CHAPTER 2
THE AUTISTIC CHILD'S ACTUALIZATION OF LEARNING

2.1 INTRODUCTION

In the first chapter, it is shown that LEARNING and BECOMING are two equally original structures which are ways in which the psychic life of a child-in-educating is manifested. The adequacy of this actualization is closely related to the degree to which a child succeeds, thanks to an adult's educative accompaniment, in proceeding to self-actualize his/her learning and becoming. In the present chapter, the actualization of learning by autistic children is considered more closely to determine if an adequate realization of learning occurs and, at the same time, if it is under actualized, to indicate where that under actualization lies. The actualization of the following modes of learning by a child, under the educative accompaniment of an adult, is considered:

1 Sensing
2 Attending
3 Observing
4 Perceiving
5 Imagining
6 Fantasizing
7 Thinking
8 Remembering
9 Actualizing intelligence

2.2 THE MEANINGFUL CONNECTION BETWEEN LEARNING AND BECOMING

Once again, it is necessary to indicate that these two ways in which the psychic life of the child-in-educating is manifested, in their original structure, are not separable but, at most, are distinguishable for the purpose of pedagogical illumination.

Essentially, learning is a phenomenon of becoming, in that it is a precondition for it. Thus, it is correct to say that, as a child LEARNS, in terms of learning contents, he/she BECOMES and, as he/she BECOMES, he/she LEARNS.

2.3 WHAT IS LEARNING?

Learning is a genuinely human phenomenon which is not reducible to any other (1 p 66). Thus, learning is not equivalent to training, such as an animal, and it does not occur mechanically, because a child decides him/herself if he/she will learn or not. Also, learning does not qualify as a natural science, biological "process", or follow fixed laws, rules, or defined prescriptions (2 p 17).

The phenomenon of child learning is present from the beginning, i.e., from an early age, a child is in the world learning, and is under the imperative to realize his/her given *learning potentialities*. According to Ferreira (3 p 114), learning is essentially an existential phenomenon, a question-answer playing with the world, by which form is given to his/her intentionality, as a standing open for and directed to fellow persons, and things which surround him/her (what must be learned as content). Very early in his/her life, a child discovers his/her ignorance and, on the basis of his/her directedness to fellow persons, as well as a meaning-seeking, meaning-disclosing, meaning-giving directedness to reality, he/she actualizes his/her learning potentialities by means of sensing, attending, observing, perceiving, imagining and fantasizing, as well as thinking and remembering, which are all borne by a child's intelligence, and possessed language (4 pp 63-76).

The learning phenomenon has its child-anthropological foundation in the so-called principle of emancipation (Langeveld), i.e., a child is someone who wants to be and will become someone him/herself (5 pp 48-49). By this, a child proclaims him/herself as someone him/herself who is eager to grow up, someone who himself takes the initiative in actualizing his/her learning and becoming. As such, the phenomenon of learning by a child can also be seen as an integral principle of becoming, since, because of his/her willingness-to-him/herself-learn, he/she is someone who wants to become.

However, the initiative to learn implies effort, because learning requires the active participation of a child, and not the passive undergoing of "stimuli" from his/her environment.

Also, learning, in no sense, is a purely cognitive matter and, therefore, a learning child must be approached as a totality-in-function, who acts out of his/her specific lifeworld. Indeed, learning is taking a personal position by a child, and this implies that it has affective, willing, striving, cognitive, didactic-pedagogical and normative moments which all codefine its effectiveness; in addition, learning is realized in terms of specific *learning contents*. A readiness to learn is rooted in a stable affective life, the result of a stable, trusting educative relationship between a child and adult(s). Although this initiative to learn is an essence of child being [and of being human], its full-fledged figuring forth is a matter of educating (a matter of educative teaching and schooling). An adult involves a child in his/her educative teaching spontaneously (home), or more purposefully and formally (school) because, in a child's potentiality to learn, he/she anticipates the actualization of his/her becoming adult; thus, educating, learning and becoming are basic givens in the life of a child, and are the foundation for his/her becoming adult
(7 p 101).

A child learns because of his/her participation in a situation (Langeveld), and he/she actively directs him/herself in his/her openness to the data (contents) which speak to him/her when he/she gives sense and meaning to them, i.e., when an exploring, acquiring, and mastering of reality (content) occur (8 p 101). A child also shows him/herself in a learning situation as someone who accepts co responsibility for his/her learning and becoming, because he/she opens him/herself to reality. Without this self-unlocking, and an adult, in his/her turn, unlocking reality for a child (an event of double unlocking, according to Klafki), the adequate realization of learning and becoming cannot occur (9 p 102). If a child succeeds in making the unlocked *contents* his/her own, i.e., learns it, his/her change (becoming adult) is seen in his/her increase in behaving as an adult.

From this brief grounding of child learning, the learning event of *autistic children* can be seen from a psychopedagogical perspective to determine its nature and adequacy.

2.4 THE ACTUALIZATION OF LEARNING BY THE AUTISTIC CHILD-IN-EDUCATING

2.4.1 Introduction

The following modes of learning, as modes of actualizing, and as essences of the phenomenon of learning, are discussed to better understand the actualization of learning by the autistic child:

(1) Accompanying modes of learning

sensing
attending

(2) Gnostic-cognitive modes of learning

observing/beholding
perceiving
imagining and fantasizing
thinking
remembering
actualizing intelligence

Before attention can be given to the modes of learning as such, it is emphasized that, in its *course,* the learning event forms a unity, and there are interdependencies and co-activities among the different modes of learning. Moreover, when the modes of learning are discussed separately, this fact must be continually kept in mind. In general, they can only be distinguished from each other, and any one of them continually intersects, supplements, accompanies, and predisposes the others (10 p 112).

2.4.2 Accompanying modes of learning

a) General

Sonnekus, Ferreira and Van Niekerk (11a pp 76-80; 11b pp 112-116; 11c p 81) have qualified sensing and attending as accompanying modes of learning because they represent a course in the learning event, and both serve as impetuses for actualizing the gnostic (cognitive) modes of learning.

b) Sensing

Although a person is continually an attentive, meaning-giving, and active presence in the world, his/her attentiveness only becomes awakened when he/she becomes aware of something or someone. Sonnekus (12a p 63; 12b p 76) indicates that sensing is not a matter of pure awareness but is an *intentional-subjective act of a person, as a totality,* in contrast to the views of the psychology of consciousness, which only makes mention of "sensations" resulting from sensory impressions originating from "stimuli" from the environment. Sensing is designated as the first concerned involvement with *content*, a becoming and being aware of matters on an intuitive, naïve, vague, unordered, superficial, pre-cognitive, and pathic-affectively attuned (emotional) level (13 pp 114-117). Sensing not only serves as the origin and precondition for attending, but also for all additional cognitive modes of learning.

Sensing initiates and accompanies further learning on a gnostic-cognitive level, because effective attending, perceiving, thinking, remembering, etc. require a *stable* sensing.

That sensing is an emotional attunement expresses the fact that stability, security, calm, confidence, and equanimity stabilize sensing, while anxiety, tension, uncertainty, and insecurity labilize attending. Although it is the foundation on which all knowing, structuring, and ordering are built, because of the absence of wondering, attending, perceiving, thinking, reflecting, and acquiring knowledge, it can hardly be designated as an exploratory, intellectually directed effort, and lived experience (14 p 64). Thus, sensing is pre-cognitive in nature, and can be designated as a genuine way of associating with reality which, at the same time, is very subjectively colored. Each child's sensing is unique since it is a way in which he/she gives personal sense and meaning to everything with which he/she is involved.

Erwin Straus and Sonnekus (15 p 115), moreover, emphasize that sensing is time-space bound. Child ways of living, such as touching, smelling, tasting, hearing, and seeing are concrete-sensory in nature, and in their totality, and as a unity, impact sensing as a mode of learning, and point to its time-space boundness.

As far as the *autistic child's* actualizing sensing, as a mode of learning is concerned, it is emphasized that, especially with school beginners, for a variety of reasons, it progresses inadequately. Because of the absence of a manifested, genuine human being aware of him/herself and others, as persons, and of the meaningfulness of things in the surrounding reality (without which sensing is barely realizable), the autistic school beginner conducts a seemingly "unconscious" way of existing. The following question, as asked by Husserl, and cited by Bosch (16 p 110), can be applicable to the autistic child, and offers an apt description of such a child's way of existing: "Husserl has discussed the interesting question to what degree a solipsistic conceived subject, i.e. a perceiving and thinking subject without the least idea of another and, thus, also oblivious to itself, without any awareness of itself, can arrive at the constitution of a world". Because the autistic child's being aware of reality, as an attentive–being-in-the-world, appears to be so attenuated, it is obvious that his/her sensing will be of a particularly weak quality.

Because sensing is strongly permeated pathically-affectively (emotionally), and that the autistic child is characterized by a labile, even impulsive emotional life, it can be correctly asserted that such a child's sensing is very labilized. Hence, an autistic child is handicapped in his/her everyday experiencing of reality, especially because his/her wondering, feeling of ignorance, and his/her initiative to overcome resistances (as a matter of willing) are extremely inadequate. Prick and Calon (17 pp 274-286) also emphasize, in this context, the fact that self-initiated, activities of intellectual effort by the autistic child are lacking. It is precisely this labile and impulsive affective life of an autistic child which obstructs his/her elevation from a pre-cognitive to a cognitive level of experiencing.

