

## CHAPTER 2 DIDACTIC PEDAGOGICS

### 1. THE INTERDEPENDENCE OF EDUCATING AND TEACHING

Educating is an everyday human experience common to all people. It is an aspect of reality as are all phenomena, be they natural or essentially human like making laws and living according to them, conducting business, waging war or engaging in agriculture. In light of the introductory observations of the previous chapter educating is an aspect of the way human beings become involved with reality. Educating is a clearly recognizable aspect of reality in its totality (life world of human beings) and to deny its existence would be to do violence to reality itself. But educating is not a “thing”, i.e., it is not a substance. It is an event, an experience, and an encounter and it testifies to a relationship between generations where the older generation is involved with the younger one in terms of life contents that the older generation considers valuable, valid and formative. This statement especially holds true for parents. They are continually involved with their children to try to insure that they eventually become independent and responsible adults. But what holds for parents also is valid for teachers. As in the case of educating, in general, it also is a recognized fact that wherever schools exist, teachers are involved in sharing (with parents) the task of forming tomorrow’s generation. For this reason it is of particular significance that a teacher have a thorough knowledge of and a keen insight into educating. This is the primary reason why educating and the relationship between educating and teaching are dealt with before giving further attention to a theory of teaching, as such.

In the previous chapter it was stated that the relationship between person and reality, the constituting of one’s own life world and a person’s mobility in the larger reality involve mastering contents. This is of particular importance for educating. Life contents include those aspects of life in terms of which adults live as adults: their religious views and allegiances; their moral, social, economic and political opinions; their language and culture; their lifestyle; their economic activities, etc. all are life contents that greatly determine

the nature of their involvement in reality. As far as these life contents are involved in educating, it is the adult's conviction that the child must master them. The upcoming generation must learn to know these contents, value and accept them, and the expectation is that they will implement them in everyday life situations if they ultimately will be adults themselves. Therefore, in this sense, educating is not merely adults intervening in the lives of their children but it is a conscious intervention with the aim that their children will make these contents their own possession.

This has brought us to a basic, primary and fundamental insight into the relationship between educating and teaching. The most important fact illuminated so far is that educating cannot occur without contents. All adults who educate children are involved in presenting contents to them. These contents include a great variety of things such as norms, values and skills aimed at helping the child create a healthy person-world relationship. But when a person presents contents this clearly implies that teaching immediately appears. When a person exposes, broaches or presents contents by discussing or demonstrating them, he actually is involved in teaching. The essence of this really is very straightforward. *Educating always is actualized by teaching while the meaning of teaching is in educating.* It is not possible to educate without teaching. Similarly, it is meaningless to teach children if their eventual adulthood is not advanced by it.

That adults educate children by teaching them is one of the most original, elementary and important facts of human existence. Educating is a particular form by which a person's life manifests itself and that is fulfilled to the extent that the child is presented with particular contents regarding the fact that he is a human being. Thus, educating is a life practice and this practice realizes itself wherever there are people. In this sense, it is a fundamental fact of human existence.

In this light educating is dealt with here. The question is what really is educating? When insights of this nature are made available by means of the written word, the question about what educating really is already implies a certain theory. The description of the activity that we experience as educating already is theoretically colored

because it exceeds the practice itself in the sense that it is that activity or practice that is described; in other words, the theory of what educating is, is already anticipated in these descriptions.

The question of what educating is, therefore, is answered by a specific scientific description that generally is known as a theory of educating or pedagogics. Thus, the task of pedagogics, as a science, is to systematically and accountably investigate, analyze and describe the educative event in order to try to provide greater insight into its structure for those (teachers) who formally and purposefully intervene in educative ways with children.

Consequently, pedagogics is a radical consideration and systematic description of educating as a practice that occurs among people. It seeks answers to such questions as how something like educating is possible; why an activity such as educating is meaningful; what aspects of the activity that we know as educating are essential to its appearance, etc.

This knowledge about educating is necessary because its formal practice (teaching in schools) cannot do without it. The practice of educating is not limited to the relationship or involvement of parents with their own children but generally is the concern of adults with children who are in the same situations. In addition to the parents, teachers are primarily involved in educating because on one or another occasion and in various ways, in their educative practice, they purposefully intervene in the life of a child with the direct aim of influencing the child's involvement with reality so his relationship with it will change.

When a teacher intervenes in the life of a child educatively, he must be able to give an account of the nature, scope and meaning of his actions. He also has the responsibility of judging his own actions—whether he has intervened correctly or fruitfully; if there is a correspondence between the practice that he now carries out as an adult and the theory or insights at his disposal about educating. Thus, for example, the entire practice of teaching is attuned to the children learning. Hence, it is logical that a teacher not only must have a thorough knowledge of what learning really is but he also must be able to plan a situation in which learning, as a child's way of existing, can be effectively actualized. The adult must be able to

theoretically account for or justify his practical activities in order to avert faulty reasoning, prevent faulty educating, and especially enter the school situation in such a way that every aspect of his actions, as far as possible, will contribute to educating the pupils. In a study of a theory of teaching, pedagogics has a particular place and it serves the teaching aims in more than one respect.

