Review Article DOI: 10.36959/447/346

The Theory of Positive Disintegration as Future-Oriented Psychology

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Abstract

This article presents Dabrowski's Theory of Positive Disintegration (TPD) as future-oriented psychology. According to Dabrowski, positive disintegration is characterized by a transition from narrow to a broad understanding of reality, involving the capacity for reflecting on one's past history (retrospection) and for envisaging future of one's personal growth (prospection). The article analyzes the TPD through the perspective of subjective time (mental time travel) and shows that each level of TPD expresses different awareness of subjective time and the developmental dynamisms are grounded in strong anticipation.

Keywords

Dabrowski, The theory of positive disintegration, Future, Retrospection, Prospection, Mental time travel, Anticipation

Introduction

In one of my articles, I described the Theory of Positive Disintegration (TPD) as a "revolutionary" theory of human development [1]. The TPD describes and explains mechanisms of human development with a great emphasis on emotional growth. Kazimierz Dabrowski (1902-1980), a Polish psychiatrist and psychologist, developed this theory over a lifetime of clinical and academic work [2-11]. Over the past forty years, TPD has been successfully applied to the field of gifted education and the study of gifted development [12-20]. However, TPD is still relatively unknown as a theory of human development.

First of all, Dabrowski's ideas converge with contemporary theories of personality development based on the concept of *self-organization* [21-28]. Dabrowski stresses the importance of "emotional turbulence" in the transition from the lower to the higher levels of psychological development. He states that nervousness and psychoneurotic symptoms (anxiety, obsessions, depression) are necessary for human growth and are the signs of the beginning of an advancing process of positive transformation [4,7,9].

Secondly, the TPD refers to psychological *multilevel* development and depends on individual's *developmental potential*- a complex concept containing three factors, special abilities and talents, and five forms of psychic over-excitability [4,7]. In addition to the first factor representing innate constitutional and biological potentialities of the organism (nature) and the second factor representing all social environmental influences (nurture), Dabrowski introduced *the third factor* that represents the autonomous forces of self-directed de-

velopment and conscious choices and decision in relation to personal growth [9].

Next, according to Dabrowski [7], each *level* of positive disintegration represents a qualitatively distinct, relatively stable, and coherent structure. In dynamic system terminology can be described by an *attractor* state, assuming that the complex system self-organizes into a few modes of behavior rather than remain unconnected collections of features [29,30]. Therefore, the process of positive disintegration has been modeled by a sequence of attractors (levels) as a control parameter (a developmental potential) changes [31-33].

Finally, based on the observation of creative and gifted individuals, Dabrowski [4,7] introduced the psychic over excitability (OE) that defines a higher than average responsiveness of the nervous system. Over excitability in gifted and creative people explains the intensity of their daily life experiences. There are five forms of psychic over-excitability: Psychomotor, sensual, imaginational, emotional, and intellectual. They undergo extensive differentiation when human beings develop. Intellectual, imaginational, and emotional over-excitabilities play essential role in the formation of developmental dynamisms, while sensual and psychomotor

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Accepted: July 13, 2020

Published online: July 15, 2020

Citation: Laycraft KC (2020) The Theory of Positive Disintegration as Future-Oriented Psychology. Ann Cogn Sci 4(1):118-126

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over-excitabilities play only a supporting role in their development [7].

The concept of developmental dynamisms is one of the most important concepts of the TPD [5,7,9-11]. They are complex, dynamic, and higher-order arrangements that through them, the changes in human behaviour and growth can be observed [31-34]. Developmental dynamisms are similar to emotional interpretations (EIs) by Lewis [23-26], affective-cognitive structures by Izard [21,22,35], secondary and tertiary emotions by Plutchik [36] and TenHouten [37], and quantum of intellect-emotion by Matte-Blanco [38]. These emotional patterns increase in number and complexity with development and provide flexibility and creativity to deal with challenging problems.

In this article, I analyze the TPD through the perspective of subjective time (mental time travel) and show that each level of TPD expresses different awareness of subjective time. I also propose that the TPD can be understood as a future-oriented theory of human development and developmental dynamisms are grounded in strong anticipation.

Mental Time Travel in Future Orientation Processes

Mental Time Travel (MTT) allows us to imagine events at different points along the continuum between past and future. It is our ability to recall, in a first-person manner, past episodes and to simulate possible future scenarios in which we are personally engaged [39,40]. This kind of recall is called *episodic autobiographical memory* that refers to personal events recollected in the context of a particular time and place (what, where, and when) and with some reference to oneself as a participant in the episode [41-43].

