

THE EVALUATION OF INTELLECTUALITY (INTELLIGENCE) IN VOCATIONAL ORIENTATION*

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1. Clarification of concepts and statement of the problem

1.1 Introductory perspective

Despite the extensive research done since the beginning of the 20th Century with respect to intelligence, there still is great uncertainty about the concept of intelligence and its evaluation, in general. A historical perspective on intelligence shows that very early two schools of thought could be distinguished, namely, an Anglo-American, natural-science oriented school and a Western European, human-science one that still exist today.^(31: 33) To lay the foundation of these two schools of thought and their methods, the image or view of being-human espoused by several exponents of these schools is presented below:

1.1.1 The natural-science (philosophical-anthropological) approach to the evaluation of intelligence

According to this view, the only acceptable and reliable knowledge is that verified according to the methods of the natural sciences, and this puts a person in a position to disclose the essences of things, including human beings.^(4: 35-37)

Several forms of naturalism with their underlying philosophical anthropologies are distinguished among which is materialism. This form of naturalism views a person as matter, as a physical-chemical mechanism subject to mechanistic natural laws; even the human spirit is viewed only as a more subtle form of appearance of the material.^(4: 38) A physical natural science variation of naturalism views a person as a part and product of nature, as a physical organism in physical interaction with his environment and, as are all other objects of nature, a human being is determined and controlled by present, unchanging natural physical laws. Also,

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human conscious life and a person's entire culture are viewed as the result of a mechanistic, causal process of nature.^(4: 43-45) A biological naturalism, again, interprets (explains) a human being as a mere organism and a product of an evolutionary process^(27: 125), i.e., in accordance with biological laws. The naturalistic philosophical anthropology that lies at the foundation of contemporary psychological techniques of measurement holds, among others, the following unacceptable implications for a phenomenological-personological thinker's view of being human and, thus, for intelligence as a personal matter that must be evaluated in a personal way:

- (i) that a person is seen as governed by laws that are present in unchanging, mechanistic physical or biological laws of nature;
- (ii) that the human spirit is degraded to a by-product of mechanistic processes of nature or of the biological and, as a result, is not free and is effective only within the limits of physically or biologically determined laws^(8: 15)
- (iii) that being human is determined by biological laws or nature, and he does not have free will at his disposal and thus can be measured and quantified with the help of natural science research methods. The assumption is that a synthesis of the different psychometric results will give a complete picture of the person. The person is the sum total of all of his separate quantified or quantifiable characteristics;^(16: 28)
- (iv) that, seen from the perspective of intelligence, the above contains the assumption that human intellectual potentiality, as a magnitude or quantity, can be measured in isolation from the person as a totality, that reliable, constant results can be obtained and that, with reference to these results, certain inferences and predictions can be made regarding his educational level and choice of vocational level. This means that, with respect to the actualization of intellectual potential, the person has no ability for self-determination but that such potential is determined by the quality of the functioning of certain stimuli external to the person and that also are subject to the laws of nature. This

absolutizing, also by the quantification of intellectual performance, points to a serious objectification of the child as a person.^(34: 45)

1.1.2 The human science (philosophical-anthropological) approach to intelligence and its evaluation

According to Oberholzer^(28: 144), in its investigation of human beings, this approach takes a humanistic view and a human science approach. The point of departure is not from a particular metaphysical argument about being human but rather from being human as it in reality is (Husserl). Psychology as a human science studies human beings as spiritual beings, as members of a spiritual world who strive to actualize values.^(29: 308) Thus, such a psychology should penetrate to the spiritual core of a person as the origin of values^(17: 44; 25: 87) and direct itself to the whole, to the psyche as a totality. Use is made of the methods of “understanding” and in this way an attempt is made to understand the inner connections of psychic phenomena and grasp their meaningful relations with a system of values.^(29: 308; 25: 87)

In fact, the human science view of a person in all respects is a contrasting standpoint in comparison with the natural science approach, and it views a person as a unique, unrepeatable, essentially spiritual, self-determining and indivisible totality. Human potentialities only can be evaluated in light of the person’s total situatedness. Certain human abilities can be distinguished, but they cannot be penetrated and “measured” as independent qualities detached from the unity of a person. A person actualizes himself as a totality; thus, the actualization of intelligence is not just actualized by the intellect but by the person as totally situated.^(42: 21-22)

The most modern pedagogical view of the phenomenon of intelligence shows the following course of development:

- (i) The personalistic psychology of Stern that interpreted intelligence against the background of the total, indivisible person in which it resides and in accordance with the person’s dispositions, maturity, forming and interests.^(15: 124-127; 17: 451; 25: 88)

- (ii) the phenomenological approach, as does the personalistic, involves viewing a person as a totality and sees intelligence in the yet broader context of his relationships to the world.^(25: 311; 39: 10) The emphasis is on the way a person constitutes his world and, in particular, on the ways he uses his intelligence to do this.^(32: 224; 38: 53) A person does not passively face his world and adapt to it but he transforms it into a life world for himself. The total person is purposefully directed by his constituting involvement. This especially involves the quality with which he constitutes a world and his handling of the demands of life with which he is confronted;^(32: 244; 38: 53)
- (iii) by recognizing the central place of the spiritual core within the total context of a person, the pedagogic-personological approach has made an additional contribution to the above two approaches that is of cardinal importance.^(42: 13) As a primarily spiritual being, the person, or I, is a deciding being and, therefore, the core of human-being also is a being responsible and, consequently, a person also is a valuing being who must express value judgments and make value decisions.^(32: 207; 27: 116) A human being, as totality, is directed and activated from this personal core and, by implication, so also is his intelligence. Sonnekus states that, on the basis of his spiritual dimension, a person is the master of his intelligence and he can implement it or may not want to do so. In this way, the person is directly involved with his intelligence, and he also is responsible for its implementation, even transcendently addressed to responsibly implement it.^(25: 324) This view is pedagogically important since it is in the educative situation that the child's spiritual core is awakened and where he must be appealed to activate and actualize his intelligence in responsible ways.^(38: 55) The quality of the child's actualization of his intelligence thus will be directly related the educating to responsibility or to conscience forming he has experienced.^(8: 35; 38: 56; 33: 79; 32: 223)

1.2 Statement of the problem

A review of the literature reveals that no unanimity exists about precisely what intelligence essentially is; consequently, there is no generally accepted definition of it. This state of affairs can be traced back to the anthropological differences in opinion about who and what a human being essentially is (i.e., to the philosophical anthropology underlying the natural science and human science schools of thought discussed above).