These theoretical insights compel the adult to thoroughly reflect on the *aim*, the *means* and the *persons* involved in the event of educating. The adult is supposed to know where he wants to lead the child. If he purports to help the child become more adult (as, indeed, is the case), he also must know what adulthood is. If, for example, the educator primarily views adulthood in terms of vocational independence, then this becomes his most important educative aim and he will have to emphasize his educating such that his intervention with the child will result in him eventually being able to practice his vocation independently. On closer view, this aim appears to be narrow because vocational independence is only one aspect of adulthood, in a broader sense.

All educative aims are summarized under one final aim, namely the eventual adulthood of the child. This implies the self-determination, responsibility and the moral independence of the child. It is obvious that this general or eventual aim (adulthood) has various aspects. For example, one can talk of preliminary aims such as the cleanliness of the child; of incidental aims such as good and regular eating habits; of intermediate aims that really are aimed at something else such as learning as a prerequisite to accepting the articles of faith of a church. On the other hand, one could also hold the view that educating can be divided directly into facets such as the intellectual, cultural, moral, esthetic, social, etc. each of which has its own partial aims that collectively express the concept "education". The fact of the matter is that the adult does not account for his educative aims casually but that he carefully considers what he has in mind for the child's eventual adulthood. Without teaching these aims cannot be realized. Therefore, teaching aims are always educative aims and the practice of educating also always is the practice of teaching.

## 2. EDUCATING THROUGH TEACHING

The essential matter that has emerged from the previous paragraphs is that educating and teaching show an indivisible unity in their origin as well as their course. This means that teaching first appears (in human existence) in the educative situation and nobody really can understand teaching if he doesn't also have a fundamental knowledge of educating. It also was indicated that the ultimate aim of teaching and educating children is their adulthood. The idea of adulthood indicates that, as possibility/potentiality, a child is directed to his future. Although the future is open for him, it is not an obvious matter. Consequently, in his intervening with a child the adult directs an appeal to him to explore and master this future, and he makes certain demands or imperatives of him to which he must give particular and meaningful responses. With these responses the child gives evidence that the adult's intervention with him has not been in vain. The fundamental aim of this form of activity is directed to allowing the child to change because he *can* change.

The support provided by the adult in this respect is educative and it is observable in an educative situation. This support assumes that the adult accepts the child, that he cherishes and protects him and that he creates security for him in the home. The mastery of reality that the child must show, however, also must coincide with the idea of propriety held by the adult. Therefore, the child may not act improperly, in an unseemly way or objectionably because this would be contrary to the idea of adulthood held by the adult.

The view that the child is potentiality, however, assumes that he possesses certain powers or gifts that he can use to acquire his own position in the world. To be able to succeed at this he must learn to know the reality surrounding him. This knowledge not only includes the religious and moral values that continually come up in the home but also the systems of his culture. As a consequence of the cultural systems, the world or reality is *what* and *how* it is. By mastering these cultural systems (language, economic and literary activities, political practice, etc.) the child learns to live like an adult. If these systems are not fully and adequately mastered by the child, it means life outside of the home remains closed and foreign, even dangerous, to him and he will not really be able to maintain

himself adequately in the adult world. In such a case, the danger is that he never really will become an adult. Both the idea and the mandate "to learn" are inherently unique to educating.

However, it is important to note that the systems of a culture are built up by persons over thousands of years and that the child's own way (form) of living is radically influenced by them. A large part of these systems is or were initially aimed at mastering nature. In this way, through the ages, humans have created a life world that in practically every respect implies transcending the boundaries of nature. The life world about which the adult directs the child in educating him really is a life world that humans have brought about over centuries. These intricate structures are not known or knowable to a child at birth and, therefore, he cannot yet understand and use them. Hence, one of the most important tasks for educators is to make available and known to the child this world that has been ordered, systematized and built up by persons, and to teach him about it. If the adult can meet this demand it also should be possible that the child's potentialities are actualized so he is able to master these life contents of the adult. By learning to know these systems or contents, the possibility is created that the child can learn to control them, i.e., after a number of years he can act as an adult, in general, with respect to a given reality.

This teaching, instructing or introducing of cultural systems, or life contents, has its beginning in the home. In addition to the values and related norms, in the family a child also learns to know various other aspects of the contents necessary for adult life. The parent can present this knowledge to the child systematically or incidentally. Thus, the child masters the language and his parents lead him with increasing intensity from his own baby talk to a general standard of language. Also, from his initial insights he learns to discriminate quantitatively and to form concepts by which he masters reality. He listens to the radio and encounters music; he handles various tools and artifacts and observes his parents reading books, magazines and newspapers, etc.

By about the child's sixth year, he shows a particular attunement to exploring, mastering and making the world outside of his home his own. The structures of these contents that he increasingly explores

are very complex and he cannot gain an adequate grasp of them by himself. Also his parents do not necessarily have a systematic and formal knowledge of them. His parents may not be able to clarify and explain things like natural phenomena, political events and the increase in the cost of living. These contents are also wide in scope and complex and the parent is aware that his child's grasp and understanding of them depends on systematic and sustained teaching. In order to correctly and systematically present and make these contents available, in accordance with the child's unique nature, the adults create institutions in life where he can undertake this task in formal and organized ways.

