appears (see the above listing) are dependent on how each elemental represents ‘reality’ in a didactic situation. Reality means involvement with the life-world, i.e. with reality as experienced. Reality is comprehensive and differentiated, and it will become attenuated if it is not presented in several ways. In addition, Kerschensteiner’s (1926; see Klafki 1954: 219) point that each subject area has its own distinctive characteristics should also be kept in mind. Some elementals or representations lend themselves better to explaining some subject areas while other subjects find different elementals more relevant to their needs.

To select some of the forms of the elemental as better or more appropriate and to elevate them as the only way of the unlocking by which reality should be represented amounts to ‘elemental hypostatizing’ (Van der Stoep 1972: 24). Didactic practice is better served by an attitude that is open to still more ways of representing reality. Reflecting on the forms of the elemental, viewed against the background of their functioning in the didactic situation, is the only valid way in which the elemental ought to be interpreted.

Becoming is essentially what lies on a person’s path—a person becomes, contents do not. In this sense ‘becoming’ has a metaphorical meaning. Contents abstracted and prepared for a child in a learning situation are meant to actualize his or her becoming. Reference to the elemental as

'formative contents' or 'formative material' has to be viewed as elementalized reality introduced in the didactic situation as contents in terms of which a child's becoming, forming, or educating is to be pursued.

View the above reasoning in terms of the reduction of contents first from the greater reality and then to educational contents that have been made accessible to a child by an adult in a didactic situation. It is understood that didactic engagement does not end here, but that the learning child has to make these contents his or her own, and that his or her becoming flourishes because of the learner's internalizing such contents. Viewed against this background, educational contents becomes didactically and educationally tenable.

Klafki's definition of the elemental as double-sided (two-fold) unlocking should be understood in the same manner. The elemental has first to be conceptualized by an adult. Then it has to be unlocked for a child in a didactic situation. A learning child participating in a didactic situation has to open himself or herself to (show interest in) the offered contents and with an openness of mind strive to acquire the contents (unlocked reality). When this happens, categorical forming occurs and the child changes as his or her insights increase because of his or her participation in a life-enhancing unlocking. The elemental has to be understood as opened (unlocked) content that in turn leads to the learning person opening up in a double-sided unlocking that augurs well for learning and education (*Bildung*) to take place. So, whatever view one holds concerning the elemental it should always be understood from a functional-didactic perspective. The elemental is a reflection of the whole that it represents; its function is to unlock what is intellectually fundamental and educationally worthwhile. In this sense the elemental has to be the bearer of reality and life's values. According to Kerschensteiner the elemental has formative axiological value. Finally, the elemental is didactic-pedagogic contents made accessible, thus giving teaching its character of accessibility (Drechsler, Pestalozzi, Herbart) (Drechsler 1967: 25).

The fundamental (*Das Fundamentale*)

A few orienting lines of thought are a necessary preparation for reaching a final conclusion regarding the fundamental:

- The literature contains abundant findings about the fundamental, but they acquire relevance only when they are interpreted didactically.
- Teaching and educative activities are never aimless. The fundamental is the *expected dividend* of teaching-learning activity, a purposive change in a child's life.
- Because teaching and educating are actualized in one and the same act, the aims of teaching and educating have to be realized simultaneously. Some didactic situations are not created purely for teaching and others for educating.
- The effect of 'unlocking' should be thought of as a *differentiated effect* (Van der Stoep 1969: 93). On the one hand, unlocking or opening elemental concepts have to lead to a *conceptual grasp on reality*; on the

other hand, the impact of the unlocking on becoming also is actualized as fundamental dispositions. This calls to mind Pestalozzi's view of 'I see the world' and 'I see myself'.

- A child being taught has to 'experience'. A child cannot experience and remain the same (*'Das Lernen ändert uns'*, Nietzsche). The change in understanding, knowing, imagining, etc. resulting from participating and experiencing in a didactic situation resides under the auspices of the fundamental.