In accordance with a natural science oriented philosophical anthropology, a person is part of nature, bound to natural laws and, thus, bio-physically determined. This means that, a person can be objectified in, divided into elements and studied in a natural science way; then he can be viewed as the sum total of his component parts. On this basis, psychometric tests have been constructed that allow human qualities to be quantified and to be compared “on the average”. This element-psychological approach, moreover, has the consequence that certain human qualities are placed higher than others and that, the intellectual is absolutized as the ultimate factor in human life. This goes even further; it is not only this human quality that is absolutized but also the numerical expression of it, as obtained by a test—as if the score is the final word. Thus, absolutizing the quantification leads to labeling the child. Following this is the practice of making critical future choices and recommendations regarding youth/children in terms of a few scores (mostly the IQ).

To clarify the charges against the natural science approach, a few comments are made regarding the problem of the “measurement” of intelligence with the aid of “tests”:

- (i) no intelligence medium (i.e., “test”) claims to evaluate all qualities of intelligence. A test only gives an indication of the quality of actualization of certain potentialities of a child as measured at a particular time, in a particular situation and with respect to previously selected aspects of life reality. Yet, in practice, such tests are used as if not only the intelligence but also the person can in this way be fully known;
- (ii) because there is no consensus of opinion about the essence of intelligence, different media evaluate

different things (e.g., the sub-media or “sub-tests” of individual and group media) and totally different numerical results can be obtained. This means that these different numerical results represent different qualities of intelligence and, thus, must be interpreted differently. Also, the demands placed on the pupil by group media are entirely different from those by individual media;^(42: 18-19)

- (iii) there are great differences in opinion about the stability of intelligence and intellectual performances. The current point of view is that intelligence mainly is hereditary and that the milieu doesn't exercise an influence worth mentioning.^(17: 123; 18: 52-53; 43: 34; 33: 75) However, a number of researchers indicate the contrary.^(39: 2: 25: 316; 15: 348) Kohnstamm^(15: 353-354) refers to the metastable nature of intelligence and Thorpe^(38: 64) shows that intelligence is very inconsistently related to physiological-neurological maturation, not to deny physical, emotional and formative influences. Thus, large differences can occur in the test results of a growing child on succeeding tests, and it is precisely such children who are continually subjected to “testing” and decisions are adopted for them in accordance with their “test results”;^(38: 63-64; 43: 111-121; 30: 122-124; 40: 80-84; 2: 16)
- (iv) where intelligence is increasingly seen in totality with the person, one must think about the degree to which personal qualities such as the affective, intentionality (giving meaning) and the physical co-define intellectual development and performance;^(42: 20)
- (v) although intellectual potential very likely is mainly hereditarily defined,^(3: 12; 43: 34; 5: 247) from the earliest years of childhood, the quality of its actualization is co-defined in no small degree by the quality of his experiences, opportunities, educating and general socio-economic milieu factors.^(43: 41; 18: 53; 21: 38; 39: 4; 23: 43; 26: 111) During evaluation these must be thoroughly taken into account because it is precisely these factors and not his hereditary potential that restrain or promote his self-actualization and co-define his future;

- (vi) Stander^(37: 29) refers to the intimate relationship between language availability and intelligence implementation and the degree to which intelligence media stress language power. The evaluation of intelligence usually ought to be paired with an investigation of the child's acquisition of language^(33: 83; 24: 62; 43: 35) because if the child has not adequately acquired language, a distorted image of his intelligence will be obtained;
- (vii) in practice it appears that often there is no correlation between a child's intelligence scores and his school achievement. Self-actualization with respect to school tasks is closely related to a youth's ways of giving meaning and is substantially co-defined by the youth's conscience forming, that is, his being educated to responsible self-actualization. This only can be fathomed pedagogically and is necessary for a valid evaluation of the child's actualization of his intelligence;^(33: 79, 83)
- (viii) no psychometric measuring instrument is infallible and there can be errors of administration, scoring and analyses of the data.

From the above it seems that there is the danger that, on the basis of a few intelligence scores, and in biased and unjustified ways, a position can be taken against the child such that the educative intervention that ought to be taken with respect to him doesn't occur or that decisions regarding his future are made that entirely are in conflict with his real potentialities. Only a penetration of the child's total situatedness can throw light on who and what the child essentially is, and it is only in this light that responsible support can be given to him. The human science methods try to satisfy this demand.