Going to school is an important part of educating a child because it gives him the opportunity to formally and systematically learn to know the reality that he does not yet know and to create a future for himself. The most important aspect of this form of intervention with the child by the adult certainly is the didactic or teaching activity that already had its origin in the adult's actions in the home and now is carried on in the school in formal and systematic ways. Thus, the adult creates a school-didactic situation within which an adult (teacher) and child (pupil) come together to converse about particular life contents (learning material) with the aim that the child will learn to know them. His mastery of the contents must lead him to acquiring a greater mastery of the world outside of the school. Therefore, the adult calls these contents learning material or learning contents. As does the parent, the adult who teaches provides assistance to the child who needs this assistance such that the idea of educating also will be realized in the teaching. The aid and support the teacher gives the child in this series of situations is not casual or incidental. What the teacher puts at the disposal of the child in the form of learning contents, learning and teaching aids, guiding the learning activity, controlling and evaluating his work, etc. essentially is premeditated, systematic, planned and differentiated.

The adult who wants to involve himself in teaching must realize that in every respect the school is an extension of the activities initiated in the home. However, these activities must be brought to full fruition in a series of situations during which the child has the

opportunity to acquire more knowledge and experience so that he can eventually become an adult himself.

For these reasons the educative and teaching situations cannot be divorced from each other; one is the obverse of the other. Without teaching, educating cannot occur. Without taking the educative ideal (aim) into consideration, teaching children is relatively meaningless and even unthinkable. The place and meaning of schooling in this wider context is dealt with fully in a later chapter.

### 3. WHAT IS DIDACTICS?

With reference to what was noted previously, at this stage, one can indicate that teaching is an activity present in a person's life world that is worthy of close analysis and examination in itself. After all, teaching, like educating, belongs to the most fundamental of human experiences. A theory of teaching or a reflection on the activity of teaching is called "didactics". Therefore, "didactics" is the scientific study of the activity of teaching, i.e., a theory of it. In the broadest sense, didactics, as a science, is a theory about what "teaching" implies: it examines the conditions basic to effective teaching; the general principles that must be taken into account; the possible forms it can take; the relationships between teaching and learning; the meaning of learning contents; the ways these contents can be organized; what the concept "school" actually comprises and how it is viewed in general educational terms; and, if the teaching activity fails, what factors the teacher should take into account in order to be able to work in an orthodidactic (corrective) way in his classroom.

The greatest danger in interpreting the concept "didactic" certainly is that in the literature it continually is confused with the concept "method". This confusion is the result of the common practice of equating a theory of teaching with a theory of teaching methods. Even everyday experience shows very clearly that the entire matter of teaching includes much more than teaching methods; hence, this view leads to serious mistakes in and errors of judgment.

The word "didactic" is derived from the Greek word "didaskain" that means to teach, to offer or convey contents or something for

someone to learn. Various inferences are drawn from this root word in order to describe and explain a human being's involvement in teaching. Words such as "didasklos" (teacher), "didaskalia" (the teaching profession), "didache" (the contents that must be taught) and "didastikos" (a person who is involved in teaching in one way or another) all are concepts derived from the root word meaning to shed light on the activity generally known as "teaching". Therefore, it is important to realize that currently the usage of "didactic" is as a comprehensive word that includes all of the concepts mentioned as well as many others. Briefly, in its original meaning, "didactics" had to do with describing the activity of teaching and of being taught. Consequently, it is worth noting that the science generally known today as didactics arose from the study of the theoretical and practical aspects of teaching. In other words, a person is continually placed in and deals with situations in which teaching is necessary. Thus, in this respect, didactics also means the science and the practice of teaching.

Viewed historically, "didactic" was used in the Middle Ages to describe a particular intention or aim of a written piece. In particular, the word was used to describe the influence of the contents of such writings on forming (changing) the persons who studied them. Post-Middle Ages literature is full of didactics, i.e., written pieces by which there is an attempt to bring particular facts and opinions to the attention of the reader. In the early Netherlands literature Jacob Catz is a good example of a writer who devoted himself to contents for teaching. Also, in the Afrikaans literature, Totius is well known for the didactic flavor of his works. As a poet, he is intent on convincing the reader that certain views and concepts are valuable; his poems are basically didactic because they are aimed at teaching the reader.

It is important to indicate that the activity from which didactics developed is not foreign to life or merely abstract. The central concern of didactic pedagogics, i.e., teaching children and everything associated with it, in all respects is an integral part of the human life world. To be human means to experience teaching at one time or another and to be taught in a variety of forms. Earlier this matter was dealt with briefly. Therefore, the phenomenon generally known as teaching is given with being human and does

not arise merely because one establishes a school in which this teaching occurs in systematic ways.