Findings about the fundamental

- Whereas the elemental involves contents *elementarized* by the teacher and aimed at a child's education, the fundamental represents the spirit or ethos of the presented sphere and a changed relationship to life on the part of the educand.
- The fundamental is what a child makes his or her own in a didactic situation to allow him or her to participate meaningfully in reality and to better understand and accept his or her own life-world.
- The fundamental comprises a meaningful mastery of the elemental that immediately and in anticipation directs the child to a structured reality and to recognizable phenomena within that reality (*'Anschauung ohne Ahnung ist leere Hülle'*, Froebel; 'Observation without anticipation is an empty shell').
- Imaginative teaching that is built on the elemental principle endows a child with insight-filled *fruitful moments*. Certain dispositions and fundamental attitudes are categories of reflection, or *fundamentalialia*, that enable the child to become successfully involved in future encounters with essentially similar contents (Klafki).
- The understanding of contents that a child acquires via the elemental equips him or her to be meaningfully involved with things (i.e. contents) as well as the people that enter his or her life-world horizons. On the other hand a fruitful learning experience also reveals methods and ways of becoming meaningfully involved with things and people. The methods are part of the *fundamentalialia* of his or her becoming.
- The fundamental has a prominent aspect of transfer (i.e. application, making functional) and also has an analogical character.
- The concept 'existence' refers to a genuinely human way of being in the world (*Dasein*). The theory of human existence (in contrast to existentialism) views a person as the only being who exists¹⁴ (*existere*, to step out of yourself). The fundamental gives depth, meaning, and content to a child's existence.
- The fundamental is genesis in function and/or becoming in action.
- The fundamental is intellectual/spiritual *penetration* of life and life-contents (values) through the elemental (Schleiermacher).
- The fundamental is acquired contents and understandings that allow the learner to deal meaningfully with reality (Herbart).
- The fundamental, basic experience that a child has in a situation, such as participation in play, becomes a key instrument to unlock the outer

world as well as an interior awakening (awakening of interiority) (Froebel). The fundamental is characterized as a 'hunch', as anticipating and searching for something in advance (Froebel). In this regard, Kant (1956: 83) says, '*Human reason is architectonic*. It regards all *cognitions* as parts of a possible system.' It is through anticipation that a child can identify a possible system (Froebel).

- Stenzel (1960) says that it is on the level of categorical forming that the formative function of the exemplar as an initiating elemental is fulfilled; in this process a child not only grasps reality, but also acquires self-understanding and self-knowledge.
- The fundamental is the primordial experience of becoming (Flitner).
- Educating can succeed only if it is founded in the fundamental (Flitner).
- Spranger (1954) talks of the fundamental as the formative meaning of primordial lived-experiencing.
- Again, for Weniger (1962), the fundamental is the essential relativity within which life is lived.
- The fundamental is an adjustment in thinking and attitudes by a person regarding insights gained through the elemental.
- Nohl (1949) says that whoever adjusts his or her thinking and intellectual attitudes shows by this that for him or her primordial experience is not acquired only once but that this spirit or ethos has been actualized as a fundamental category of his or her existence.

Didactic interpretation of the fundamental

The manifold indications of possible fundamentals and conclusions about such fundamentalia are of only encyclopaedic importance until they are interpreted and clarified within a didactic framework. The extent of the fundamentals and their varied didactic implementations serve as guidelines to teachers and didacticians as possible aims that can be striven for. No hard and fast rules are laid down, but the well-meaning teacher will find fundamentals that should hold good for the teaching-learning endeavour he or she has in mind.

As in the case of the elemental, the fundamental has to do with contents. However, where the elemental offers the possibility of entering into, accessing, and mastering contents, the fundamental has to do with mastered contents, with what a child can do with these contents, and how his or her perception of things is changed. Thus, when there is mention of the fundamental, the emphasis is on learning contents that are brought into function, in this process actualizing education.

When interpreting the fundamental in the didactic context it is important to note that after an unlocking a child finds himself or herself with knowledge, insights, and dispositions that were virtually non-existent before the unlocking. These insights, understandings, and fundamental attitudes accrue to him or her through conscious and deliberate entry into and mastery of the educational contents unlocked and taught to him or her as elementals.

Lahrman (Lahrman 1972: 100 and Klafki) talk of *extending the elemental into the question-laden, meaning-imbued reality*. The intensified contents are not merely extended but figure in the intellectual, emotional, and normative equipment that becomes part of the life-orientation with which the child sets out on his or her additional journeys of life. Future meaningful involvement with reality is guaranteed inasmuch as the functionality constitutes an extension of the fruit-bearing elemental. A child's participation in future situations, thus, implies entering them with the already acquired contents and insights at his or her disposal. As Nohl (1949) says, if a child has acquired a thinking disposition and an intellectual/spiritual attitude, he or she shows that this spirit or ethos did not arise only once in the original experience (where the contents were mastered), but that both the knowledge and the ethos have subsequently become actualized as *fundamental* categories of his or her intellectual/spiritual existence.