Where, with a normal child, sensing *initiates learning* because it leads to wondering, curiosity and giving meaning to the content which he/she senses, this is not the case with an autistic child. The conspicuous otherness of an autistic child, in this respect, especially comes to the fore if the absence of *listening, and observing* is considered (i.e., gnostic-cognitive modes of learning initiated by sensing and attending as accompanying modes of learning). The rare, inappropriate use of the sense of vision and hearing, as well as the fascination with impressions from touching, smelling, and tasting, merely for the sake of primitive sensing, which clearly has to do with bodily satisfaction, are characteristic of an autistic child. For example, from early on, he/she shows no visual or auditory directedness, for the sake of effectively exploring reality. According to Prick and Calon (18 p 212), with the autistic child, there is no indication of an objectifying (i.e., stepping outside him/herself) in sensing and perceiving. The autistic child is so unobservant of and uninfluenced by meaningful visual and auditory stimuli, such as, e.g., the appearance of a person in his/her vicinity, and the human voice, so that he/she is seen as "blind" and "deaf" by the uninformed (19 pp 8-11). An autistic child's imprisonment in senso-pathic sensing also involves him/her being caught in using the senses of touch, smell, and taste, as well as vibrating sensations merely for the sake of bodily satisfaction, or satisfying desires, and he/she does not use sensing to explore reality (content) in a meaningful way. Wing (20 p 177) views this/her excessive use of the so-called "near senses" as characteristic of an autistic child, and she expresses herself as follows: "Perception is done much more by their tactile and kinesthetic senses, and even by their sense of smell or taste". This attachment to haptic contact, i.e., a desire to feel and touch an object, becomes especially clear when Wing (21 p 42) describes the comings and goings of an autistic little girl as follows: "She would examine objects by holding them near her eyes – also by touching, tasting, and smelling them, and seemed to find enjoyment in the feel of smooth surfaces".

Certain autistic children even go so far as to smell a person on first acquaintance (22 p 68). An attachment to senso-pathic sensing, being thrown back on and imprisoned in his/her own body, and a "desirous immersion in bodily stimulation" are seen by Prick and Calon (23 pp 254, 161) as characteristic of an autistic child, and

report on this as follows: “Wij zijn de mening toegedaan, dat eerst dan met recht van autisme gesproken mag worden, wanneer enerzijds de beleveniswereld geconstitueerd wordt door het beleven van het eigen lichaam en het lustvol daarin opgaat, terwijl anderzijds blijkt, dat deze beleving slechts optreed bij een overdriven prikkeling van de tactile-proprioceptoren en de daarmee corresponderende structuren der nervale organisatie”. The autistic child’s imprisonment in sensory “stimulation” is sketched by these authors as follows: “Autistische kinderen blijven steken in de wereld van tasten, zich bewegen, voelen en ruiken, *en* ook daarin ontbreekt de aandacht voor het andere of de ander als zodanig en overheerst het ervaren van het lichaam zelf, het geen steerk met lust en onlust geladen is. Terwijl deze kinderen blijven hangen in de wereld van de tast, wordt dit tasten bij normale kinderen ondergeschikt gemaakt aan het zien en het horen. Normale kinderen leven dan ook in de wereld om hen heen, terwijl bij autistische kinderen de spontane toewending tot de wereld achterwege blijft”.

The conspicuous difference in the sensing found in the autistic child, done to satisfy bodily needs, is described as follows by Prick and Calon (24 p 210): “Op het laagste trede van het lichamelijke bestaan is de wereld de autist slechts gegeven onder het aspect van het tastbare, het trilbare, het beweegbare, het schommelbare, het stootbare, het stuitbare, het besnuffelbare, het aflikbare en het afzuigbare”. The autistic child’s attachment to stimulating the skin can also show itself in great enjoyment of being involved with sand and water. The autistic child’s interest in this, merely for bodily stimulation, appears clear in the following description (25 p 239): “Ann picked up a handful of sand, sniffed it, and gave a gurgle of pleasure. For the rest of the holiday, she spent her time running round and round in the sand, scooping up great handsful and throwing them in the air with squeals of joy”.

Sensing, as an initiating way of attending, and gnostic-cognitive learning will, thus, be very difficult for an autistic child to actualize.

c) Attending

As cited by Sonnekus, by the concept *attending,* Van Niekerk means a readiness, an active, exploring directedness to and an actively

remaining involved with and lingering with something (learning content), or someone (26 p 44). A lived experience of stable sensing is a precondition for attending, while attending is a precondition for all cognitive learning on whatever level and of whatever nature (27 p 43).

Thus, attending is correctly qualified as an *accompanying mode of learning* for all gnostic-cognitive modes of learning, such as perceiving, imagining, fantasizing, thinking, and remembering. The optimal actualization of attending by a child is necessary for adequate teaching and learning to occur in a teaching-learning situation.

A lived experience of stable sensing serves further as an impetus for a child to be readily willing to linger with the learning content on a higher level, i.e., on a conceptual, cognitive level, to explore this content in a self-actualizing and meaning-seeking way, to know, to analyze, and to order, and synthesize it (28 p 44). Thus, attending is an act of *intentionality,* and is grounded in a child's being propelled by a lived experience of wonder, and by a search for the sense and meaning of what is attended to.

In this taking up of an exploratory position, a child continually lived experiences resistances, and is supported by his/her willing, which gives direction and purpose, and especially leads to a decision, and is accompanied by a lived experienced stable sensing (which can be qualified as: *I-can-know*), a child makes a willful decision as a decision, lived as meaningful, and he/she lingers with the learning content, or merely gives his/her attention to it (29 p 44). It is obvious that labile sensing allows attending to fluctuate, become attenuated, and, thus, prevent the possibility of effective learning.

In a purposeful, unwavering, and resolute way, attending is focused on the learning content, and can be designated as an *accentuated intention to learn,* since it is backed up by a decision to remain involved with the learning content. In addition, attending is viewed as a selective activity, because there is always something specific in the point of focus of his/her attending, and the surrounding, less important data remain provisionally and vaguely in the background (30 p 119). Thus, essentially, attending is *selective* because no more

than one matter can be attended to at the same time. Through this fixation of attending on the meaningful, it is possible for a child to be able to learn to know the learning contents, since moments, such as identifying, delimiting, analyzing, comparing, ordering, and integrating always come into play (31 p 119). The eventual learning result of sustained attending is understanding and insight, i.e., knowledge.

For a variety of reasons, attending, as a mode of learning, is under actualized by an autistic child: With his/her unfailing, unusual aloofness toward others, his/her defective affection for directedness to and encounter with fellow persons, he/she is hindered in realizing a pedagogic encounter in a teaching situation. Thus, an autistic child fails to attend to the learning content which is unlocked for him/her by a teacher. Excessive turning into oneself (introversion), and a continual withdrawal from reality, characteristics of young autistic children, imply that such a child's way of existing as a person stagnates, and becomes rigid, and the meaningfulness of his/her life is not realized: "De wereld lokt het kind dan niet uit tot nieuwe en andere ontmoetingen, met mensen en dingen, persoonlijk en intiem", according to Van Spanje (32 p 32). Thus, it is obvious that attending, as an act of intentionality, is hardly realizable by an autistic child.

Different than a normal child, sometimes an autistic child is incessantly involved in "discovering", and examining his/her fingers, even long after his/her days of infancy have ended. Because of this, paying attention is also difficult. In addition, his/her labile emotional life brings about a weak venturing attitude, and impedes attending, as a purposeful turning to and remaining with the learning contents.

Paying attention also requires a sustained attentive directedness to the meaningful, without unnecessary fluctuations in attending, and this also is closely related to a fixation of attending on the meaningful, without it being unnecessarily diverted and becoming engrossed in nonessentials, trivia, or by things which are not relevant. In this respect, according to Frye (33 pp 430-431), an autistic child is guilty of unsuitably, faultily directed attending because he/she is often engrossed merely in the outwardly

perceivable, the less important, or matters which are not at all relevant. Such unsuitable directions of attending do not offer a solid foundation for the cognitive modes of learning. This not only brings about defective imagining but, at the same time, promotes defective concept formation, concretely bound thinking, and an inadequate development of thought.

Harmony between the concentration of attending, and its shifting to other meaningful learning contents, also determines its quality. Excessive, compulsive being anchored by only a few slices of the surrounding reality (perseverations), on the one hand, and hyper-distractible attending, on the other hand, both of which are characteristic of many autistic children, adversely influences full-fledged attending (34 p 69). Also, these children often lack the necessary ability to concentrate on the essentials, and to ignore stimuli not relevant to the specific thinking, or learning assignment. Besides this, because of perseverations, rigidness, and inflexibility in directing his/her attending, an autistic child is often hindered in proceeding to flexibly attending (35 pp 177-178).

In addition to ineffectual attending, phenomena arise, such as hyperactivity, weak concentration, quick fluctuations in attending, and a short attention span because of a heightened distractibility in attending, which is especially characteristic of brain damaged children, and with some autistic children.

The inadequate self-actualization of attending by an autistic child will not only impede the possibility of actualizing additional knowing, or cognitive modes of learning, but this also lessens the regurgitation of meaningful lived experienced, congealed possessed experience. Thus, an autistic child's experiential world is decidedly impoverished by his/her problems in attending adequately.