It already has been shown that, from a human science philosophical anthropology, a person is seen as an indivisible totality that cannot be broken up into elements and "measured". However, this totality view has had the consequence that the design of practical-applicable evaluation media has failed to materialize. As a result, the vocational counselor must use natural science designed measurement media and in such a way that he doesn't fall into a

biased consideration. The child's total situatedness and his potentiality to transcendence continually must be taken into account. This means an exploration with psychometric media only is part of a much broader pedagogically accountable investigation of the youth for evaluating the level of his self-actualization.^(42: 21-22)

2. Perspective on intelligence in light of viewing a person as an indivisible totality, as corporeality-in-the-world

2.1 Introduction

A historical perspective shows that over the centuries, though one-sided reflections, either the human mind (idealism) or the human body (naturalism, materialism) was placed too much in the foreground.^(13: 59) This indicates a separation of body and mind. The problem surrounding the body-mind relationship of being human was placed in the right perspective by existential-phenomenologically oriented thinkers with the view that the body-as-lived (corporeality) is the essential human body. This indicates an indivisible body-mind unity that is not objectifiable or reducible.^(13: 59-60) Also, it is meaningless to stress the body-mind unity of being human without bringing to light the particular boundness of this unity with the world. Heidegger overcame this apparent separation of person and world with his view of being human as Dasein,^(13: 63) a primarily indissoluble unity and boundness between person and world and fellow persons.^(25: 96)

This viewing of a person as body-mind unity-in-the-world is of fundamental importance for understanding intelligence; indeed, no accountable pronouncement about a human being or his personal characteristics or potentialities can be made without taking into account this fact. A person always is a totality-situated-in-the-world; a personal characteristic always is a characteristic within a totality, always part of an indissoluble unity, integrated with the whole; it is never autonomous and must never be absolutized. Also, personal potentialities never should be thought of apart from the person as a totality, and they are never actualized independent of this totality, namely, the body-mind-world-boundness.^(42: 25)

2.2 The recent psychological formulation of D. O. Hebb

Hebb distinguishes between “Intelligence A” and “Intelligence B”. According to him, “Intelligence A” is “an innate potential, a fully innate property that amounts to the possession of a good brain, and a good neural metabolism. It is hereditary and not influenced by experience. We can not observe it directly or measure it. It is the basic inborn capacity. In other words: intelligence is physiologically determined and amounts to the quality of brain cells, and the efficient manner in which these cells function.

“Intelligence B is one’s present mental efficiency. It is the ability which can be observed in one’s daily activities at school or at work, and which is sampled fairly effectively by intelligence tests. It is the product of heredity and environment.”^(5: 247)

The above formulation of intelligence by Hebb generally is accepted today in psychological practice and in schools and is a living example of a one-sided view of intelligence, seen especially from the perspective of a natural science oriented psychologist who stresses the physiological. Indeed, it cannot be denied that, with some qualifications, this formulation by Hebb carries a certain validity.

However, what cannot be accepted is the position that intelligence is physiologically determined and amounts to the inherited quality of the brain cells and the effectiveness of their functioning. This points to an absolutizing of the physiological and a slighting of the totality of the person as corporeality. This also means that intelligence and the mind are viewed as synonymous with a physiological-inherited quantity and that the implementation of intelligence is a purely intellectual affair (brain function) that has nothing to do with the rest of the person’s characteristics such as spirituality, responsibility, etc.; thus, it is viewed as something that can be isolated from the totality of the person in order to be studied and measured.

Moreover, Hebb mentions the influence of environmental factors in the actualization of intellectual potential, but he fails to emphasize the role of educating to the responsible actualization of his human potentialities. The aim of this exposition is to show that when there is mention of intelligence, it merely is a partial account when the concept is limited only to cognitive or brain functions. The intellect

does not function separately from the person as a totality. It always is the person as a totality who produces a performance, irrespective of the tasks with which he is confronted. In any performance, the intellect always is involved with the totality of the person, but so is each of the other characteristics of a person, to a greater or lesser degree, depending on which personal characteristics are most strongly appealed to by the particular tasks.

Thus, when an appeal is intellectual in nature, it is obvious that the cognitive potential will receive the strongest appeal; yet the performance that is produced (the response that is given) is never a performance of the intellect in isolation from the rest of the person as a totality. This is always a performance of an indivisible, total corporeality-in-the-world with respect to a particular task, an intellectual one in this example. If the task is more physical-bodily in nature, then it is obvious that the bodily will receive the strongest appeal; however, the performance produced is not by an isolated body but, once again, it is a performance of the person as a totality within which the bodily as well as the intellect, the human mind and the fact of human situatedness in the world from which the appeal emanates, all co-define the performance.^(42: 27)

2.3 The totality approach to intelligence

In contrast to the psychological (natural science) approach of Hebb, among others, from authors such as Sonnekus,^(33: 81) Joubert,⁽⁸⁾ Steenkamp⁽³⁸⁾ Langeveld^(18: 56) and others, we acquire a more human science approach to a person and his intelligence, where intelligence is viewed in terms of the totality of a person. Sonnekus^(25: 311) writes, “Within the totality of a person, intelligence is a power to break-through the surrounding world of the person who, in his involvement in it always is confronted with new situations.” Joubert⁽¹¹⁾ adds, “Intelligence is the level or quality of the actualization of one’s total personal potentialities or the level and quality of the existence of the person within certain situations.” Langeveld^(18: 229; 8: 33) defines intelligence as the way in which a person aims for a goals in his life and plans means for achieving them.

“Power” and “personal potentialities” imply the presence and availability of certain givens as possibilities. This power or these potentialities, however, are latent and only are significant if they are

actualized, that is, when the “surrounding world” is broken-through or the actualization of a possibility occurs. Thus, there is mention of authentic intelligence if the intellectual potentialities also are actualized.^(42: 28) From this it follows that two basic distinctions are made with respect to intelligence:

- (i) the given potentialities, what a person has at his disposal, what he possibly can achieve—the optimally achievable;
- (ii) the level of actualization of the potentialities or givens, thus the achieved part of the achievable. Joubert speaks of the quality of the actualization of one’s personal potentialities.^(9: 56)

Also, with reference to the above, intelligence will not only be seen in its boundness with intellectual potential but in its relation to the totality of a person as indivisible body-mind unity in his boundness with the world.