The primary role of episodic memory is to provide details needed to construct and imagine possible futures. But often, the episodic details are intertwined with the semantic information [44,45]. Since the future is not an exact repetition of the past, simulation of future episodes requires a flexible system that can extract and recombine elements of the past experiences into representations of events that have not occurred. So, episodic memory appears to be fundamentally constructive process. Recent cognitive and neuroimaging studies have demonstrated that retrieving past events and simulating future rely on common processes and engage common neural regions [45-48].

Future orientation

Mental time travel provides also increased behavioral *flexibility* to act in the present in order to create possible future. This future orientation (FO) is a complex way of subjectively organizing one's cognitions, evaluations, and behavior. It provides the grounds for setting goals, planning, exploring options and making commitments, and consequently guides the human development. It requires several sophisticated cognitive abilities such as imagination, self-awareness, reflection, daydreaming, and anticipation.

Imagination is an aspect of *intentionality* that is a value-driven selection directed towards some future goal. It in-

cludes the self, emotions, and the anticipation of the future [49]. Walter Freeman [50,51] redefined and expanded intentionality by including imagination, memory, motivation, and perception. Therefore, intentionality is "the means by which the organism creates meaning by action in the world and assimilating that action into the self" (Modell, p. 99) [49]. Aaron Ben-Ze'ev [52] sees also imagination as an intentional activity. People engage in such activities because they desire to fulfill some future plans. By imagining future possibilities they can act more effectively in their world. Imagination helps them to understand, predict, and act on their environment. Ben-Ze'ev also argues that, when imagination gives intentional content to emotions, a whole new range of emotions become possible. He writes, "The ability to imagine others as having intentional states comparable to our own, and the ability to imagine ourselves as having intentional states different from our current one, are crucial for the development of complex social relationships and for a moral standpoint" (Ben-Ze'ev, p. 107) [52].

Self-awareness, recognition of oneself as a unique person implies both self-reflection and consciousness of self in a relation to others [49]. In other words, self-awareness is the capacity to represent the self abstractly [53]. Therefore, self-awareness refers to capacity of becoming the object of one's own attention. In this state one actively identifies, processes, and stores information about the self [54]. Self-awareness represents a complex multidimensional and multilevel phenomenon [7]. One can focus on one's past and future, emotions, thoughts, goals, attitudes, behaviors, intentions, choices, and so on. Self-awareness also involves a sense of continuity across time. Awareness and self-awareness develop through meditation and contemplation [7]. The highest level of consciousness is meta-self-awareness -being aware that one is self-aware [55]. Self-awareness has also important implication for self-regulation, where self-regulation involves a self-evaluation process itself dependent upon self-awareness [53,56,57].

Reflection is the capacity to mentally represent past, present, or future and to reanalyze, re-evaluate, and find new meanings in them [58]. The capacity to reflect on one's thoughts, emotions, and actions is central to self-regulation that means how people direct their behavior in the pursuit of their goals [56]. However, maladaptive levels of self-reflection, such as a ruminative, self-critical thought in depression, can have detrimental consequences for health and wellbeing. Heightened self-reflection is a central feature of mood and anxiety disorder [59]. In contrast to mood and anxiety disorders, autism and psychopathy are examples of disorders where levels of self-reflection may be pathological low [60,61].

Day dreaming, imagination, and fantasy are essential elements of a healthy, satisfying mental life. Day dreaming offers relief from boredom, provides opportunities for rehearsal and constructive planning, and provides an ongoing source of pleasure [62]. In later work, Singer describes those who engage in positive constructive day dreaming as "happy-dream-

ers" who enjoy fantasy, vivid imagery, the use of daydreaming for future planning, and possess abundant interpersonal creativity [63].

Day dreaming serves four broad adaptive functions [64,65]. Day dreaming as a future thinking allows better plan and preparation of the future goal. Dreaming as a creative thinking allows ideas and experiences to have an incubation period, so the minds have a better chance of coming up with creative solutions. Dreaming provides also an opportunity for people to switch among different streams of information and thoughts. Finally, daydreaming can enhance learning by providing short breaks from external tasks, thereby achieving distributed rather than massed practice [66].

Anticipation opens a boundary through exploration and an ability to plan. It can be understood as a feeling of excitement about something that is going to happen in the future. Anticipatory behavior involves the concept of *feed-forward* that means adjusting present state or behavior to address future problems.

Hardy and Gres [67] view anticipation in the broader sense, as a capacity for a complex system of knowledge to expect events in the future. Anticipatory processes are not single, monolithic type of processes, but rather a set of different processes integrated with each other. They include rationality, affects, beliefs, intentions, and intuition.