2.4.3 GNOSTIC-COGNITIVE MODES OF LEARNING

a) Observing/beholding

Van der Merwe (36 p 171) has illuminated the essences of observing, as a way of actualizing intentionality, from a psychopedagogic, lived experience perspective. He describes it as

follows: “Observing is taking a personal position, a total sensorial act of lived experiencing by a subject who is a totality-in-function in communication with reality, and who momentarily lived experiences in the lifeworld by actualizing intentionality (as a constitutive foundation), which includes sensing (the primary way of lived experiencing), as well as the preponderantly gnostic modes of lived experiencing of perceiving, imagining, fantasizing, thinking, actualizing intelligence, and remembering”. Thus, observing is a *total sensorial act of lived experiencing* which embraces the mentioned modes of learning, or more specifically, their sensory components (37 p 87).

Observing is also a totality act of intentionality (i.e., a person is involved via emotional, willing, and cognitive efforts) and, therefore, it can be viewed as a means by which his/her openness and meaning-giving directedness to the world are shown (38 p 140). Via his/her senses, a child comes forward to meet the world to experience it, and establish a personal and unique experiential world for him/herself.

However, child observing is borne and propelled by the adequate actualization of the accompanying modes of learning (sensing and attending) and, therefore, their adequate actualization is a prerequisite for its actualization, as a mode of learning.

To make an effective teaching and learning effect possible, a child must be able to see, or observe the meaningful contents, i.e., what at a given moment is of relevance in his/her surrounding world. If it is assumed that a child must be able to place his/her senses in the service of a humanly appropriate exploration of and giving meaning to reality, the conduct of an autistic child, in this respect, is clearly conspicuous. The absence of *observing*, i.e., an *attentive looking,* for the sake of exploring reality, especially characterizes a difference between autistic and normal children.

This activity of looking (observing) points to a more active, directed connection with the learning content than does a more passive seeing or optical perceiving, because the former is clearly meaning seeking, exploring, meaning-receiving, and meaning-giving in nature. The activity of looking is a result of giving attention and is a

requirement for exploring and structuring the surrounding reality. When a person inspects, or observes something, or someone (content), it is as if he/she feels the observed with his/her look, in this way he/she shows his/her openness, his/her conscious, attentive directedness, and it becomes the problematic for him/her, the focal point of his/her concentration, and he/she eventually gives it meaning (39 p 66). In actively looking, there is, thus, the delimiting of a landscape, and the structuring, or designing an optimal space to which attention is focused. However, it is not only important to actualize observing, as an exploring directedness, but *also to appropriately place the meaningful at the center of this optimal space as soon as attending is fixed on it.*

In contrast to a "normal" child, who shows an alertness in his/her eyes, the eyes of an autistic child appear as lifeless marbles, and their vacant look is conspicuous. The appearance of an autistic child's eyes, because of an absence of purposive acts of looking, are typically described with "…. their strange staring look", "empty gaze", "vacuous, unfocussed staring into space", etc. (40a p 7; 40b p 82). Because of their "unconscious" existence, their inability to distance themselves from themselves, and because of the lack of wondering, curiosity, and an exploratory directedness, they are not able to concentrate on and attend to their more distant, visual sensing. Because they are unable to direct their attention to the more distant filed of vision, as far as lived experiencing visual impressions is concerned, they are, as it were, riveted to what is at hand. In this connection, Wing (41 p 11) asserts the following: "Peripheral vision tends to be used in preference to central". Prick and Calon (42 p 155) describe this phenomenon as follows: "Hun zien is slechts een optisch waarnemen, dat bij de mens steeds een objectiverend moment omvat, benevens een uit-zich-zelf-treden en een in-contact-treden met de verte impliceert, is geen sprake. Hun optisch ervaren is derhalve geen echt visueel waarnemen en geen kijkennaar. Bij autistische kinderen blijft de spontane toewending tot de visuele wereld achterweg". Thus, an autistic child does not succeed in delimiting his/her visual landscape and proceed to optimally structure it. Because, with such a child, there is no noticeable truly exploratory directedness, interest in, and purposeful exploration of a meaningful landscape, there is no genuine observing.

Autistic children usually have no facial directedness, and fail in taking a face-to-face position with respect to another. Rather, it seems as if they purposefully try to avoid eye contact, remain next to a person, or even look "through" a person, and stare into space (43a p 137; 43b p 28). Wing (44 p 7) views this lack of facial directedness as a general characteristic of young autistic children, and expresses herself about this as follows: "Almost all these children go through a prolonged stage during which they do not look anyone in the eye".

In addition to observing, the *act of listening* is a cognitive mode of learning which results from attending as an accompanying mode of learning. Because a person does not hear or listen in a merely process-like, or mechanical way with his/her auditory organ and brain, it is necessary to consider a person's attunement, especially to the heard spoken voice of another (voice-directedness), and his/her interpretive potentialities to be able to give meaning to its thought-contents. Hence, listening, just as observing, can be viewed as *a way of actualizing intentionality by a person, as a totality in communication with reality.*

To be able to listen to the spoken voice of another requires openness, an exploratory disposition, and an auditory directedness (voice-directedness) which is meaning seeking, meaning experiencing, and meaning giving (45 p 78). The voice of a fellow person obviously does not invite any auditory, or visual directedness, as well as being an emotional disturbance for an autistic child. Thus, he/she does not manifest him/herself as one who is addressed and listens, he/she does not listen if he/she is called by name (46 p 160), and because he/she is perhaps unaware of his/her surrounding world, he/she takes note of what is happening around him/her in an entirely paculiar, incomprehensible way (47 p 11). In this connection, Prick and Calon (48 p 212) report as follows: "Van een objectiverende, d.w.z., een buiten zichzelf tredende gewaarwording en waarneming is bij hem geen sprake. Zij luistereeren niet naar iets, doch zij bemerken slechts akoestiche impulsen en taxeren deze op hun nuttigheids- of schadelijkheidsaspect".

Autistic children listen only to what is meaningful to them, e.g., to music which causes vibratory bodily "sensations", and ignore stimuli which are meaningless to them. Thus, they do not use their sense of hearing, via attending, to carry on a dialogue with learning contents which are unlocked, or to encounter others, but to protect themselves from anxiety provoking lived experiences (49 p 431). Because an autistic child does not hear and listen in genuinely human ways, he/she is often viewed as deaf (50 p 152). Possibly because of a possible disharmony, and absence of an integration of the various functional levels within the central nervous system, an autistic child cannot give sense and meaning to auditory impressions (51a p 246; 51b p 29). Because of his/her unusual, ineffective employment of his/her distance senses (seeing and hearing), i.e., which he/she does not attentively look, and listen adequately, initially an autistic child is not able to realize the cognitive modes of learning and is not able to encounter fellow persons in a full-fledged way. Wing (52 p 21) states the matter as follows: "Some go through a phase in which the speech of others seems to produce real distress, as revealed by a tendency to cover the ears and eyes, or even by screams". Such behaviors possibly can be attributed to deficient potentialities for attributing meaning.

The inadequate self-actualization of observing (looking and listening) by an autistic child not only obstruct the figuring forth of adequate teaching, but also the actualization of perceiving, thinking, and remembering, as cognitive modes of learning.

b) Perceiving

Erwin Straus, as quoted by Sonnekus and coworkers (53 p 84), indicates that perceiving means that the naïve, pathic character of sensing has been broken through, or surpassed. Thus, perceiving implies the giving of meaning to sensing in an active, intentional directed, cognitively effortful, and conceptual way. Hence, it is a gnostic way of lived experiencing on a distanced, cognitive level which involves the real, actual, factual, objectively perceivable, and actualized by means of a universal medium (54 p 84).

Through perceiving and lived experiencing meaning, a child's horizons of knowledge and familiarity increase. As a gnostic-

cognitive mode of learning it is directed to the problematic, especially to analyzing, comparing, reflecting, ordering, and synthesizing it, in and by linguistic description which leads to knowledge of the object. Thus, according to Sonnekus (55 p 66), Straus views the "first seeing" of a person as his/her giving [subjective] personal meaning, thus, sensing, and the "second seeing" as perceiving, by means of identifying [the object], via language, as a universal medium. The terrain of the generally knowable, the factual is, thus, entered, and the vagueness, lack of clarity, and lack of structure which exist on the level of sensing, become illuminated, understandable, and ordered during perceiving (56 p 120). Also, the quality of perceiving is related directly to the degree to which he/she succeeds in adequately actualizing the accompanying modes of learning (sensing and attending).

In the following, it is necessary to attend to some important essences of perceiving, illuminate them, and indicate what adequate perceiving demands of a child. First, adequate perceiving requires *stability in affective lived experiencing*, which will promote a distancing [from sensing] to perceiving, in contrast to lability in affective lived experiencing, which can lead to a pathic flooding of perceiving, or to disturbing it (57 p 84).

Perceiving is also propelled by *a positive willin*g, which makes possible the self-initiation of perceiving, as an act of intentionality. That is, a person who perceives is willingly directed to the essential nature of what he/she experiences in perceiving. He/she wants to be aware of, know, grasp, and understand (58 p 120).

A precondition for "objective" perceiving is a child's ability to distance him/herself from his/her subjective-pathic lived experiencing, as well as be able to loosen him/herself from being self-oriented, and his/her immediate needs, and to direct him/herself in more formal ways, to the remote, to the problematic (59 p 84).