The boundness of intelligence to the cognitive will not be underestimated, on the contrary; however, there must be objection to the current misunderstanding of the place of the other personal abilities and the slighting of their interdependence in the current evaluation of intelligence—as though the intellectual is an isolated quantity that functions divorced from other personal qualities. The actualization of intellectual potential, for example, as this is expressed in intellectual performances and that currently is seen as synonymous with a “good intelligence”, is not exclusively a performance provided by the intellect but a performance provided by a person as an indivisible unity, that is, a performance in which the totality of the person is involved as a multiplicity-in-unity, i.e., with the co-involvement of all of his distinguishable and inseparable, interdependent, meaningfully cohering, complicated, integrated qualities.

The ultimate consequences of this argument mean that intelligence always and only is on the level of the actualization of a person as a totality, irrespective of the tasks with which he is confronted and irrespective of the personal potential that is strongly called to the foreground by a specific task. Moreover, and by implication, this

also means that each distinguishable personal potential also can be distinguished as an intellectual potentiality.^(42: 29-30)

2.4 The task with respect to evaluating intelligence and its boundness to a person as a totality

When intelligence is described in terms of the totality of a person and is seen as the quality or level of the self-actualization of a particular talent or talents, the core concern that revolves around this is that a human being in his totality, in his total being a person, must be seen and evaluated, i.e., as a body-mind unity-in-the-world.

From a vocational orientation perspective, differentiations of the person especially are made with respect to the following aspects:

2.4.1 Bodiliness

Bodiliness points to the hereditary givens with which a person enters the world and which are the biological basis and precondition for bringing about his existence and self-actualization. The concern first is with an objective view of the human body, the completeness and adequacy of the functioning of body organs, the senses, the limbs and also the appearance of the body. It is obvious that bodily incompleteness or inadequate bodily functioning will restrain or impede the human inhabitation of the world directly as a consequence of certain inadequacies and indirectly as a consequence of affective lived-experiences.^(42: 31-32)

2.4.2 Spirituality

Where bodiliness points to the biological basis for inhabiting the world and is the biological precondition for actualization, the spiritual points to the actualization of personal potentialities. Bodily actualization of the person as a totality (body-mind unity-in-the-world) is recognizable in human existence, in his intentionality and in his answers to his being addressed (appealed to). Now, whoever will make pronouncements about a person's intelligence in light of the foregoing views has the task of fathoming the person as an existential, intentional, addressed (appealed to) and answering being.

2.4.2.1 The person as an existential being

Above, intelligence was characterized as the quality of a person's self-actualization. Synonymous with this, intelligence is formulated as the quality of existence, i.e., the quality of stepping out of oneself and entering the world, communicating, conducting dialogue, experiencing, learning, lived-experiencing, having part, taking part and giving part, making oneself available, planning, being by and with others, being involved and concerned with and about things and one's God. The level and way in which this is done—low, average or high—is the quality of his self-actualization or, in other words, of his intelligence broadly viewed. Thus, by implication, intelligence also can be formulated as “the quality of inhabiting or establishing a world.”

Everything by virtue of which a person differentiates himself must be viewed as ways of existing and this means that in evaluating his intelligence, it ought to be penetrated as broadly as possible with regard to all distinguishable ways of existence.

This means that in addition to the already mentioned ways of being, among others, the following existential ways of being must be evaluated as essences of intelligence, namely, a person as sensing, perceiving, fantasizing, imagining, remembering, learning, thinking, willing, lived-experiencing, experiencing, knowing, striving, valuing, norming, being a believer, etc. to see if these restrain or promote his inhabiting a world, his existence, his self-actualization in the world and the actualization of his personal potentialities, e.g., the bodily, the intellectual, the spiritual, etc. ^(42: 332-33)

2.4.2.2 The person as intentional being

Intentionality refers to a person's allocation of values and giving and sensing meaning. It is obvious that a person will promote and perpetuate something to the degree that he attributes meaning to it, values it and that it makes sense to him. Briefly, this amounts to the fact that a high potential is no guarantee that a person will actualize it if he does not feel that it is meaningful for him to do so. The meaningfulness of one's potentialities and existence are co-determiners of the quality of his actualized intelligence. ^(42: 33-34)

2.4.2.3 The person as addressed (appealed to)

Because of his openness, a person is receptive to an appeal by things and persons (and also God) to which he must answer. The question now is what is the quality of this response (as self-actualization)? Progressive responding assumes progressive self-actualization. To be able to respond meaningfully an elevation in level of self-actualization must appear. In this sense, his answer is the way and quality of the actualization of his intelligence as a meaningful utilization of it.⁽¹¹⁾

Before pronouncements can be made regarding the quality of responding, as actualizing intelligence, the question must be asked about what restrains this self-actualization (actualizing intelligence). Internal restraints such as inadequate bodily functioning or bodily incompleteness and external restraints in family and school upbringing (educating) (e.g., insecurity, inadequate educating, the educative level of the environment, etc.) can be distinguished. A person's total situatedness defines the way and quality of his self-actualization of his being appealed to.^(9: 53)

2.4.2.4 The person as an answering being

To be someone who can be appealed to assumes a being who is answerable or responsible. The quality of response is evident in a person's level of accountability and responsibility. A responsible answer is one that corresponds with a person's unique potential as corporeality (as potential-in-totality). In this sense, the actualization of intelligence is an accountable and responsible answer to one's being appealed to. The quality of response is co-defined by effort, venturing, assuming responsibility, understanding, hoping, thankfulness, planning, etc. In evaluating a person's intelligence, these ways of being also should be evaluated.^(9: 53)

3. A vocational orientation perspective on actualizing intellectual potential

3.1 Introductory perspective

In order to understand what already was said about intelligence, but now from a vocational orientation perspective, insight is required into the kind of vocational choice orientation, as an accountable assisting and supporting, that needs to be given to each youth until

he has, on the basis of accurate self-orientation, acquired insight and taken a position in light of his own situation of vocational choice such that he is able to arrive at a responsible vocational choice, as a preliminary stage to vocational entry and continued vocational orientation as a characteristic of vocational maturity.^(14: 20; 16:4) Giving support for self-orientation also directly involves an orientation with respect to intelligence.