For this reason, the danger of the tendency to equate didactics with method was briefly warned against. Didactics covers a much broader area than is the case with methods. Didactics deals with teaching in its *entirety*, i.e., in its broadest sense and in all of its facets. Methods or methodology are concerned only with particular methods to be able to realize general or particular teaching aims. Methods are not concerned with the validity of teaching aims because this is a question of a general didactic nature. Didactic aims must be clearly considered and formulated before a particular or general method is chosen to realize them. If the concept “didactics” is limited to “method” this means that, indeed, valid statements might be made about the course of teaching but not necessarily about the nature and sense of teaching, especially pedagogically. Didactics includes methods, as such, because it also describes and explains teaching methods as well as everything related to them.

The didactician who wants to investigate and understand what really is the nature and essence of teaching must realize that the origin of his thinking, research, descriptions and explanations is the original didactic situation in the reality of educating, itself. This matter deserves further attention.

From birth a child is continually drawn into particular teaching situations by his parents. These situations in the home vary greatly regarding their aims, eventual results, etc. The important consequence of this for didactics is that a child is not drawn into a teaching situation for the first time when he enters school. Also, the appeal to learn is not foreign to him. In fact, the learning activities the child has carried out since birth really make formal teaching possible because he possesses a wide variety of knowledge, insights and skills when he enters school for the first time. The learning situations the child has experienced from birth are part of a parents' involvement with him from the beginning. This involvement is primarily a pedagogic (educative) matter. Analogous to the didactic situation generally found in the home, the adults then formally and systematically design comparable circumstances within which the

child now not only learns to master elementary insights, skills and techniques but within which he also learns cultural systems (life contents) of his life world. Schools were introduced to help the child reach this level of competence.

When there is now radical and systematic scientific thinking about didactic problems, one cannot but begin with this original didactic (teaching) pedagogic (educative) situation. The primary source of knowledge at the immediate disposal of didactic pedagogics is the reality of educating as this is given in the human life world. If we also keep in mind that the primary source of knowledge regarding contents is the adult's life- and world-view, then it is clear that the form and contents of teaching in the original educative reality appear as a harmonious unity.

If one examines this point more closely it is evident that the forms of human existence (ways of relating to the world) are determined by his potentialities and abilities, on the one hand, and, on the other hand, by the nature of the reality with which he creates a relationship. A person looks at, touches, smells and tastes a concrete object; he listens to sounds and he thinks about relationships between various processes and things. The forms of his activities (looking, touching, smelling, tasting, listening, thinking, etc.) are in accordance with and reflect the nature of particular aspects of reality (concrete object, sound, relationship). It is in this sense that there is an original harmony between form and content. When a parent, therefore, explains a concrete object, he lets the child look at it, touch it, smell it, and, if it is not dangerous, even taste it. The parent would never tell a child to "listen to" an object, or to "smell" a sound! Therefore, it is in this sense that the form and content of teaching in the original educative reality (home) appear as a harmonious unity.

It is against this background that a didactic theory examines the problems mentioned in the following section. Because these problems really constitute the warp and woof of the following chapters, they are only indicated synoptically here as preparation for the particular explanations that follow.

### **3.1 The grounding (accounting) of a didactic theory**

The important matter that arises in this first aspect of didactic theory is a didactician's search for the fundamental ground or origin of the human activity he wants to describe. This fundamental ground or origin of the didactic activity is of extraordinary importance for establishing a theory of teaching because the theory must clearly indicate where the activity of teaching appeared for the first time in the life world of human beings. If one wants to assess this matter in terms of the brief explanations in Chapter 1 and in the previous paragraphs of this chapter, this implies that the didactician investigates reality as it is in order to acquire an answer to this first question. It was stated that reality, specifically the educative reality, is the only acceptable point of departure for writing a theory of teaching.

It is not the aim of this book to deal in particular with the greater intricacies of the ontological, epistemological, anthropological and general pedagogical problems that this point of departure raises. The most important aspects of these cases were mentioned in the previous section. However, the reader must note that this is a matter of fundamental significance for establishing a didactic theory. It radically influences the nature and validity of such a theory.

If a didactician, e.g., takes the school situation as his point of departure, this means that he basically reduces teaching to what occurs in the school without attempting to take the totality of human experience into consideration to determine whether the activity "to teach" takes place before it appears in the school. The argument against the school as a point of departure for a theory of teaching is that it is not and does not represent the origin of teaching. Teaching in the school only is possible and meaningful because teaching is primarily a matter of educating. Apart from this, the school is a secondary (i.e., derived) practice that is not at all *necessary* in the life world of human beings. The school, as we know it, can be removed or thought away from the life world without fundamentally altering it [it is not essential to that life world]. Also, today there are societies in developing areas where there are no schools at all and where, in spite of this, people still become adults. In addition, they acquire a certain command and

appreciation of reality merely on the basis of the teaching that appears in educative situations and without experiencing formal teaching in the modern sense of the word. If a didactic theory searches for its origin in the school situation, this simply means that if one removes the school from society—which is quite possible—teaching (as a form of being human) also is removed. The validity of such a theory of teaching obviously is very questionable.