At the same time, adequate perceiving requires the ability to delimit or define the object of perceiving, and place it in the foreground, while the totality of data which surround the perceptual field are vaguely in the background. Thus, perceiving must be *global*

identifying (60 p 121). In this context, identifying refers to *recognizing the essentials* of the perceived.

The question which now arises is how the once vague and unstructured nature of the learning object which a child experiences on the level of sensing is elevated (to perceiving), and what demands does this place on a child. By attentively listening, looking, and feeling, i.e., by an analyzing activity, a child can perceive finer details, and strengthen his/her grip on the larger whole. An analysis of the learning content makes additional understanding, and insight possible, and promotes gnostic-cognitive learning (61 p 122).

Moreover, perceiving requires *synthesizing,* i.e., forming a synthesized whole from the parts or subparts, in which seeing relationships plays an important role. Synthesizing places the crown on what a child has globally identified, and analyzed by means of perceiving (62 p 123).

Perceiving also assumes that *ordering* must be actualized, indeed, in and through descriptive speech, questioning, naming, and formulating the perceived. As a gnostic-cognitive mode of learning, perceiving is inseparably connected with language, as a generally valid medium for naming, describing, and formulating. In addition, perceiving is not realized in a watertight compartment but, as a mode of learning, it is intertwined with moments of thinking, remembering, imagining and fantasizing—all gnostic-cognitive modes of learning. A child's possessed experience, among other things is the fruit of remembering, and facilitates further perceiving, while deficient possessed experience thwarts its effectiveness (64 p 125).

An *autistic child* differentiates him/herself from a "normal" child in that he/she is not one who yearns for, or embodies a dialogic involvement with others, and the surrounding reality. The human search for a grip on reality, whether by an involvement of acting, perceiving, thinking, searching, questioning, playing, or working with the surrounding reality, emphasizes the fact that a human being is one who searches for, finds, lived experience, and gives, or creates meaning to find a foothold in the world for him/herself. An

autistic child's defective speech, acquisition, and mastery of language, as well as his/her lack of directedness to fellow humans, spoken communication, the child question, spontaneous communication of experiences to others, unquestionably imply the inadequate actualization of perceiving, and all other gnostic-cognitive modes of learning. Deficient mastery of language also results in perceiving being bound to the concrete, and a child does not succeed in realizing perceiving on a higher (abstract) level. Language acquisition, as a precondition for perceiving, is only possible when his/her "unconscious", purely self-directed way of existing is broken through, and he/she shows signs of a directedness to fellow persons, the search for, the receiving and giving of meaning.

Adequate perceiving is closely related to the fixation of attending on the essentials, without being distracted by and engrossed with non-essentials, and trivialities. Frye (65 pp 430-431) asserts that an autistic child is guilty of the unsuitable, faulty direction of attending, because his/her attending often becomes engrossed merely with outward appearances, the less important or matters which are entirely irrelevant. This hinders this child in adequately realizing all cognitive modes of learning, including perceiving.

Frye (66 p 431) also mentions the poorly integrated perceiving of certain autistic children, and ascribes this to their difficulty in generalizing, i.e., the connection between the newly perceived and possessed knowledge is difficult to see, and understand; also, he/she is unable to see connections, and find relationships, and to perceive with insight. Rimland (67 p 79) sketches the matter as follows: "He cannot integrate his sensations into a comprehensible whole – his perception of the world is, therefore, vague and obscure".

An autistic child's inability to distance him/herself from his/her subjective-pathic lived experiencing and loosen him/herself from his/her bodily needs are described thusly by Prick and Calon (68 p 212): "Van een objectiverende, d.w.z. buiten zichzelf tredende waarneming is bij hem geen sprake".

From the above it, thus, is clear that an autistic child is seriously retarded in his/her perceiving, as a gnostic-cognitive mode of learning.

c) Imagining and fantasizing

To be able to understand imaging, as a gnostic mode of learning, it is necessary to indicate the difference and connection between it and perceiving. Where perceiving is directed to the real, concrete, palpable, observable world, imagining is an entirely different relationship to reality, i.e., the "perceived" [imagined] object is not present, but is "represented" by an act of imagining. Imagining means a directedness to an irreal [imaginary] world, an unrealistic world, as a "reality in distance" (Sartre, as quoted by Sonnekus (69 p 67). The vividness of perceiving, with its richer differentiation, sharper outlines, and greater detail are not realized in the act of imagining. Thus, imagining refers to a breaking through reality, because it represents a more distanced relationship to and giving meaning to reality (70 p 130). However, no matter how "unrealistic" imagining might be, it is necessarily connected with previous perceptions because *something* is imagined (Minkowski). This means that it finds its origin (fully or partly) within reality and is inseparably related to a child's possessed experience (71 p 130). A child's possessed experience largely provides *content* for what he/she imagines for him/herself. However, this does not imply that imagining merely must be "reproductive", because the data of perceiving are surpassed because something new or additional is added. Thus, imagining includes a distancing from and surpassing of reality, as a space for a creative or imaginative involvement with it (72 p 131).

But the possibility exists that such imagining can be true to or foreign to reality, the latter occurs when links are found to a child's fantasy life. In addition, it is emphasized that, although imagining is not thinking, it can make the latter possible, and even initiate it (73 p 131).

In comparison with imagining, *fantasizing* is a way of attributing meaning which is even more distanced from reality. This implies a distancing to the unknown, the future, to that which is not yet, or

may never become reality (74 p 67). Fantasizing is, thus ,a "free play of images", an activity which offers an opportunity to "escape" reality, and to "lose" oneself in a world where pathic-affective feelings, wishes, or desires are rampant (75 p 131). Thus, the fantasy world has a genuine personal flavor with a strong pathic-affective color.

Fantasizing also offers the possibility of thinking creatively, penetrate, and work productively on a predominantly gnostic-cognitive level (76 p 131). In concert with imagining, it is asserted that these two modes of learning are directed primarily to knowing, designing, creating, inventing, etc.

Imagining, as well as fantasizing offer the possibility of surpassing reality because they often give rise to new thoughts, ideas, designs, etc., and each not only has relevance for learning, but they also are culture-creating in nature (77 p 132). By means of imagining and fantasizing, a child surpasses the immediately perceivable world, and finds him/herself in the world of the abstract, with its primary gnostic-cognitive flavor.

Imagining and fantasizing are supported to an important degree by the quality of a child's previous perceptions and possessed experience. The effective integration of the perceived with existing possessed experience is decisively important for adequate imagining and fantasizing. The quality of a child's possessed experience, as the result of his/her experiencing, willing, lived experiencing, and behaving is going to be decisive for whether imagining will be true to reality. Imagining, as well as fantasizing can only be of high quality if there is an active support and realization of adequate thinking, and remembering, as cognitive modes of learning.

Concerning the *actualization of imagining and fantasizing* (as well as all other modes of learning) *by an autistic child,* it is emphasized that the defective giving meaning to reality, because of brain abnormalities, is perhaps the basis for this inadequateness. Continual withdrawal from reality, and an excessive self-orientation are only two ways in which the defective attribution of meaning (interpretation abilities) shows itself, and exercises an influence on a child's fantasy life, as is seen in the following comment by

Bettelheim (78 p 81). "The more the person withdraws from reality into autism, the emptier, the more repetitious, and stereotyped becomes his fantasy life. Autistic children are not usually interested in what goes on at any distance from them". Also, Wing (79 p 220) holds the same view, in this connection, and asserts: "Autistic children have little imagination, and can rarely be interested in fictional events".

Imagining and fantasizing imply a breaking through reality, and a being directed to the irreal. Thus, an autistic child's sustained *maintenance of a specific order* in his/her everyday dealings, his/her attunement to *preserve the same conditions* (e.g., the arrangement of furniture in a room), as well as his/her *vehement protest against changing an order,* or refusal to accept new things are mentioned as restraining factors in the actualization of imagining and fantasizing (80a p 1485; 80b pp 453-457). With respect to this excessive attunement to a specific order, Vedder (81 p 153) draws the following conclusion: "De zin voor orde is dus bij hen een aanwijzing, dat hun wereld zeer verarmd, hun omschakelingsvermogen nihil geworden is en dat zij van de wereld geen afstand kunnen nemen".

The meaningless handling of objects day to day in the same way, a peculiar phenomenon with many autistic children, can also be viewed as a hindrance to realizing imagining and fantasizing, as modes of cognitive learning. The purposelessness, and unimaginativeness of such activities are clear in Wing's (82 pp 9-10) pronouncement: "Autistic children tend to use objects in ways which are quite unrelated to their proper function, for years after the infant stage. Such activities seem empty, meaningless, obsessionally (sic) repetitious, and quite unlike the creative fantasies of the normal child. Some children are only interested in spinning the wheels of toys, others in shaking them to make a noise, and so on. Whatever the interest, any available object is pressed into service regardless of its intended use and cannot be qualified as part of imaginative play as normal children would do". An autistic child is so imprisoned in senso-pathic "play" that there is no mention of illusive play. For example, building blocks are gripped each time in precisely the same way to form a tower, and such a child will not take the initiative to try to build a house with them.

Similar unimaginative handling of toys by an autistic four-year-old girl is described by Wing (83 p 64) thusly: “She lines up her toys in a line across the room and out of the door into the garden”.