The mastered contents increase and gradually form the potential that allows a child to acquire more independent insights, and eventually coin his or her own personality as an educated person (*gebildete Person*). Mastering elemental contents creates the possibility of changing the ways in which relationships are established, deepening the learners' understanding and involvement with things and others and, consequently, mastering the vicissitudes of the life-world and its encompassing reality. The possibilities that are fundamental equipment—that are the dividends of the didactic unlocking—offer a child the opportunity to acquire real personal forming only when they are brought into function. Thus, Weniger (1962) asserts that personality cannot be the result of unlocking elementals; it is the result of a life lived with involvement and difficulty. A child becomes a personality (a human being with a distinct style) to the extent that he or she puts the *fundamentalia* to use.

This insight holds in the framework of the school as in life. Insights into a scientific hypothesis are mastered contents, but there will be pupils (children) who put these insights into action by applying and practising them in the context of other related problems—and there will be those who will neglect such fundamentals and forfeit their fruits. For the first group the initially acquired contents are not only contents that are of help in immediate situations, but they remain insights and formative contents according to which they style their lives. To some the fundamentals will figure even in their later practices, their chosen careers, occupations or professions, and even in the way they live meaningful lives (Weniger).

'Functionalizing' the acquired contents potentially leads to a life that is lived meaningfully—but that still demands, as an imperative, mastering and interpreting life-contents again and again to the very end. Thus, the circle is completed, and one travels the path from life-contents to life-contents, from reduced life-contents to extended life-contents via meaningful participation in didactic situations.

The above discussion advances the imperative of the act of teaching. In phenomenology teaching and learning are referred to as being *ontic*. As I have indicated, this word is derived from Greek *onthos* which is the same as the verb *to be*. Teaching and learning are inalienably part and parcel of being human. To a child there is no other way to a meaningful life other than the

urgent, and at times demanding, mastery of life-contents. Hence, didactic pedagogics advances the establishment of didactic situations with a view to the imaginative unlocking of contents as the *only* way along which children's forming, educating, and becoming can be actualized. Central to didactic practice is the compulsory action of making accessible elemental contents to learners that, in turn, offer the possibility of mastery and meaning-provoking functionalization. The concepts elemental and fundamental are central to both didactic practice and didactic-pedagogic theory building.

Notes

1. See 'Feesbundel aangeboden aan Doktor Barend Frederik Nel' (1955). It needs to be mentioned that Karl and Charlotte Bühler of Los Angeles, Robert J. Havighurst of The University of Chicago, George Humphrey of Oxford University, M. J. Langeveld of the Rijksuniversiteit at Utrecht, Eduard Spranger of the University at Tübingen, and Albert Wellek of the Johannes Gutenberg University at Mainz were some of the international academics who contributed towards this Festschrift honouring B. F. Nel.
2. See especially the discussion below of Schleiermacher's view on this matter.
3. In this regard, see the argument by the Van der Stoep and Van der Stoep (1968: 124) as well as the conclusion of Nel (1968: 22).
4. 'Forming' is achieving adulthood while 'educating' leads to it (Van der Stoep 1969: 21 [g]).
5. Some use only one or the other term and there are authors who use the one while meaning the other.
6. I will consider Scheler's (1954a, b) conclusion about formative knowledge, which Klafki (1954: 102) brings into relation with Froebel's views, in that it makes a definite contribution to our problem. What does Scheler's conclusion include? A few pregnant exemplars of a matter are unlocked for a child (but he doesn't say this) that equip or allow him or her to master formative knowledge, that is, an insight into what is essential. Good and pregnant exemplars (thus, good elementals) are chosen, and this formative knowledge (knowledge and insight) is assimilated. This is an ordered insight that is the basis for an *interpretation* (a first fundamental). This becomes a category for all coincidental facts that are essentially alike and with which a child is going to deal in his or her future experiences (a second and functionalized fundamental). Thus, it seems that a child as consciousness also is aware that he or she has learned.
7. The use of the concepts 'genesis' for becoming and 'genetic learning' for learning—the effects of unlocking with an impact on becoming—appear generally and freely in the German literature. It is in this context that Wagenschein's (1966: 1) argument for genetic learning also has to be understood.
8. Frick borrows this concept from Otto Willmann (1923, 1930).
9. 'Child-in-distress' is my term and stems from modern existential phenomenology where a child is always seen as a child-in-need, especially educational need.
10. The old theory of a child's understanding faculty as an apperceptive mass is scorned by modern didacticians.
11. This is so far removed from the didactic practices based on method alone!
12. I believe that this intuitive viewpoint pinpoints the attitude of a great teacher.
13. This is the type of metaphor that does not say much in a didactic scientific (i.e. the science of teaching and learning) context, yet it reflects a true existential touch.
14. Exist in the existential phenomenological sense of 'ex-sist', to step outside of oneself, to be-in-the-world. (G. Y.)

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