Self-orientation only is possible by the meaningful actualization of the orientation sessions by the vocational counselor and the youth. It is the responsibility of the vocational counselor to bring the youth to an authentic image of the vocational choices before he can orient him. This means that the vocational counselor must orient himself with respect to the youth before he can guide him to self-orientation. In essence, this involves a progressive appeal to the youth to implement his personal aptitudes optimally in his vocational choice. This requires the personal initiative from the youth to meaningfully respond to this appeal.^(10: 7; 14: 21)

This mutual responsibility of both the vocational counselor and the youth is a precondition for orientation. In essence, among others, self-orientation assumes self-exploration, self-discovery, self-evaluation, self-understanding, self-acceptance and self-actualization, also regarding his own intelligence.^(10: 3)

3.2 A vocational orientation perspective on actualizing intellectual potentialities

Joubert⁽¹¹⁾ shows that the actualization of intelligence only is possible by way of an adequate actualization of one's own person as a totality. As a precondition, adequate self-actualization requires knowledge about one's own intelligence as well as the life reality or life situation in which intelligence can be actualized. This knowledge is possible by a meaningful **orientation** with respect to one's own intellectual potentialities as well as the opportunities that life reality offers. In a vocational orientation perspective, the significance of this self-orientation regarding one's own intellectual potentialities and the relevant vocational opportunities⁽¹¹⁾ is that the eventual outcome will be an accountable vocational choice.

In light of the above pronouncements regarding intellectual potential as the level of existence, this means the ways of self-actualization are co-defined by the actualization of all pedagogical essences (i.e., fundamental pedagogical, psychopedagogical, didactic pedagogical, sociopedagogical, etc. essences).^(42: 41)

From a vocational orientation perspective, this amounts to the fact that orientation regarding one's own level of intelligence is possible by exploring, discovering, evaluating, understanding, accepting and actualizing it and that, in this light, the vocational world must be searched for opportunities to actualize these modes of orientation. Once again, this search essentially means an orientation (exploring, discovering, etc.) to vocational opportunities that are in accord with one's level of intelligence.^(42: 41)

The actualization of a certain essential of self-orientation (e.g., exploring) and a progression to the others in the occurrence of self-orientation indicates an increasingly higher qualitative level of self-actualization that can be viewed as an elevation in the level of intelligence in self-orientation. This occurrence of actualization on a qualitatively higher level has as a precondition that certain meanings be actualized^(1: 27-29) within each essence of orientation before the actualization of a subsequent essence of orientation takes place. From the perspective of intelligence, this self-orientation is an event that includes one's own existentiality, intentionality, being appealed to and responsiveness and all of this co-defines the self-actualization of one's own aptitudes such as bodiliness, intellectuality, sociability, interests, etc.^(42: 45)

Joubert^(7: 5) indicates that for an existential being to be in a situation of vocational orientation requires his own initiative to enter this situation, to communicate within it, to become acquainted with it and to arrive at meaningful decisions. Regarding this dialogue with his vocational future into which the youth enters as an existential being, he manifests and differentiates himself in will, hope, interest, striving, insight, sociability, initiative, norms, independence, leadership, and in several other existential ways of being that might be of importance from a vocational orientation perspective and for his future vocational pursuit.

Modes of being such as lived-experiencing, knowing, willing, behaving, sensing, attending, perceiving, imagining, fantasizing, thinking, remembering and observing all are existential modes of being a person, i.e., ways in which a person enters the world (also the vocational world), conducts dialogues, communicates, etc. Therefore, the modes of experiencing, lived-experiencing, willing, learning, etc. are important in evaluating intelligence.^(33; 35; 36; 41) In vocational orientation, the concern is with the modes and quality of willing, lived-experiencing, knowing and behaving that then also co-define the choice of a vocation. In the exploration of the youth's intelligence, the above modes must be evaluated.

Viewing vocational choice from the perspective of intelligence, it is essential that these modes of manifestation of the youth (i.e., lived-experiencing, willing, etc.) be fathomed and co-evaluated and that the youth reach a self-orientation in connection with them and the vocational-choice implications they might have.^(42: 46)

To be an intentional being in a situation of vocational orientation means that the youth must give meaning to this situation in his own way.^(9: 52) Without the actualization of intentionality, i.e., an awareness of and a striving for meaning, the adequate actualization of intelligence, vocational orientation and vocational choice are not possible.^(8: 82)

Responsible vocational choice, as a response to one's being appealed to, requires a choice within the limits of one's potentialities, among others, one's intellectual potential. As evidenced by his vocational choice, the youth must give a meaningful response to his being appealed to with real activity, i.e., meaningful, directed activity that will lead to the actualization of his vocational choice. This means that, in vocational orientation and choice, he must actualize his intelligence on the highest possible level in order to answer his being vocationally appealed to on the highest possible level.^(42: 48; 9: 53)

3.3 Personal abilities as intellectual equipment from the perspective of vocational choice

The levels of existence, intentionality and responsible self-actualization, as actualization of intelligence, co-define the level of actualization of one's personal abilities and are pre-conditions for

an accountable vocational orientation, vocational choice and vocational practice.