An autistic child’s inadequate imagining also comes forth in his/her involvement with others. For example, an autistic child can give no evidence that he/she recognizes his/her parents, shows no sadness when they depart, and leave him/her alone, shows no joy when he/she sees them again after a short time, doesn’t have the vaguest idea of greetings, does not smile at or for his/her mother in humanly appropriate ways, etc. With respect to the “lifeless” facial expressions of an autistic child, Vedder (84 p 143) expresses himself as follows: “Een contact-op-afstand kunnen zij niet maken en daardoor ontbrekken bij hen de typisch menslijke vormen van verstandhouding, zoals door middle van de ogen, de blik en de mimiek tot stand pleegt te komen”.

The emotional dullness of the autistic child can also be ascribed to his inability to actualize imagining as a being directed and as a mode of learning. Emotionally, the autistic child often is hardly reachable or impressionable, is unmovable, addressable, and difficult to influence. Also, he often shows extremely inadequate sympathy, compassion, consideration, or empathy with respect to the discomfort, sorrow or suffering of another (85 p 90). Wing (86 p 88) describes these inabilities of the autistic child as follows: “He reveals a lack of understanding of how other people feel and how they would react to his behaviour”. Thus, the autistic child is not able to intellectually imagine the feelings of another.

Bettleheim (87 p 451) ascribes an autistic child’s belief in the “permanence” of the existence of persons and objects to a shortcoming in his/her interpretive- (in this case also imaginative-) potentiality, and reports on this as follows: “The autistic child is unable to establish in the external world what he cannot establish in his mind. To the autistic child objects and people exist for him only when he sees them, or they are readily available; they cease to exist for him when they move beyond his familiar orbit. As long as the child is not convinced of his own existence as a constant, he cannot believe in permanence of any kind. Even where persons are of tremendous emotional significance to the child, their constancy as

persons is not established until that of the child himself is fully secured. It is this permanence of the image in the mind that lends credence to the permanence of an object or person when it goes out of reach and out of sight. Unfortunately, if no one has permanence then neither has he". The fact that an autistic child does not have a belief in the so-called permanence of objects or persons, again emphasizes his/her inadequate potentialities for imagining, and an inability to fully assimilate his/her lived experiences with his/her understanding (88 p 451).

The autistic child's extremely deficient body-awareness, -idea, --knowledge or –image can also be attributed to his/her inadequate realization of imagining. However, a deficient body-scheme can also be ascribed to the absence of spoken language communication, and an excessive self-orientation. Piaget, as cited by Bettelheim (89 p 444), notes the following: "It is precisely when the subject is most self-centered that he knows himself the least, and it is to the extent that he discovers himself that he places himself in the universe and constructs it by virtue of that fact". For example, body parts might not be seen as an inseparable part of an integrated unity. Thus, an autistic child might try to put her foot in a doll's pram, and push it around and, in doing so, show her deficient insight into and imagining of her own bodiliness. This extremely deficient body-image is also shown in an autistic child's robot-like drawings of persons. Hence, the human face is drawn as angular or round and the ears are represented as little wheels. Even when an autistic child must carry out the assignment to draw him/herself or his/her family members, there is a persistent construction of "lifeless, machine-like objects".

Although not peculiar to all autistic children, illusions, false notions (hallucinations), and ungrounded fears (phobias) arise in some of them. Incomprehensible, and inexplicable, sometimes intense fear for trivial, harmless objects, little animals, and certain routine activities arise with some autistic children. Wing (90 p 64) has found that two out of every three autistic children show one or another morbid, ungrounded fear, or anxiety. Thus, e.g., one finds fear of a washroom, of entering a bathroom, and especially climbing into the bathtub, for an escalator and an elevator, of putting shoes on, of getting a haircut, of climbing on a seesaw, or a rocking-horse,

of putting roller skates on, of the ring of a telephone, sounds of music, for dogs and cats, for the unexpected, loud roar of an engine or going into a church (91 pp 9-33).

In addition, an autistic child might feel threatened by the bright light from a streetlamp, or a large bush in front of a window which waves back and forth in the wind, or even a large truck which is called a "monster" (92 p 241). These ungrounded fears once again refer to the deficient imagining and understanding of reality.

The entire matter of the discovery, acquisition, and mastery of language, which also is a problematic matter for an autistic child, offers much evidence that in his/her acts of imagining, and fantasizing, an autistic child is thwarted by an inadequate mastery of language. Because a deficient mastery of language also hampers the quality of a child's thinking, remembering, and actualization of intelligence, the entire matter of language is discussed later.

In the previous sections it is noted that, for a variety of reasons, an autistic child fails in adequately actualizing imagining and fantasizing, as modes of learning.

d) Thinking

Van Niekerk (93 p 87) explains that, in thinking, an elevation in level occurs from an attentive-being-in-the-world to an attending-being–in-the-world because, in his/her thinking going out [to the world], a slice of reality is lived experienced as a *problem.* To be able to think, a child must first lived experience a problem in his/her involvement with reality. The questioning attitude of a child reflects the fact that earlier in his/her life he/she has had to deal with the problematic of reality and, for this reason, Straus (94 p 125) calls this questioning attitude the beginning of thinking, since it is a search for answers and solutions.

Sonnekus (95 p 263) points to thinking as an act of intentionality, by which methods of solution, and means of ordering are activated to cope with the problem situation, which is the task for thinking. By activities such as planning, analyzing, comparing, ordering, synthesizing, and abstracting, a child tries to arrive at a better

understanding of and solution to a problem. Although thinking, as a gnostic-cognitive mode of learning, cannot be separated from perceiving, it is largely perception-fulfilling, since a thinking child directs him/herself from his/her perceiving to the world of thought—a world in which the objective, the conceptual, insight, and understanding are in the foreground (96 p 126). Straus, as cited by Sonnekus (97 p 85), in this context, emphasizes the break-through character of thinking, which involves a distancing from an initial sensing (i.e., affective lived experiencing), via perceiving, and especially abstracting, to enter the level of the conceptual.

To better understand the break-through character of thinking, as a cognitive mode of learning, it is necessary to explicate the *affinity between thinking and language.* This affinity is discussed by Van der Stoep and Nel (98 p 61), under the heading: "The parallelism language-thinking, as a genetic [i.e., developmental] relationship". Meijers (99 p 24) states: "De taal is als een tweede rad, dat evenwijdig met het eerste rad het denken op dezelfde as loopt". Van der Stoep (100 p 72) asserts that thinking is always slightly in advance of language and, therefore, the latter follows thinking. In this regard, Lewis (101 p 44) says: "Thinking occurs prior to language; but when language is present, it certainly influences thinking; and there are forms of thinking which are difficult, if not impossible, in the absence of language". Kwant (102 p 184) expresses himself as follows: "Het denken existeert in het spreken. Toch vallen denken en spreken niet samen, omdat het denken veel existentievormen bezit. Aan het denken-in-worden moet echter to een privilege worden toegekend, omdat het zich tot alle vormen van denken kan uitstrekken". Van der Stoep (103 p 72), following Revesz, states the relationship between language and thinking as follows: "In the relationship between language and thought, their rank order appears to be evident: thinking is grounding, and language is a means to it but, in addition to their obvious coherence, there also is mention of a reciprocal interdependence which is mainly an unbreakable duality, which enters a multitude of relationships". While thinking, in its progression and additional mastery, is genetically prior to language, at the same time, language forms the stepping-stones, or the stratum on which thinking is supported. However, this relationship is mutual and, as language is a support for thinking, thinking is the impetus for additional

language mastery (104 p 254). According to Kwant (105 p 156), the word (language) "..... het werktuig, het vehikel van de levende, denkende geest", and is "..... de gedachte niet klaar met zichzelf, alvorens zij verwood wordt" (106 p 179). Thinking only comes to completion and to true thinking when it is expressed in words. According to Nel and Van der Stoep (107 p 24), thinking will undergo an inhibition, retardation, or even stagnation if the formation of thought is not continually crystallized into language and, therefore, the acquisition of language serves as the stratum for the continued development of thinking. Levine (108 p 21) expressed herself as follows regarding this: "From name to purpose to function to underlying reason, the child advances to steadily higher levels of abstract thinking". As soon as the thinking is crystallized in linguistic form, it offers thinking a foothold for additional ordering, categorizing, and abstracting, by which the language rises to a higher level (109 p 108). "If the verbal symbolic function were to be increased, the abstract level would be raised concomitantly", says Myklebust
(110 p 85).

Van der Stoep (111 p 23) asserts: "The highest function of the linguistic symbol is that it brings the unobservable and abstract to expression". By means of language, a child can distance him/herself from the observable-concrete and, via thinking, to enter the world of the abstract, of thoughts, thanks to the symbolic character of language. Language offers a person a means of traversing to the past, present, future, the abstract, the invisible, and distant, and is universally present and available because it is not bound to experiencing, or the concrete (112 p 114). This means a child can loosen him/herself from the concrete, and that the concrete remains, in existence, only in terms of symbols, or thoughts.

To abstract means to think on a conceptual level. By means of language, a child can distance him/herself from the immediately perceivable, while this distance is again partly eliminated by a meaningful concept. The concept becomes, as it were, a substitute for the concrete object, while the latter, in its turn, provides the origin of the concept imbued with meaning (113 p 127).