For Klein and his colleagues [68], anticipatory thinking is the process of recognizing and preparing for future challenges and opportunities. They distinguish it from prediction because anticipatory thinking is functional - people are not just predicting future events, they are actively preparing themselves for them.

Similarly, Dubois [69] differentiates weak anticipation from strong anticipation. Weak anticipation or exo-anticipation is an anticipation made by system about external systems. In this case, anticipation is more related to predictions or expectations. This kind of anticipatory seems unable to explain the synchronization between an agent and an environment. While strong anticipation or endo-anticipation is an anticipation built by a system or embedded in a system about its own behavior. This is no more a predictive anticipation but a built anticipation and based on a global coordination of the entire system (agent-environment) on multiple time scales. Strong anticipation is a consequence of the coupling between the agent and the environment rather than predictions of the environment's states by the model constructed by the agent [70].

The TPD as Future Oriented Psychology

In this section, I analyze the TPD through the perspective of MTT with emphasis on the future orientation processes. The TPD includes five clearly distinguishable levels of psychological development: (1) Primary integration, (2) Unilevel disintegration, (3) Spontaneous, multilevel disintegration, (4) Organized, multilevel disintegration and (5) Secondary integration.

Primary integration

The first level called *primary integration* is a rigid and narrow structure governed by the first factor representing innate constitutional and biological potentialities of the organism (nature). When the developmental potential is limited to the first factor we are dealing with psychopathic or sociopathic individuals indifferent to social opinion and social influences, pursuing only their own totally egocentric goals [7].

Their conception of reality is limited to what is tangible, concrete, and available to sensory cognition as well as their awareness is limited to the narrow range of the external world. There are no actual daydreaming, no reflection in the sense of self-evaluation, and no any ability in anticipating the consequences of their behavior. Their thinking is concrete, focused on the physical world [7].

Sexual life is characterized by absence of retrospection and prospection. In consequence a human relationship of love cannot be formed and there is no parental responsibility [7,71]. Similarly, there is absence of emotional ties in the sense of emotional intimacy and relationship with another person. Instead, they show possessiveness toward others and often express suspicion, hatred and aggression against those who may express of regaining independence and freedom [7]. Concerning the higher emotions, clinicians and researches have observed that sociopaths can "knows the words but not the music." They must learn to appear emotional by observation, imitation, and practice (Stout, p. 128) [71].

Therefore, due to their affective deficiencies, psychopaths/sociopaths fail to recall emotional events from their past [72]. Psychopathic individuals engage only in ordinary short-term activities, show a lack of planning to achieve their goals, and become incapable of reflection on the consequences of their actions [7].

Based on these observations I can conclude that behavior of psychopathic or sociopathic individuals is the consequence of their inability to engage in MTT. Consistent with the hypothesis that MTT enables self-control, psychopaths appear to be impulsive and under control by primitive drive [73]. Other studies provide further evidence that a psychopath feels "stuck in the present", cuts off from past and future [74]. Without MTT, individuals could feel deprived of reason for meaningful action, could not experience emotions such as love, regret, hope, or longing, so they could not understand themselves. They almost never feel comfortable in their own skins. They are loveless, amoral, and chronically bored [71].

Unilevel disintegration

The second level called *unilevel disintegration* is a loose structure governed by the first (innate constitutional and biological potentialities of the organism) and the second factors (all social environmental influences). In that case we are dealing with individuals who throughout their life remain in the grip of social opinion and their own psychological typology [7].

They experience changeable feelings of like and dislike, approach and avoidance, fluctuations of moods, and conflict-

ing course of action, indecision and doubt. They are unable to make own decisions and let their decision fall to chance or to external influences. Their behavior is externally motivated and guided by others. Similarly, their values are internalized from external sources such as parents, teachers, government officials, and others. Because of lack of internal structure, those individuals accept stereotyped ideas and values as a function of the need to conform [7,10]. Similarly, Deci & Ryan's [75] describe this kind of behavior as the control orientation. People who are control oriented tend to rely on controlling events and on extrinsic rewards. Thus, their decisions are tend to be organized by the extrinsic factors such as pay, praise, or status. The controlled orientation is characterized by rigid functioning that is expressed by a lack of internal feelings of worth and need satisfaction, and consequently reduced well-being.

At this level, reality means the present moment that is understood as a source of diverse and rich experiences, but it is constantly changeable, unpredictable, and under influences of external world. Also sexual behavior and emotional ties are governed by different tendencies, although there is some need for preserving emotional bonds and understanding others [7].