The objections to a theory of teaching that takes the school as its point of departure are equally valid for other possible points of departure that appear extensively in the didactic literature. For example, one thinks of approaches and explanations based on specific theories of learning such as Behaviorism [as well as, e.g., Constructivism and Cognitive Science] that have had many adherents, especially in the American literature. A learning theory (psychology of learning) cannot disclose the real essences of teaching because learning and teaching are not identical activities; they are complementary. Apart from this, it is an open question whether a psychology of learning can make valid pronouncements about the relationship between person and world. On the other hand, German didacticists generally are inclined to take teaching contents as their point of departure for writing a theory of teaching. It is immediately apparent that a theory of this kind cannot claim scientific validity either; pronouncements about contents in no way can describe the activity of “teaching”. If a didacticist is certain about *what* he is going to teach, in no sense does this imply that he knows what teaching is or how it should be done. Fundamental insights into and skills regarding the activity of teaching enable the teacher to teach *any* contents in terms of such insights.

The question of grounding or accounting for a didactic theory is mentioned only to illustrate its importance and to orient the reader so that he can fundamentally assess the various didactic findings and pronouncements he will encounter in studying the didactic literature and even evaluate all didactic descriptions in terms of his own experience of teaching.

### 3.2 What is teaching?

This second question that didactic theory must answer is a search for the fundamental nature or essences of the activity of teaching. This search for essences is of fundamental significance to the didactician. The findings he arrives at in this respect enable him to account for what teaching really is.

A didactic theory that does not clearly and frankly express itself about the essences of teaching fails to explain the relationship between teaching and educating with the result that the descriptions and pronouncements (especially as far as the practice of teaching is concerned) remain vague. Conversely, a lack of insight into the activity of teaching makes it impossible to design a valid school practice because the teacher then is not able to account for the facets he has to make provision for in his preparation. For this reason, an examination of what teaching really implies is of vital importance when all facets involved in the practice of teaching are studied. Basically this has to do with the didactician avoiding at all costs taking a distorted, incorrect or perplexed image of teaching as a basis for the decisions he makes regarding all of the other facets connected with his practice.

Another matter directly related to the question of the essences of teaching is the problem of criteria for evaluating the effectiveness of the teaching practice. These yardsticks or didactic criteria allow the teacher to evaluate whether the practice he has designed has been effective or not. It is generally known that there is an indissoluble relationship between teaching and learning activities. The nature and quality of the learning activity largely depends on the nature and quality of the teaching. In order to determine the effectiveness of his teaching, the teacher must have valid didactic criteria to provide a sound and healthy basis for self-criticism and self-assessment. Without healthy and valid self-criticism and self-assessment there can be no real qualitative development (improvement) in a teacher's teaching practice.

Since these matters are dealt with extensively in later chapters, for now we leave this entire matter with these few orienting and explanatory remarks.

#### 4. DIDACTICS AND THE THEORY OF FORMING (BILDUNGSLEHRE)

In light of the relationship between educating and teaching indicated above, at this stage notice is taken of the didactic significance of the theory of forming (Bildungslehre), especially as this has been explicated for many years in the German literature. The problem here is that the two concepts “teaching” and “forming” (“Unterricht” and “Bildung”), in the history of didactic thought, largely have been viewed as identical.

The word “Bildung” unquestionably refers both to an event and a condition. In this connection, if “Bildung” is translated as “forming” the entire matter of forming refers to an event that continually is actualized in a person’s life but, at the same time, it also is a matter of an attained condition or degree of formedness that is observed in persons. The connection between this and teaching theory is that teaching is an attempt to bring about a change in a person’s life while the condition of being formed or formedness refers to the result or outcome of teaching. In this sense, the most important aim of teaching is forming the learning person while its most important result is his formedness. The activity of teaching (Bildung) and its result (Bildung) are summarized in one word generally known as “Bildungslehre”. For this reason important German didacticians do not hesitate to equate didactics with the theory of the formative task and formative content (Klafki). Therefore, it is important, within the context of didactic pedagogics and didactic theory, to take note of the findings of the theory of forming in so far as it represents a theory of teaching.

Speaking generally, one can understand that the aspects that continually arise in a theory of teaching are equally prominent in a theory of forming, namely, teaching, learning and learning contents. To the extent that a greater emphasis is placed on the significance of the learner, on the one hand, or the content, on the other hand, for the eventual condition of formedness, different variations of the theory of forming come to light. These variations are not of so much importance. The importance of a superficial knowledge of them is evident when later there is an explication of categorical forming. Generally, these variations of the theory of forming are

divided into two main divisions, namely, formal forming and material forming. These two views are directly opposed to each other in the sense that the first (formal forming) emphasizes human spiritual powers or so-called abilities while the second (material forming) proceeds from the point of view that the contents, in themselves, have formative value and can effectively hone and change the human spirit.

#### **4.1 Formal forming**

The central theme of formal forming is that the child, as learning person, is at the center of the formative event. This formative event essentially is directly reducible to the matter of teaching and all aspects or facets related to it.

The entire matter is child-directed and all reflections about teaching consider the child's involvement with reality. From this various child- or pedo-centric teaching practices have arisen that are continued in the present. This so-called child-directed forming (formal forming) has as a central aim the schooling of the child's spirit and his free development in accordance with his own potentialities. In light of this view, it is obvious that the entire matter of teaching, i.e., all of its theoretical and practical facets, is subordinated to insights regarding the child.