Because language is a person's means of discovering and ordering surrounding reality, this means that thinking requires ordering. From the surrounding world, a child delimits his/jer own world of meaning of the known and familiar by continually implementing language. Thought achievements, such as analyzing, schematizing, synthesizing, comparing, and generalizing are possible because of the possibilities for ordering which lie in language itself. Without such ordering, a child stagnates on the level of the concrete, and the symbolic world remains inaccessible to him/her (114 p 128).

Thinking for solving problems, implies that there are resistances and stumbling blocks which must be overcome. To succeed in this requires a pathic-affective readiness to participate, a strong willingness, and persistence to not shirk from the problem, but to solve it by means of cognitive effort. In addition, it is emphasized that all of a child's learning potentialities (the whole of his/her psychic life) are actively used during his/her act of thinking. In his/her thinking search for a solution, a child calls on his/her possessed experience, i.e., his/her ready knowledge, means, and skills at his/her disposal, as well as on his/her immediate perceiving, imagining, and fantasizing, all of which enable him/her to clear up the problem.

Thus, thinking, as a gnostic-cognitive mode of learning, is not only directed to abstracting, ordering, and solving problems, but because of their interdependencies, it is supported and augmented by the other modes of learning (115 p 129).

Because thinking is made possible by adequately sensing, attending, observing, perceiving, imagining and fantasizing, it is not at all surprising that an autistic child also under actualizes his/her psychic life potentialities with respect to thinking. Energetic behaviors, among which are intellectual activities, such as *thinking*, only appear and develop in an autistic child as openness, arises with him/her, i.e., when his/her almost closed, depersonalized, and bodily directed way of existing is terminated, and his/her active directedness to reality, and his/her regard for fellow persons are awakened through intensive educating. In addition, one must be aware that the devotion to a rigid, fixed way of existing not only results in an autistic child's world remaining unordered, but also

that the firming up of his/her knowing, remembering, fantasizing, and thinking cannot develop (116 p 429).

One of the greatest stumbling blocks in the development of an autistic child's thinking is his/her defective acquisition and mastery of language because his/her encounter with fellow persons is lacking. The communicative character of language especially comes forth in Kwant's (117 p 63) pronouncement about spoken language: "Zij is innerlijk en wezenlijk een ontmoetingswijs tussen mensen". Because child questions and spontaneous conversations about experiences are missing with an autistic child, this already implies a defective development in his/her thinking (118 p 164). Because an exchange of formulated thoughts is lacking, an autistic child does not him/herself take the initiative for the flourishing of his thinking, as can be concluded from the following pronouncement of Bettelheim: "The mere fact, then, of telling one's thought to others, or of keeping silence, and telling it only to oneself, must be of enormous importance to the fundamental structures and functioning of thought, in general, and of child logic, in particular".

The nature and quality of a child's act of thinking clearly emerges in the dexterity, or not, of his/her mastery of language, as seen in his/her implementing it. An autistic child's language and thinking are formal, impoverished, rigid, inflexible, practical, bound to the concrete-visible, and does not reach the abstract level (119 p 163; 120 p 454).

An autistic child finds it extremely difficult to think on a conceptual level, as is evident from the following assertion of Rimland (121 p 123): "The autistic child lacks the ability to relate new stimuli to remembered experience. He is thus virtually divested of the means for deriving meaning from his experience. He cannot understand relationships, nor think in terms of concepts, symbols, analogies, or abstractions; and he cannot integrate his sensations into a comprehensive whole – his perception of the world is vague and obscure". This deficiency in insightful thinking clearly emerges in the following observation of an autistic child: "Gwen, when she wanted to draw, would disregard which end of the pencil to draw with, even after she saw clearly that her pencil, when used with the wrong end, made no marks. At the same time, she was well able to

perceive that when someone at the dinner table had bread, he would soon want butter" (122 p 457). Also, Frye (123 p 431) mentions that an autistic child has difficulty in arriving at ordering in his/her thinking because relating things, comparing, and classifying do not appear: "Was sie neu wahrnehmen, bringen sie nicht oder zuwenig in Zusammenhang mit dem, was sie Schon fruher wahrgenommen odeer gelernt haben. Von sich aus legen sie keine oder nur wenige Verbindungen, und siedurchschauen nur schwer Zusammehange. Klassifizierung auf Grund von Erlebnistotalitaten fallt innen schwer".

Adequate thinking requires a pathic-affective readiness to overcome resistances, and stumbling blocks. An autistic child contributes nothing to the unfolding and flourishing of his/her emotional life; indeed, he/she communicates in affective distress, as evidenced by his/her desperate clinging to a trusted little world, and his/her inability to take a more formal, distanced, exploratory, cognitively effortful position (gnostic-cognitive directedness, such as thinking) toward reality.

Thus, the contribution of his/her thinking to effective learning is weak, and leads to the under actualization of learning, and the potentialities of his/her psychic life, and this leads to an impoverished experiential world.

e) Remembering

Viewed from a child-anthropological perspective, the mechanistic way of explaining memory by the (German) psychology of consciousness, which amounts to imprinting, storing, and reproducing (retrieving) impressions which were "registered" in the past, is inadequate. Straus (124 p 87) rejects the view that each impression is "registered" in consciousness, and that generalizations result from this detailed content. He emphasizes that a person is only able to remember when he/she can distance him/herself from the pathic lived experience, and can reflect and think about them on a gnostic level. He points out that, from the multiplicity of impressions in a person's association with reality, he/she tends to only remember the remarkable, the noteworthy, the new as meaningful (125 p 87). The importance of language in this respect

cannot be over emphasize, because exploring reality without the possession of language, what has appeared in the landscape cannot be verbalized. Hence, no permanence can be acquired because, without the possession of language, the ordered determination of experiences is not possible. Lewis (126 p 35) writes about this as follows: "What has been imperfectly experienced is imperfectly recalled".

Straus (127 p 134) describes remembering as a person's way of living, and involves him/herself with the question: how does remembering appear, as a *childlike way of being?* He then points to the following fundamental ways of being, which are at the basis of remembering: First, in his/her remembering, a person is *aware* of the *past,* as *past.* Thus, a person *remembers* the past (e.g., memorized learning material) in the *present.* Things, event,s or persons which are remembered are not present but, indeed, they are *re-presented,* and are "present in absentia" (128 p 86).

Second, remembering is a description of events in the *past tense*. It is a temporal relationship in which events in the past are described in relation to the present, and future. Thus, past and future meet each other in the present during the act of remembering (129 p 135).

Third, Straus refers to remembering as an activity of someone who lived experiences the *presen,t* in contrast to his past and future (130 p 135). Essentially, remembering means self-reflecting—a reflecting, viewing, or thinking by a person, as seeing him/herself as he/she was, from a distance (131 p 135). Indeed, remembering is a knowing mode of learning by which a child can "call up" or recall, in the present, learning content which he/she had mastered in the past. As it were, a child "stimulates" a relevant possessed experience, and implements it, here and now, in the [present] learning situation. Such possessed experience (foreknowledge) enables a child, in meaningful ways, to find relationships, acquire nodal points, and find linkages with the new knowledge (learning content) with which he/she is confronted in the [present] learning situation.

Further, it is important to mention that the so-called "calling up, or putting existing knowledge in the present", also assumes an active accompaniment of the other gnostic-cognitive modes of learning. When a child remembers, at the same time, he/she is actively involved in thinking, making representations, etc.

Remembering is also characterized by the fact that acquired *new* knowledge is not merely "added" to, but becomes integrated into his/her existing possessed experience. That is, new knowledge is meaningfully related to existing possessed experience and, thus, there is mention of a quantitative increase, as well as a qualitative deepening of a child's possessed experience (132 p 138).

Sonnekus (133 p 86) emphasizes that effective learning is closely related to a child's ability to adequately remember, by asserting the following: "Concerning learning, remembering, as a lived experience, plays an extremely important role in the learning historicity of children, where established learning relationships from the past must be re-experienced in the present.

What has been said about the autistic child's deficiently making connections, generalizing, integrating new knowledge with existing possessed experience, as well as his/her poorer conceptual and insightful thinking, at the same time, emphasize his/her inadequate remembering, as a gnostic-cognitive mode of learning. A phenomenon, such as the meaningless repetition of another's words (echolalia), which undoubtedly refers to the deficient meaning given to spoken language, is only one of the autistic child's hindrances in remembering adequately.

An *autistic child* often shows a competence in being able to recall non-essentials, or less important matters and, most of all, an errorless and unchanging recollection and recitation in the present, such as specific sequences and rankings, times, and dates, numbers, names of persons who have only temporarily intervened with them (hospital personnel), expressions, adages, long pieces of prose, or sometimes excel in a mechanical, rote memorization (134a p 163; 134b p 109). Things are precisely recalled just so, and recited as originally learned, without his/her *own interpretation, and reformulation* of the involved content (135 p163). Thus, no

integration of new knowledge with existing possessed experience occurs, and no varied ways of applying knowledge, or transferrable insights are shown, as is evident from the following pronouncement by Wing ((136 p 123): "Experiences appear to be stored exactly as they occurred, as programmes are in a computer, and can be reproduced, unchanged, in response to the appropriate stimulus. When they reach the stage at which they are asked to discuss the implications of the facts they have learnt, their handicaps become apparent". That an autistic child follows such a narrow, rigid existence, and has become entrapped in formalisms (stereotyped ways of associating with reality) explain his/her rigid, and one-sided memory, and the fact that the development of thinking and fantasizing cannot occur (137 pp 109, 427).