Affective memory is ambivalent, oscillating between memory of pleasure and displeasure. Especially, at difficult times, affective memory displays an intense desire for maternal care or an escape to magic and dreams. In the same way, daydreaming shows the changeability in shifting from physical reality to vague magical dreams [7].

As we see from the above description, the individuals engage themselves in involuntary MTT that is an unconscious, short-lived, sporadic, and cue dependent process [76,77]. It provides only a temporary escape from their miserable and unhappy life but does not help in releasing tensions and distress caused by the conditions of lack structure and sense of direction. Dabrowski calls it "no exit" state. The experienced tensions may be transported to the body, giving rise to severe psychosomatic disorder. Very often the individuals escape into alcohol, drugs, or suicide [7].

Spontaneous multilevel disintegration

As development continuous, the third factor (the autonomous and intra-psychic processes) begins to operate and the transition form a unilevel to a multilevel phase of development is observed. This is "both the most crucial and the most unexpected developmental event" (Dabrowski, p. 26) [7]. This turning event causes changes in the attitude toward oneself and the environment. The individual begins to see himself and his environment in a new light [9].

This level of development is called the *spontaneous multilevel disintegration* and is characterized by an extensive differentiation of psychological structure and by an increasing role of inner conflict and gradual decreasing in the frequency of external conflict. Inner conflicts reflect a hierarchical structure of cognitive and emotional life: "what is" versus "what ought to be". Individuals recognize higher and lower levels of experiences and search for examples and models in their environment [7].

At this level of development, individuals begin to open themselves to the complexity and new dimensions of reality. Sensitivity and intensity of their personal experience are the function of psychic overexcitability that undergoes extensive differentiation in the course of development and creates the higher-order arrangement called *developmental dynamisms* [5,7,9].

Through developmental dynamisms, the ability for self-reflection, self-evaluation, and self-criticism increases. Individuals turn their attention inward and by engaging in MTT, they are able to compare the past and the present experiences in order to analyze and evaluate them. The more negative the evaluation, the stronger the dissatisfaction with oneself, the stronger is the need to make changes in oneself in the future [7].

Reflection and valuation begin to play a significant role also in the sexual and emotional life. There are the needs for meaningful and exclusive relationships and for stability and responsibility for the partner and the family [7].

All dynamisms of spontaneous multilevel disintegration are linked strongly with affective memory. Since, the developmental dynamisms are a function of emotional over-excitability, they create very intensive emotional experiences that become deeply imprinted in memory with all details and nuances of these experiences. They shape also daydreams, which reflect foreseeing, planning for the future, a hierarchy of values, and multilevelness of reality. Daydreams play also important role in desires of knowing oneself and developing oneself [7].

The developmental dynamisms at this level "open a channel for resolution and direction of developmental tension" (Dabrowski, p. 35) [7]. All of these dynamisms are based on strong anticipation that is a consequence of the coupling between the agent and the environment [70]. For example, seeing my mother's sadness and disappointment with me, I desire to make changes in my behavior. Because of my sensitivity/emotional overexcitability I have a strong emotional connection with my mother.

The main developmental dynamisms of the third level are:

- Astonishment with oneself a feeling of surprise with oneself and the beginning of the desireto change,
- Disquietude with oneself a growing attitude of self-criticism with emotional tension and the future search for the meaning of one's behaviour and existence,
- Dissatisfaction with oneself a critical and condemning attitude toward oneself, a strong determination to change and a transition to a higher level of reality,
- Feeling of inferiority the awareness of the possibility of development, the awareness of weakness and, at the same time, the feeling of one's potential and strength,
- Self-conscious emotions such as embarrassment, shame, and guilt,
- Positive maladjustment an emotional evaluation of reality anticipating the future need for changing the actual

reality, creating a new and higher reality and establishing oneself in it, and

 Creative dynamism - a feeling of rejection of everyday day reality anticipating the future possibilities of finding access to the world of "higher reality", a world of new ideas, new creative stimuli, and new intensive dreams [7,10].

As we see above, the developmental dynamisms motivate individuals to evaluate themselves, to infer the mental state of others, to recognize and correct social mistakes, to strengthen social bonds, to renew commitment to relationships, to reject lower values and accept higher values, to create, and to open themselves to new experiences for further exploration. The main purpose of these subjective activities is to develop the concept of self. Therefore, the individuals begin to engage in MTT and consequently experience a sense of the self in time. They begin to understand of continuity between past and future and discover that recalling past events become a source of information about their future possibilities that play an important role in their future choices and decisions. The individuals begin to feel as active agents whose motivation for their choices or decisions are not determined by past events but rather by evaluative and conscious processes to satisfy their desire for change and further development [78].