Child-anthropological and -psychological findings in this aspect of the theory of forming are the ultimate criteria regarding pronouncements about teaching. The contents considered here are especially attuned to calling forth the spiritual powers that are unique to the child. It also is understandable that the opinion generally held in formal forming that anyone who is expert in his subject area and who also has made a thorough study of the child as a person is in a position to teach. Teacher training and study, i.e., a study of the essentials of teaching itself and in what ways it can be brought about are not discussed here.

The theory of formal forming has differentiated itself into two views that must be considered.

##### **4.1.1 The theory of functional forming**

The central idea in the theory of functional forming is that there is correspondence with particular content (learning material) building up particular powers in the learning person that sharpen him as a person, i.e., fundamentally influence his becoming adult in the sense that it exclusively determines the relationship between him and reality. This condition of formedness (spiritual schooling) will determine his pattern of life for the future and will be transferable and useful in all life situations in which he is placed. The view of functional forming assumes that a person is a unity of powers (thinking, willing, fantasizing, experiencing, remembering, etc.) by which he builds up contact with the world. These matters exist as latent or slumbering potentialities in the life of each child and can be formed in terms of carefully selected contents (e.g., classical languages and mathematics) that then provide the direction in which human existence is developed. The formative value of the contents is that they provide the child with the opportunity to exercise these slumbering powers and bring them to a solid, functional form. This exercise promotes a person on his way to spiritual schooling and maturation that eventually allows him to show a particular formedness. In this sense, the contents have functional value and this view is summarized as “functional forming”.

Didactically the task is to select the appropriate contents in terms of which this functional spiritual schooling can occur. In this way didactic theory is reduced to a theory about formative contents, whatever that might mean.

#### **4.1.2 The theory of methodical forming**

The theory of methodical forming essentially is only an extension of the views of functional forming in that the formative value is not merely in the contents but also in the methods of the various subjects selected as formative contents or learning materials. Proponents of this approach to the theory of forming do not select different contents than supporters of functional forming. The teaching emphasis, however, is distributed between the contents and the methods that are considered to be an inherent part of that subject. Mathematics, for example, is taught according to strict

logical deductive methods. Classical languages are taught by a series of mechanical drills or exercises of various grammatical rules.

The aim in emphasizing the methods is that their exercise enables a child to understand and use them so thoroughly and effectively that their contents eventually become a part of him. In this way the contents become a dominant factor in the child's lifestyle.

The didactic task, in this respect, is to establish the relationship between the contents and the methods in teaching in order to attain this formative aim. It is important to indicate that the method mentioned here is not a teaching method but a matter of subject contents. This means that the unique nature of the subject is the sole guiding principle for a method of teaching, e.g., mathematics or Latin, and on this basis the teaching must be made effective.

## **4.2 Material forming**

It is not surprise that opposition grew against these narrow and one-sided views of teaching as they arose in formal forming. Especially, it was Herbart and his followers who opposed this over-emphasis on the formative value and method formative value of certain school subjects. In the theory of material forming there is a search for a spiritually enriching formative practice in terms of clearly planned learning situations. The aim is to expose the child to a wide variety of factual knowledge to give him the opportunity to develop his own point of view concerning the various aspects of reality; this aim especially stresses the child's moral judgment.

The didactic tasks of this view are two-fold: firstly, content must be selected that will enable the child to establish an objective view of reality as a whole. This objective view of reality only is possible if a large quantity of content is made available by which the child can orient himself to everything that surrounds him. Secondly, learning situations must be designed that will be capable of achieving this aim.

In light of what was said above about teaching and a theory of teaching it is obvious that the theories of forming mentioned clearly are not didactically valid. Even contemporary theorists, who accept

the point of view that teaching primarily is concerned with forming (Bildung), are clear that the dualism of formal and material forming are not capable of explaining teaching in its connection to the relationship of human beings to the world. Therefore, a third theory of forming was developed that is of such importance for a didactic theory that it warrants close examination.

## 5. CATEGORICAL FORMING

The most important criticism of the theories of formal and material forming is that they excessively stress the intellectual aspect of persons. One can summarize this criticism as follows: the human being is not only intellectually involved with reality; he is involved in it as a total being. Consequently, every aspect of a human being's existence is involved in the formative event. The idea of forming cannot be fully understood unless the concept of totality is taken as a point of departure.

The theory of categorical forming dissociates itself from the one-sided views briefly dealt with above in order to postulate a totality perspective as a new synthesis of the formative event. The theory of categorical forming is founded in three important matters:

**5.1** The **contents** involved in forming are in direct relationship to the reality that surrounds human beings. This reality has a clear and noticeable order, system or essential aspects by which it is knowable. This implies that reality is made up of particular essences or categories that, in their coherence, constitute the totality of reality. Thus, e.g., there is a historical, religious, social, geographic, mathematical, physical, chemical and a linguistic aspect or category of reality, each of which, in its own way, provides access to the greater whole that was described earlier as the human life world. Therefore, reality has a categorical structure and forming can occur only if the whole (the coherence of the different categories) is the formative content in teaching.