According to Rimland (138 p 203), persons with a phenomenal memory, which are often very one-sided, very seldom are imaginative and creative, and their reasoning is generally poor. Remembering, as a gnostic-cognitive mode of learning, which requires a supple, adequate grasp, and implementation of language, is often lacking in an autistic child and, consequently, he/she seldom succeeds in quantitatively and qualitatively expanding his/her experiential world.

Remembering, also an important mode of learning in school situations, presents an autistic child with serious problems, which contain an important task for teaching him (Read chapter 4).

f) Actualizing intelligence

1 The concept "intelligence"

When there is reflection on the actualization of intelligence, it is necessary to elucidate this concept. Intelligence, a human cognitive potentiality (intellectual potentiality, ability), can only be observed and evaluated after a person has succeeded in actualizing this personal potentiality by means of an action. Should this potentiality not be actualized, for some reason, it remains latent, or hidden, and cannot be judged. Concerning the description, or definition of intelligence, many authors have attempted to make a contribution and, in this respect, an essential danger is to fall into a

narrow-minded view. Certain persons view intelligence or, more specifically, its actualization, as an intellectual act, or cognitive event, while others view it as an ability to learn, to think abstractly, to deal with symbols, to see relationships, to reason, or arrive at correct generalizations (139 p 9). In addition, intelligence is sometimes viewed as a person's general ability to purposefully direct his/her thinking to new problems in life, while there are others among which is that intelligence is qualified as an ability to break through relatively unfamiliar problem situations (140 p 9). Robbertse (141 p 31) even concludes that the ability to think, and see relationships are the "sine qua non" of intelligence.

Sonnekus (142 p 311) describes intelligence as follows: "Intelligence is, within the totality of a person, the power to break through his/her "Umwelt" who, in his/her association with the world is continually confronted by new situations". It seems then that, according to Sonnekus, it is justifiable to come to the conclusion that, in his/her going out to reality, via thinking, he/she is continually confronted with problem situations which he/she wants the break through, via thinking, and intelligence, is the power to break through, in the act of thinking, particularly when this has to do with the newer in his/her relationship with the problematic.

2 Preconditions for actualizing intelligence

Intelligence is a potentiality at a child's disposal but, as a cognitive way of being, it must be actualized by a child's own initiative (144 p 85). Thus, this actualization is subject to the nature of the directedness of a child's intentionality. This directedness is codetermined, supported, and propelled by several powers, and competencies. Actualizing intelligence, as a way of being directed to the world, occurs as an integrated part of a person, as a whole and, therefore, may not be judge and evaluated apart from a child, as a person, and his/her affective and willing life, as an educand, and as a child who learns via human association and encounter (145 p 44).

First, it is important to mention that the actualization of intelligence is a matter of consciousness. Thus, a person must stand open for reality to be there, and be addressable, accessible, influenceable, i.e., he/she must him/herself be able to answer positively to the

enticements of the world, explore them, and encounter his/her fellow persons.

On the one hand, intelligence can be actualized by an attentive-lingering-with the broken through (146 p 88) problem situation and, on the other hand, it is a possible precondition for attentively being involved, and remaining involved with the learning contents, and problem situations.

In addition, a stable affective lived experiencing provides the impetus for actualizing intelligence, as a cognitive way of being. It will contribute to an affective readiness, i.e., to a positive willful disposition to participate in the situations with which a child is confronted.

The adequate actualization of the accompanying modes of learning (*sensing* and *attending*), as well as the cognitive modes of learning (*observing, perceiving, thinking, imagining and fantasizing* and *remembering*) are necessary preconditions for actualizing intelligence because learning is realized as a totality.

Because the possession and adequate mastery of language lays the foundation for all modes of learning, as well as for the actualization of intelligence, it is obvious that a person with linguistic deficiencies will not be able to fully realize his/her given intellectual potentialities. Because the various modes of learning mutually influence each other, especially because they are dependent on the adequate mastery of language, and especially because there is such a close affinity and interaction among language, thinking, and intelligence, it is not surprising that the successful acquisition of spoken language is such an extremely important aim in teaching an autistic child.

Further, it is important to emphasize that a child must be helped and supported to fully actualize his/her intellectual potentialities. Hence, he/she must be educated, and didactically accompanied to the responsible actualization of his/her intelligence. To the extent that a child lived experiences stability or lability in the educative relationships, there is the possibility that he/she is going to actualize his/her intelligence admirably or under actualize it. The

state of educating in its affective, cognitive, and normative structures of accompaniment is the foundation on which an accountable actualization of intelligence rests (147 p 80).

3 The nature, quality, and the actualization of intelligence by the autistic child

As far as determining the nature and quality of the intellectual potentialities of a withdrawn, language deficient preschool autistic child, it is necessary to be aware that, in fact, such a matter is extremely debatable, if not impossible. Thus, it is unaccountable and unacceptable to make firm pronouncements about his/her intellectual potentialities, and the eventually realization of his/her intellectual potentialities, or to dare to predict his/her scholastically achievable level on mere speculation. Openness, and the acquisition of language are essential preconditions for the actualization of intelligence by an autistic child, and it can only be evaluated if it is actualized in some way.

Because of his/her withdrawn, "passive" way of existing (especially as found in the autistic preschool child), researchers, such as Van Krevelen, Rimland and Rutter (148a p 123; 148b p 139) have incorrectly and summarily compared autism to mental deficiency. However, this view is rejected by most researchers, as is evident in the words of Wing (149 p 21): "Autistic children are not necessarily intellectually subnormal at all". Also, Frye (150 p 3) holds the view: "Die generalisierende Behauptung des Autismus als Schwachsinn ist unserer Meinung nach falsch". As in the case of normal children, there is a wide variation in intellectual abilities (in their latent state) found in autistic children. After unfolding their human potentialities (openness), i.e., their intentionality, thanks to specialized educative teaching, an autistic child is then able to actualize and show his/her given intellectual potentialities.

A continuous exploratory directedness, as well as a readiness to continually explore and expand the horizon of the known and familiar are important preconditions for actualizing intelligence. This spontaneous exploratory directedness,, for which Rimland (151 p 177) uses the term "mental alertness", however, can only be

entered after a time of giving an autistic child specialized educative teaching. Soon, such a child shows this/her readiness to learn (as a matter of willing), and makes the best of his/her intellectual talents, thanks to the establishment of the necessary pedagogical relationships of trust and understanding between him/her and his/her teachers, and a resulting genuine bondedness arises, and he/she lived experiences safety and security.

The full-fledged actualization of intelligence also requires that a child's intellectual activities must continually show a suppleness, variability, complexity, the ability to integrate experiences into existing possessed experience, to order, synthesize, make connections, to abstract, to transfer insights and apply them to problem situations, simply because the use of intellectual power (intelligence) is required in all activities and situations in a person's lifeworld. With respect to the nature and quality of the intelligence of an autistic child who has already mastered a positive exploratory directedness, it can be asserted that it remains practically directed, excessively one-sided, and inflexible, an imbalance between verbal and non-verbal intelligence is shown, and there is uneven development in their various facets (152a p 91; 152b p 458). It is found that some autistic children are able:

a) to show outstanding achievement in simple construction work, where the correct handling of building blocks, jigsaw puzzles, or form board materials are required during an investigation of his/her intelligence;
b) to correctly handle and understand the functioning of various mechanical devices;
c) to select and place objects next to each other, and to their described name, as presented on matching little cards;
d) to carry out assignments requiring manual dexterity, and spatial insight;
e) to show good recall of dates, calculations, numbers, persons with whom they are occasionally familiar, incidental facts, or even trivia.
f) to compute lightning fast;
g) to be able to accurately draw only a few objects;
h) to have a special propensity, or "talent" for music (153a pp 11-12; 153b p 146).

In sharp contrast to these achievements, as "islands" of intelligence it is, however, conspicuous that autistic children continually get stuck when confronted with intellectually demanding assignments which require adequate mastery of language, categorical abstraction, conceptual (abstract) thinking, and reasoning, integration of knowledge, relating things, varied applications of personal insights, originality, imaginativeness, and creativity (154a pp 11, 79, 86, 203-204; 154b pp 32, 163, 245; 154c p 431). Some researchers, however, fall into the trap of erroneously making extravagant claims, and predictions regarding an autistic child's intellectual potentialities, and achievable scholastic level, based on "encouraging signs" of skillfulness in successfully carrying out intellectual activities on a non-verbal level (155 p 13). Wing (156 p 151) directs the following warning about this: "It is dangerous, and possibly misleading to use form boards and similar performance tests to make predictions about a child's general intelligence or ability to benefit from a particular type of education".

To be able to speak of the "intelligence" of an autistic child, it must be kept in mind that it has to do with the entire ability of a person who must be able to successfully *actualize* his/her intellectual potentialities in a variety of ways, under many circumstances, and in any situation.

In summary, an autistic child does not adequately actualize his/her intelligence because of an under actualization of his/her intentionality, deficient mastery of language, labile affective life, stereotypic ways of associating with reality, and aloofness.

2.5 SYNTHESIS

In the present chapter, it continually emerges that, as a total event, learning is realized in terms of the accompanying modes (sensing and attending) and the gnostic-cognitive modes of learning (observing, perceiving, imagining, fantasizing, remembering and actualizing intelligence). In addition, it appears that there is a close affinity and interdependence among the various modes of learning, because they continually support and propel each other. It also is

noted that learning requires that a child take a personal position, as a totality-in-function.