Since a differentiated vocational world presents differentiated personal demands, it is necessary to attend to particular personal potentialities as equipment for particular vocations. Personal potentialities, as vocational equipment, are differentiated are, among others, one's bodiliness, intellectuality, interests and aptitudes. These personal potentialities, in addition to the essentials of the person, co-define the vocational choice that is going to be made. The meaning of personal potentialities, in combination and individually, changes for each person according to his particular endowments and ways of giving meaning. The person as a unity, totality and continuity, however, never must be divided and particular personal aptitudes must not be considered in a one-sided way. From the perspective of vocational orientation and choice, the person always must be viewed as a multiplicity-in-unity with his own ways of giving meaning and as not being reducible to a few ways of appearing.^(9: 53-55; 8: 25-28; 13: 60)

3.3.1 Bodily actualization from the perspective of intelligence

The human body is the biological basis and precondition for the performance of work. Work is a bodily activity for which the body is equipped with certain senses, limbs, organs, etc.^(9: 54) At the basis of the proper execution of work lies the adequate functioning of all bodily organs. All persons do not have the same physical nature at their disposal, and the bodily demands that occupations place on their practitioners show great variation. If the biological body is inadequately equipped (incomplete) or not functioning adequately physiologically, the proper actualization of intelligence also cannot be accomplished (e.g., by the blind, weal-sighted, brain-damaged or sickly child).^(33: 84; 13: 33; 22:4)

3.3.2 The actualization of intellectuality from the perspective of intelligence

Intellectual potential, just as bodily potential, must be seen as a meaningfully coherent totality in corporality, although it can be brought to the fore as a quality that cannot be sub-divided.^(9: 55) One must guard against taking intellectuality, which co-defines

intelligence (in broad perspective), exclusively as rooted in intelligence and in so doing absolutize it.^(9: 55; 20: 118-119) Phenomena such as determination, attitude toward life, intentionality, interest, vital energy, imagination, memory, attention, attentiveness and many others influence the effective actualization of intellectual potential.^(1: 229; 9: 55) To use with insight one's perseverance, thinking, perceiving, imagining, interests and lived-experiencing and thereby to mobilize, implement and orchestrate all of one's potentialities, is viewed as self-actualization on a high intellectual level.^(9: 55; 6: 43)

Vocational classifications merely with respect to a number of quantitative scores are not accountable because the youth then is not viewed in his total situatedness. In exploring vocational choice, the intellectual level ought to be evaluated with a variety of media and a qualitative penetration of this level also must be made.^(9: 56; 34: 53-55; 39; 38: 109) Vocational choice advice merely in light of a possibly reliable intellectual assessment also is not accountable since this is not an indication of intelligence in the broader sense. This is of little value since it is not evaluated in a meaningfully connected way with a number of other distinguishable qualities of the person.^(9: 56)

3.3.3 The actualization of sociability from the perspective of intelligence

As a fellow inhabitant of the world the youth must learn to live in an intelligent way with fellow persons, also in the vocational world as a slice of the larger reality and he must be educated for this. Sociability and co-responsibility also must be shown in work, and his vocational choice and practice ought to give evidence that he is a bearer of sociability, i.e., of life obligations that must be placed above self-interest. Langeveld says the highest form of intelligence is the ability to establish, promote and maintain good human relationships. In order to actualize his sociability functions properly, also in work, it is extremely important that thought be given to the youth's sociability-equipment (availability) regarding healthy, intelligent human relationships.^(9: 57; 7: 6; 42: 51-52) In a vocational orientation perspective, the intelligent actualization of sociability indicates a disposition as a readiness for providing service to fellow persons, society and the state through work, assistance, good disposition, demonstration of respect, etc.^(7: 6)

3.3.4 The actualization of interests from the perspective of intelligence

Interest in a vocational choice is described as a person's identification with relevant vocational opportunities.^(9: 56; 8: 43) Such identification occurs in the light of the person's particular ways of giving meaning.^(9: 57) Because the youth's interests are initiated by a striving for meaning, and because life values and obligations are placed first, the choice and practice of a vocation are directed to providing service. Then interest proceeds to dedication without the expectation of pleasurable experiences,^(8: 43) and there is then mention of authentic interest. When a striving for pleasure, power and the material initiate interest, self-interest is placed first and the interest is not authentic or sociable.^(9: 57)

Langeveld sees interest as an aspect of the person that forms a unity with intelligence.^(19: 238-239; 8: 43) In vocational orientation, it is important to heed that there are clear relations among interests, intelligence and vocational choice since interests plus abilities co-define successful vocational practice.^(16: 45)

In addition to the above personal abilities, the adequacy of the youth's actualization of his psychic life (i.e., his experiencing, lived-experiencing, willing, knowing and behaving) must be taken into account which, in Joubert's broad formulation, can be shown to be modes of existence. And, as essences of intelligence, they are indispensable preconditions for adequately actualizing intelligence as self-actualization. The adequate actualization of the psychic life has as a precondition the adequate actualization of the fundamental pedagogic structures, psychopedagogic categories (learning and becoming) as well as the sociopedagogic and didactic pedagogic categories. Thus, it is necessary that the youth be fathomed with respect to the actualization of his psychic life and be evaluated with respect to the reality of vocational orientation if the evaluation of his intelligence is to be an evaluation of the quality of self-actualization where the aim is a responsible vocational orientation.^(42: 59)

4. The evaluation of intelligence as evidence of the level of actualization of personal abilities

The foregoing is an attempt to show the youth as a person in a totality perspective with the aim of establishing an accountable program of diagnosis for vocational choice. Moreover, it is necessary to verify the extent to which a differentiated program is possible for arriving at the greatest feasible totality image of being a person. A further question concerns the evaluation media to be used in this diagnosis. Available media for evaluating a person are, among others, intelligence scales, projective media, performance scales, aptitude media, interest-, self-evaluation- and occupational orientation-checklists, checklists to explore a youth's historicity, and the exploratory conversation.