However, access to these categories is not a self-evident matter because the scope of these contents is so great that a straightforward or all-encompassing mastery of them is not possible. Consequently, the pupil can gain access to the different categories

of reality in the teaching situation only if the teacher concentrates on sifting through them in order to determine the *elementals*\* of such an aspect or category. “Elementals” are those basic, primary insights of a particular aspect of reality that give the pupil access to it and that enable him to understand related aspects of reality.

An example of such an elemental insight is the concept of quantity. If a child attains a thorough insight into the concept of quantity in the primary school, it will enable him, as his schooling progresses, to understand the four basic arithmetical and mathematical operations. In the same way, gravity in physics is an elemental insight that enables the child to understand Newton’s laws and everything related to them and to apply them in mastering the physical category of reality. If a child manages to understand and command these elements and weave them into his own lifestyle, they then become *fundamentals*† for him. Thus, “fundamental” means the child has made the elementals an authentic part of his own existence and that his involvement with reality generally is directed by these insights into the formative content. The relationship between the elemental and the fundamental is illustrated by the example that the child’s insight into the Fall of Man, redemption by Christ and sanctification are elementals (essences) of his religious forming. When these three aspects of Christian belief become interwoven in the lifestyle of the child, and thereby become reality for him, then we say that the elemental has become a fundamental and in this way the desired formative effect, at the categorical level, has been realized. This first aspect of the theory of categorical forming only has to do with the **contents** involved in the formative event.

5.2 The second cornerstone on which the theory of categorical forming rests is **teaching**. The accepted view is that the reality the child must learn, in its categorical structure, is extremely involved and complex. Therefore, the child needs someone to unlock or unfold this complex reality for him. The theory of categorical

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\* Elemental: German (*Elementar*) didactic terminology to indicate the essences or categories of the contents of a specific subject.

† Fundamental: German (*Fundamental*) didactic terminology meaning that the child, by means of insight into elementals, has given his own meaning to the reality represented by the content.

forming maintains that teaching is a pre-planned and systematic attempt to unlock reality, in its categories, for a child. One must realize that this is of fundamental importance for a theory of teaching and will be dealt with in a separate chapter. All attempts, designs, and systems that arise in teaching fall within this aspect of categorical forming as an attempt to meaningfully unlock reality for a child in the context of his situation. This is a pre-condition for the child to identify himself with the content and to make it his own. Herein lies the assurance that the child can convert the elementals into fundamentals for himself.

5.3 The third aspect, logically related to the above, is that the child also must **open himself** to reality and, in accordance with his intention, learn to be ready to enter the reality that is unlocked by the teaching. This entry into reality means that, on the basis of the appeal that the teaching and the contents direct to him, he is ready to learn to know, master and use the various categories of reality independently and under the guidance of the teacher (educator).

These last two aspects, namely unlocking reality and entering this reality, are known in the theory of categorical forming as a double unlocking: reality is unlocked (in the teaching situation) and the child opens or unlocks himself to the teaching and the related content of reality (by learning it).

In this interpretation the theory of categorical forming is an attempt to achieve a new synthesis of the divergent and ineffectual views of formal and material forming. It cannot be denied that this is a matter of great importance for establishing a didactic theory. Consequently, the theory of categorical forming is mentioned and referred to continually throughout the descriptions that follow.

What has been stated so far is only as a brief summary and an introduction. If one studies this preliminary description in terms of the question: What is teaching? It is obvious that the theory of categorical forming will be heavily drawn upon when deciding what a theory of didactics should consider in its explanations and descriptions.

## 6. THE BALANCE OR EQUILIBRIUM BETWEEN FORM AND CONTENT: THE LESSON STRUCTURE

In light of the relationship between educating and teaching, and especially since educating is actualized by teaching and that the sense and meaning of teaching are found in educating, it is an educative task to ensure that teaching occurs in a planned, systematic and accountable way. For didactic theory, this implies that its research must be attuned to two facets, namely, to bringing together the form and content of teaching in a balanced unity to be able to establish a meaningful practice for systematic teaching. Although this is not the sole aim of didactic theory, still it is a very important and even central one if the contemporary life world and the central position of the school in it is to be evaluated.

As already indicated, as far as form is concerned, didactic theory has to examine what forms of living there are within the horizons of human experiences and lifestyles that have didactic importance and meaning for teaching. Once again, it is stressed that teaching is an essential and original aspect of a human being's involvement with reality.

This also means that the form of teaching cannot surpass or ignore human experience. The forms that teaching takes must be found within the limits of human existence and be described and interpreted for application in systematic teaching. If this is not done, this simply means that teaching will be foreign to the human life world; however, this would be a contradiction in itself. For this reason, the didactician returns to the reality of educating (life reality) in order to carefully examine the forms in which educating appears in the life world. Then he must describe these forms by which forms of teaching are described that can be implemented in school practice. These basic forms of living used in teaching are refined and combined to establish a meaningful teaching practice in the school. They are known as "didactic ground-forms". In summary, didactic ground-forms are those forms of living that are applicable to and usable in teaching and that are refined and combined so that, on the basis of their forms, the school system can function.