A look at the actualization of learning by an autistic child shows that attentively-being-in-the-world, as a primordial learning potentiality, appears there as attenuated, and as being less aware of reality in a humanly appropriate way.

Because of a labile sensing, as a mode of learning, an unlocking of and for reality by attending occur with difficulty for an autistic child, especially because of an under actualization of intentionality [sd openness for and directedness to reality]. Weakened attending gives rise to a poor mastery of language, and his/her imprisonment in a rigid, stereotypic way of being, hinders the gnostic-cognitive modes of learning from arising, and being actualized.

Thus, an under actualization of learning occurs with an autistic child-in-educating, which includes an under actualization of the potentialities of his/her psychic life, and a limitation in the expansion of the horizon of his/her experiential world.

REFERENCES

1 FERREIRA, G. V.: Ervaar as psigopedagogiese kategorie. *Pedagogiekstudies,* Pretoria, University of Pretoria, No. 74, 1973.

2 SONNEKUS, M. C. H.: *Die leerwereld van die kind as belewenis wereld.* Stellenbosch, University Publishers and Boodksellers, 1968.

3 FERREIRA, G. V.: *Ervaar as verskynsel in die leefwereld van die kind: 'n Studie in die psigopedagogiese kategoriale denke.* Pretoria. University of Pretoria, 1973 (D. Ed. dissertation).

4 See No. 2.

5 LANGEVELD, M. J.: *Ontwikkelingspsychologie.* Groningen, J. B. Wolters, 1966.

6 See No. 2.

7 SONNEKUS, M. C. H. and FERREIRA, G. V.: *Die psigiese lewe van die kind-in-opvoeding.* 'n Handleiding in die psychopedagogiek. University of Pretoria, 1978 (Unpublished).

8 Ibid.

9 Ibid.
10 Ibid.
11a SONNEKUS, M. C. H. (Ed.): *Psigopedagogiek.* Stellenbosch, University Publishers and Booksellers, 1973.
11b See No. 7.
11c VAN NIEKERK, P. A.: *Aandagsfluktuasie as verskynsel by die onderaktualisering van intensionaliteit, met spesifiek verwysing na die agterlike kind.* Pretoria, University of Pretoria, 1971 (D. Ed. dissertation).
12a See No. 2.
12b See No. 11a.
13 See No. 7.
14 See No. 2.
15 See No. 7.
16 BOSCH, G.: *Infantile autism.* A clinical and phenomenological-anthropological investigation taking language as the guide. New York, Springer, 1970.
17 PRICK J. J. and VAN DER WAALS, H. G. (Eds.): *Nederlands handboek der psychiatrie.* Arnhem, Van Logum Slaterus, 1965.
18 Ibid.
19 WING, J. K. (Ed.): *Early childhood autism.* Oxford, Pergamon, 1966.
20 Ibid.
21 Ibid.
22 Ibid.
23 See No. 17.
24 See No. 17.
25 COPELAND, J.: For the love of Ann. *The Reader's Digest,* August, 1976.
27 Ibid.
28 Ibid.
29 Ibid.
30 See No. 7.
31 See No. 7.
32 VAN SPANJE, M. J.A.: *Het kind in de inrichting.* Deventer, Van Loghum Slaterus, 1969.
33 FRYE, I. B. M.: *Fremde unter uns. Austisten, ihre Erziehung, ihr Lebenslauf.* Meppel, J. A. Boom, 1968.
34 See No. 19.
35 See No. 19.

36 VAN DER MERWE, A. A.: *Aanskou as wyse van intensionaliteitsaktualisering in die beleweniswereld van die kind.* Pretoria, University of Pretoria, 1971 (D. Ed. dissertation).
37 See No. 11a.
38 See No. 36.
39 MAAT, S. J.: *Die opvoedingsverhouding as 'n van aangesig-tot-aangesig ontmoeting.* Pretoria, Univeristy of Pretoria, 1974 (M. Ed. thesis).
40a GOLDING, M. M.: The autistic child. *Opvoeding en Kultuur,* 1(1), Jan. 1976.
40b BETTELHEIM, B.: *The empty fortress.* London, Collier-Macmillan, 1967.
41 See No. 19.
42 See No. 17.
43a VEDDER, R.: *Kinderen met leer- en gedragsmoeilijkheden.* Groningen, J. B. Wolters, 1964.
43b OPPENHEIM, R. C.: *Effective teaching methods for autistic children.* Springfield, Illinois, Charles C. Thomas, 1974.
44 WINGS, L.: *Autistic children.* Aberdeen, Scotland University Press, 1964.
45 VAN ZYL, P.: *Die idée van geborgenheid.* Pretoria, University of Pretoria, 1970 (D. Phil. dissertation).
46 See No. 17.
47 See No. 16.
48 See No. 17.
49 See No. 40b.
50 See No. 43a.
51a See No. 17.
51b See No. 43b.
52 See No. 44.
53 See No. 11a.
54 See No. 11a.
55 See No. 2.
56 See No. 7.
57 See No. 11a.
58 See No. 7.
59 See No.11a.
60 See No. 7.
61 See No. 7.

62 See No. 7.
63 See No. 7.
64 See No. 7.
65 See No. 33.
66 See No. 33.
67 RIMLAND, B.: *Infantile autism.* London, Methuen, 1965.
68 See No. 17.
69 See No. 2.
70 See No. 7.
71 See No. 7.
72 See No. 7.
73 See No. 7.
74 See No. 2.
75 See No. 7.
76 See No. 7.
77 See No. 7.
78 See No. 40b.
79 See No. 19.
80a FREEDMAN, A. M. et al.: *Comprehensive textbook of psychiatry.* Baltimore, Maryland, Williams and Wilkins, 1967.
80b See No. 40b.
81 See No. 43a.
82 See No. 44.
83 See No. 19.
84 See No.43a.
85 See No. 33.
86 See No. 19.
87 See No. 40b.
88 See No. 40b.
89 See No. 40b.
90 See No. 19.
91 See No. 44.
92 See No. 25.
93 See No. 11c.
94 See No. 7.
95 NEL, B. F., SONNEKUS, M. C. H. and GARBERS, J. G.: *Grondslae van die psigologie.* Stellenbosch, Univeristy Publishers and Booksellers, 1965.
96 See No. 7.
97 See No. 11a.

98 NEL, B. F. and VAN DER STOEP, F.: *Wereldverhouding en taalimplementering by die dowe kind.* Pretoria, N. G. Kerkboekhandel, 1966.
99 Ibid.
100 VAN DER STOEP, F.: *Taalanalise en taalevaluering.* Pretoria, HAUM, 1965.
101 LEWIS, M. M.: *Language and personality in deaf children.* London, N F E R, 1968.
102 KWANT, R. C.: *Fenomenologie van de taal.* Utrecht, Het Spectrum, 1966.
103 See No. 100.
104 See No. 95.
105 See No. 102.
106 See No. 102.
107 See No. 98.
108 LEVINE, E. S.: *The psychology of deafness.* New York, Columbia University Press, 1960.
109 See No. 98.
110 MYKLEBUST, H. R.: *The psychology of deafness.* New York, Grune and Stratton, c 1960.
111 See No. 100.
112 See No. 7.
113 See No. 7.
114 See No. 7.
115 See No. 7.
116 See No. 33.
117 See No. 102.
118 See No. 17.
119 See No. 17.
120 See No. 40b.
121 See No. 67.
122 See No. 40b.
123 See No. 33.
124 See No. 2.
125 See No. 2.
126 See No. 101.
127 See No. 7.
128 See No. 2.
129 See No. 7.
130 See No. 7.

131 See No. 7.
132 See No. 7.
133 See No. 11a.
134a See No. 17.
134b See No. 33.
135 WINGS, L.: *Early childhood autism.* Oxford, Pergamon, 1976.
136 Ibid.
137 See No. 33.
138 See No. 67.
139 ENGELBRECHT, S. W. B.: *Akademiese prestasies van intellektueel bogemiddelde leerlinge.* Pretoria, Human Science Research Council, 1973 (Report No. MT-15).
140 Ibid.
141 ROBBERTSE, J. R.: *Die bydrae van enkele nie-intellektuele faktore tot die voorspelling van waarskynlike skoolprestasie met behulp van die Nuwe Suid-Afrikaanse Groeptoets met spesifieke verwysing na die rol van moderatorveranderlikes.* Potchefstroom, Potchefstroom's University for CHO, 1968 (D. Ed. dissertation).
142 See No. 95.
143 See No. 2.
144 See No. 11a.
145 VAN WYK, P. C.: *Riglyne vir die ontwerp van 'n rekenortodidaktiese vir senior primere leerlinge.* Pretoria, University of Pretoria, 1974 (M. Ed. thesis).
146 See No. 11c.
147 See No. 1.
148a See No. 67.
148b RITVO, E. R.: *Autism: diagnosis, current research and management.* New York, Spectrum, 1976.
149 See No. 19.
150 See No. 33.
151 See No. 67.
152a See No. 19.
152b See No. 40b.
153a See No. 67.
153b See No. 19.
154a See No. 19.
154b See No. 17.
154c See No. 33.

155 See No, 67.
156 See No. 19.