Once again, the concern here is not with the evaluation of a few personal characteristics but rather with a comprehensive evaluation of the person in order to acquire the most reliable image possible of the person as an existential potentiality-in-totality. In essence, the concern is with the evaluation of the level of self-actualization of personal abilities as these are co-defined by his intellectual potentiality and his total situatedness, including education and instruction. This implies an evaluation of the level and ways of self-actualization in the world of vocational choice, i.e., of the person's level and modes of stepping out of himself, entering reality, dialoging and communicating with things, persons and himself regarding vocational-orientation, -choice and -practice. This involves not only an evaluation of the youth's level of self-actualization by the counselor but also self-orientation regarding the youth's unique potential for such actualization. This requires that the youth enters into a vocational orientation-pedagogic-exploratory situation in which intuitive, quantitative and qualitative modes of evaluation are used and psychometric as well as pedagogic means and criteria, that supplement each other, are implemented in order to prevent the youth from being delivered to the quantitative "test results".^(42: 63-65)

It was shown that to acquire a reliable image of a youth's vocational aptitudes and the quality of their actualization requires that a variety of evaluative media and modes be used. The level of reliability of evaluation can be increased by comparing the results of the media with each other. For example, when the level of intellectual aptitude is evaluated regarding vocational choice, all

results obtained by means of various media are compared and value is attached only to congruent results. Reliable evaluation from a few media is not possible, especially because the possibility of comparison is eliminated.^(42: 77)

As examples of the ways of assessment, the evaluation of intellectuality, of sociability and of interest are schematically represented below in schemes A, B and C. The evaluation of the total level of actualization by comparing a variety of exploratory results is represented as a triad in scheme D.^(42: 84-87)

SCHEME A
Evaluating the actualization of the INTELLECT by
comparing a variety of exploratory results

HISTORICITY

1. Conversation with parents and others. 2. Conversation with the individual of concern regarding, e.g.:
 - (i) socio-economic background;
 - (ii) bodiliness: brain-injury, laterality, defects;
 - (iii) language, speech, learning: language acquisition, deviations, spelling, arithmetic, learning problems;
 - (iv) pedagogic relationships: trust, understanding, authority;
 - (v) pedagogic sequence;
 - (vi) lived-experiencing of (i) – ((v). Opinion of educators: Intentionality, concentration, normativity.
2. Psychometric results: general progress, subject matter achievements, problems. Remarks (observations) about: pedagogic services, medical, etc.

PEDAGOGIC OBSERVATION

1. Quality of intelligence. 2. Bodily quality. 3. Personal quality.
4. Lived-experiencing.

For example: 1. alertness, concentration, language ability, memory, intellectual ability, methodical. 2. Sensory: completeness, functioning. 3. Intentionality: will, persistence, interest, communicative, apathy. 4. Bodily experiences, experience of intellectuality, tension.

INTELLECTUAL MEDIA

1. Individual test. 2. Group test. 3. Senior Aptitude Test.
4. Scholastic battery.

For example:

1. **Quantitative:**
 - (i) verbal IQ;
 - (ii) non-verbal IQ;
 - (iii) verbal, non-verbal relationship.

2. Qualitative:

- (i) intellectual level;
- (ii) intellectual structure analysis;
- (iii) outstanding abilities;
- (iv) characterological abilities;
- (v) language ability;
- (vi) arithmetic ability;
- (vii) memory;
- (viii) affectivity;
- (ix) perception;
- (x) ability to attend;
- (xi) intellectual tempo (approximately, as from the individual test).

PERFORMANCE MEDIA

1. Wiggly blocks.
2. "Passalong" medium.

For example:

Quantitative: A-B-C-D ratings. Quotient of practical ability.

Qualitative: 1 + 2

- (i) structure and attack;
- (ii) work relationship;
- (iii) work level;
- (iv) mechanical plan;
- (v) spatial visualization.

PROJECTIVE MEDIA

1. Zullinger Table Test .
2. Person drawing.
3. Wartegg.
4. Incomplete sentences.

For example:

1.
 - (i) conceptual and abstract ability;
 - (ii) practical common sense;
 - (iii) accurate perception;
 - (iv) creative ability (arts);
 - (v) independent thinking and originality;
 - (vi) contact ability.

2.
 - (i) bodily disturbances: brain damage, epilepsy, headache;
 - (ii) emotional disturbances: tension, anxiety, instability;

- (iii) withdrawing.
- 3. Language ability.
Lived experience of: bodiliness, intellectuality.

INTEREST MEDIA

1. C.V.
2. 19 Field.

For example:

- (i) shows objectivity regarding interest potentialities;
- (ii) shows interest profile that synthesizes interest potentialities.

SCHEME B

Evaluating the actualization of SOCIABILITY by comparing a variety of exploratory results

HISTORICITY

Conversation with parents and others as well as the individual regarding:

1.
 - (i) bodiliness and the experience of it;
 - (ii) language ability, speech, communication skills;
 - (iii) pedagogic relationships (trust, understanding, authority);
 - (iv) pedagogic sequence;
 - (v) human relationships arising from (i) – (iv). Opinions of educators and others regarding sociability and human relationships, friendliness, emotionality.
2. Psychometric results:
 - (i) inclination toward verbal;
 - (ii) inclination toward social;
 - (iii) inclination toward fellow persons, etc.

PEDAGOGIC OBSERVATION

1. Quality of intelligence.
2. Bodily quality.
3. Personal quality.
3. Lived-experiencing.

For example: 1. **Language proficiency**, memory, **social aptitude**. 2. **Bodily appearance**: attractive; **senses**: complete, functioning; **defects**: short, tall, fat, lean, pimples, freckles, hair, etc. 3. **Communication**: friendly, helpful, sympathetic, interesting, emotionality; lived-experiencing: bodily, social skills.