What is valid for form is equally applicable for contents. In this connection the life world (reality) is the primary source of knowledge as it appears in educative reality. In relation to the life world, a life- and world-view function as a second source of knowledge from which the educator selects contents that, in his judgment, give proper meaning to his educative ideals, especially in light of his philosophy or view of life.

As with form, didactic theory must examine contents to determine the elementals capable of providing the child with fundamental insights that enable him to grasp reality firmly. The final result of this examination, quite simply, is a curriculum theory that makes the school curriculum possible.

This examination of the harmonious relationship between form and content, as far as formal teaching is concerned, has its ultimate and final consequence in the lesson structure. The lesson structure represents the conclusion about how the teacher must integrate *form* and *content* in his teaching. In this sense, the lesson structure is the necessary result of didactic research because the didactician eventually must be able to account for how his theoretical insights can be functionalized in a practical teaching situation. These matters are so important for a theory of teaching that separate chapters are devoted to each of them.

## 7. DIDACTICS, SUBJECT DIDACTICS AND ORTHODIDACTICS

The lesson structure and everything related to it is the final aspect with which a formal didactic description is involved. Essentially, it is a compiled and constructed description and explanation of teaching as it ought to be re-established in school practice. It also is important to note that didactic theoretical descriptions, explanations and findings that culminate in a lesson structure are general and universal. Therefore, didactic theory does not address the way the lesson structure should be designed or interpreted in teaching a specific subject such as language, mathematics or geography. Such specific research falls in the area of subject didactics.

Just as didactic theory attempts to arrive at generally valid pronouncements and findings about teaching, subject didactics attempts to interpret and implement the general findings of didactic theory in the context of teaching specific school subjects. Thus, subject didactics really is a particularization of these general pronouncements for teaching a specific school subject such as biology. Didactic theory is the background and context of subject didactics in the sense that it provides the general structures by which teaching occurs. Subject didactics particularizes these general structures and, in this sense, its findings and pronouncements are primarily a matter of *designing* a particular teaching situation with the aim of reaching a particular teaching aim.

This particularization of general didactic findings also explains the relationship between didactics and subject didactics. In general, this particularization especially is concerned with the following three aspects of teaching.

**7.1** When didactics addresses the problem of **contents**, the nature of its findings is general and universal. In this sense, contents are dealt with generally. General didactic theory is not concerned with specific subjects. In contrast, the school curriculum is composed of a large number of school subjects, each having its own *nature*. Mathematics, as a scientific area of study and as a school subject, differs from history. Each uses different methods and it is obvious that mathematical contents place different demands on the teaching situation, the teacher and the pupils than do historical contents. Particularization, in accordance with the nature of the school subject, with the aim of realizing teaching, falls within the terrain of subject didactics. Therefore, subject didactics must indicate how this matter must be realized in school teaching.

**7.2** A theory of teaching discusses the **learning child** in the same general terms as it discusses contents. However, in the school, teaching and learning activities always are concerned with a particular child from a particular background and who is in a particular class. It is a particular child who eventually must master the school subjects effectively. The ways all of these particulars are

made functional in the school situation are described and explained by subject didactics.

**7.3** Each lesson in the school is presented under particular circumstances and under the guidance of a particular **teacher**. The lesson situation in the school, therefore, also is a particular teaching situation that must be planned and realized in terms of the special conditions that prevail for that particular period in the school timetable. This aspect also is a particularization of general didactic findings by subject didactics in accordance with the specific nature of the school subject and the particular child for whom the lesson is designed.

The relationship between didactics and subject didactics is the same as that between didactics and **orthodidactics**. Orthodidactics is that aspect of general didactic theory concerned with researching and designing an accountable practice for the benefit of a child who cannot cope with the usual demands of a subject or subjects in the school. The aim is to provide special teaching for a particular child so he can learn adequately.

This aspect of didactics generally is referred to as remedial teaching, but this term is not acceptable because the findings of remedial teaching are much too limited. The special relationship of orthodidactics to general and subject didactics is that it uses the findings of both. In order to design an orthodidactic program, the findings of both general and subject didactics are examined and interpreted for the specific program and are used to evaluate the effects of the program. Hence, orthodidactics is concerned with the child where ordinary teaching has failed as a result of a variety of reasons. Its primary aim is to design a program to try to correct these derailments. For this reason, it is understandable that orthodidactics is rooted in didactics in order to try to establish and realize particular teaching based on the generally valid findings established by general didactics. In the same way, it is attuned to using the findings of subject didactics to present such important learning contents as language and mathematics with the aim of responsibly bringing the child who has lost his way in subject teaching back on the right path. In a separate chapter these relationship are more fully discussed.

In the following chapters each of the aspects that have been mentioned only synoptically, and even incidentally, are dealt with in greater detail. The aim is to systematically guide the reader through all of the particular aspects of didactic theory in order eventually to pull together the relationships among the various aspects of teaching by making some pronouncements about the lesson structure. More specifically, the ultimate aim is to give an account of what teaching essentially is and of what basic particulars must be implemented in the classroom each day. It is repeatedly stated that although there are many systems and views of teaching, there is only one teaching. Before any pronouncements can be made about a teaching system or principle one must determine what teaching essentially is.