INTELLECTUAL MEDIA

1. Individual test. 2. Group test. 3. Senior Aptitude Test.
4. Scholastic battery.

For example: 1 - 4 **Quantitative**: inclined to higher achievement on verbal media. **Qualitative**: 1 + 2 Language ability, memory, affectivity. 3. Language ability, memory, memory for names and faces. 4. Achievement in: languages, history, geography. 1 - 4 Projections and expressions.

PERFORMANCE MEDIA

1. Wiggly blocks. 2. "Passalong" medium.

For example:

Sociability:

- (i) good ability to implement the affective;
- (ii) milieu conflicts;
- (iii) ability to empathize and assimilate;
- (iv) shyness—inability to communicate.

Affectivity and temperament

- (i) undirected;
- (ii) uncontrolled emotionality;
- (iii) tension;
- (iv) ability to control feelings;
- (v) experience type;
- (vi) aggressiveness;
- (vii) unfriendly;
- (viii) egocentric;
- (ix) moodiness'
- (x) excitability;
- (xi) contrariness;
- (xii) inferior worth.

INTEREST MEDIA

1. C. V. 2. 19 Field.

For example: indicates a profile synthesizing sociability potentialities in interests—i.e., objectivity regarding one's own sociability potentialities.

SCHEME C

Evaluating the actualization of INTERESTS by comparing a variety of exploratory results

HISTORICITY

Conversation with parents and others as well as the individual regarding:

1. (i) socio-economic milieu: parental occupation, family traditions, vocational practice in milieu.
(ii) intellectual, economic, practical-technical, social, scientific, mechanical interests, etc. Opinions of educators and others with respect to (ii).
2. Psychometric results:
 - (i) Thurstone;
 - (ii) C. V.;
 - (iii) 19 Field. Connections among school achievement, ability and interests.

PEDAGOGIC OBSERVATION

1. Intellectual, 2. Bodily. 3. Sociability. 4. Art.

Preference for:

- (i) intellectual activity: abstractions, concepts, language, philosophy, etc.;
- (ii) bodily activity: manipulation of objects, activities requiring eye-hand coordination, sports;
- (iii) social activity: interaction with persons, providing services;

- (iv) artistic, artistic interests, etc.

INTELLECTUAL MEDIA

1. Individual test. 2. Aptitude tests. 3. Scholastic battery.

For example:

- (i) youth shows a greater interest in certain sub-media than in others;
- (ii) does the youth state an interest in the types of sub-media in which he achieves well?

PERFORMANCE MEDIA

1. Wiggly blocks. 2. "Passalong" medium.

For example:

- (i) unpreparedness;
- (ii) interest in material and activity or rejection of task;
- (iii) relation between achievement and interest.

PROJECTIVE MEDIA

1. Zullinger. 2. Person drawings. 3. Wartegg, 4. Incomplete sentences.

For example:

1. (i) content can indicate interest—e.g., anatomical interpretations related to medicine, anatomy, psychological interests.
(ii) plant interpretations indicate interest in nature.
2. Youths usually give a direct indication that they are interested in drawing and have such a talent.
3. As in 2—what the youth draws indicates tendencies of interests.
4. Youth often give a direct indication of their interests.

INTEREST MEDIA

1. C.V. 2. 19 Field.

For example:

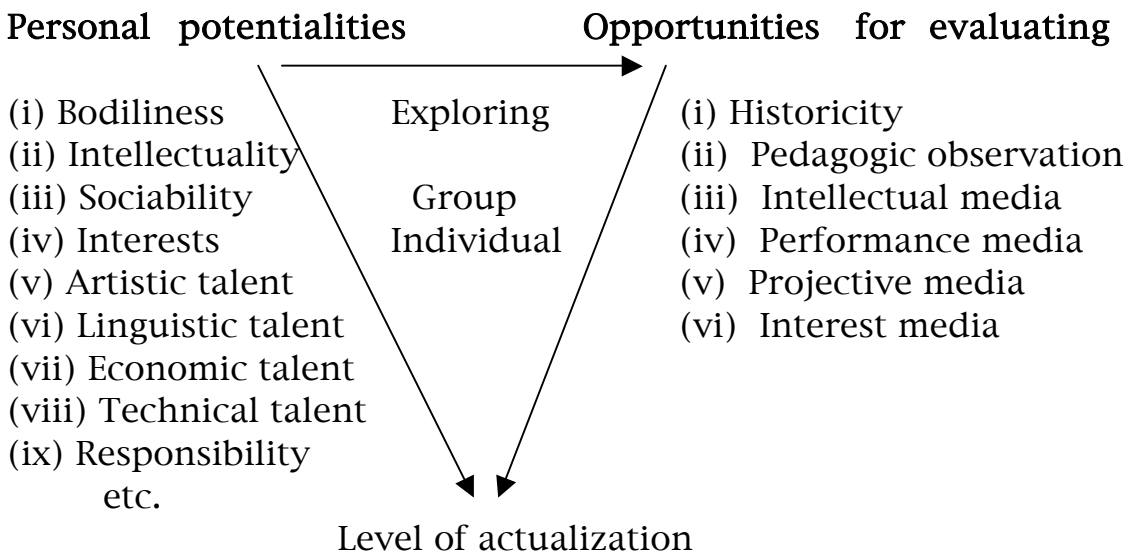
- (i) people;
- (ii) things;
- (iii) human sciences;

- (iv) natural sciences;
- (v) mathematics;
- (vi) arts;
- (vii) practical-technical;
- (viii) nature;
- (ix) law;
- (x) physical activity (sports).

Indicates objectivity regarding one's own personal interest potentialities. Syntheses of potentialities and interests.

SCHEME D

Evaluating the total level of actualization by comparing a variety of exploratory results



The above is a triadic indication of how an as reliable as possible self-actualization image (intelligence image) of a youth's total quality of self-actualization can be acquired by means of implementing and comparing a variety of pedagogic and psychometric evaluative media.

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