Organized multilevel disintegration

The characteristic feature of the fourth level called *organized multilevel disintegration* is conscious transformation of oneself and synthesis that leads to increasing stabilization of the hierarchy of value.

The developmental dynamisms at this level are a product of emotional, intellectual and imaginational overexcitabilities, which stabilize and organize a mental structure. The main dynamisms are "subject-object" in oneself - a feeling of critical self-observation, self-evaluation and the conscious need for the future development, the third factor- the autonomous forces of self-directed development and conscious choice in development, self-awareness - the awareness of one's identity and of one's individual uniqueness, self-control - brings order and unity into one's development, increasing calmness and confidence, creative dynamism-participates in organization of new, more complex mental structure, and empathy [7,10].

Emotional overexcitability by linking with other forms of overexcitability plays the main role in their development. It activates states of higher consciousness, deeper empathy, and enduring and exclusive relationships of love and friendships. Imaginational overexcitability becomes fully engaged in realization of transcendental needs, while intellectual brings an order and unity into development by increasing calmness and confidence [7,10].

Individuals at this level become more other-oriented and begin to expect more from themselves and less from others. They are more often and more intense occupied with the problem of the meaning of their existence. Their internal conflicts become controlled by concern for others and being of service to them.

Besides retrospective memory there is also prospective memory [7]. Individuals not only remember events from their past, but also mentally place themselves forward in time. They are able to anticipate of what they will be doing in the near and long future, how they will feel in these anticipated events, and what they hope to accomplish [79]. So, the individuals have a detail plan of their future actions, which is remembered and not abandoned. Also exclusive emotional ties of friendship and love are deeply imprinted in their memory [7].

Awareness and self-awareness are growing through reflection, meditation and contemplation and then the awareness of others increases. By being able to reflect on themselves and their own experiences at different points in time the individuals engage in different forms of mental time travel. Therefore by this process, the individuals gain a deep knowledge of themselves, which can use for modeling comparable states in others [80].

As I have shown, the individuals at this level are fully engaged in MTT. The distance from the present to the past and the future is stretched further than at the third level. Through the dynamisms of the organized multilevel disintegration, the individuals gain a variety of personal and interpersonal experiences, which increase a complexity of their unique reality, episodic/affective memory, and flexibility in generating future scenarios. The individuals focus not only on own future and personal goals, but also through empathy have a profound desire to help others in their unique individual growth that could have a much further consequences in the future [5,7].

For example, one of the participants of my research [33] expresses her future orientation: "Thinking about being a teacher makes me so happy. I feel like I'll actually be in control of my life and enjoy the outcome. Teaching is about contributing, challenging, and inspiring children" (p. 192).

Secondary integration

The fifth level - secondary integration represents the higher level of development and consists of a new organization and harmonization of personality. Personality means a self-aware, self-chosen, and self-affirmed structure. "The personality ideal is a distant pattern, which we realize, at the same time it is a reservoir of organizing active forces which is formed in the phase of multilevel positive disintegration and secondary integration" [8].

The main dynamisms active at this level are *responsibility* for oneself, responsibility for others, autonomy, authenticity, and profound and active *empathy* toward all people.

Responsibility at this level expresses authentic attitudes and arises from emotional and imaginational overexcitability. The individuals experience intense feelings of responsibility not only for themselves and their family but also for larger groups or even for the whole nation and all of mankind [5]. It is a conscious readiness to act and authentic efforts of realization in the future. So, responsibility is based on *prospection*. This is in agreement with the idea that implicit prospection is relevant to moral responsibility [81]. Prospection helps reason-responsiveness to different possible future contexts

and the autobiographical context gives meaning to the individuals' own decisions and plans. The individuals experience strong feelings of ownership that guide their future action. They are committed to act and held morally responsible for their action.

Responsibility cooperates with the dynamisms of autonomy and authenticity. The result of autonomous activity is a consciousness of being independent in thinking, experiencing, and behaving [5]. In self-determination theory [75,82] the need for autonomy refers to the sense of being the "origin" of one's actions and having a voice in determining one's own behavior.

While, to become authentic - in the sense of becoming a unique human individual with an unrepeatable, autonomously developed social attitude -must be considered one of the fundamental elements of our ideal of personality and hierarchy of aims. The concept of authenticity has fundamental significance in the *planning* and realization of the program of self-development and self-education. It is based on long-lasting experiences and understanding of human life [5].

Self-awareness and awareness are in the service of profound and active empathy toward all those who are hurt and humiliated. Dabrowski [5] defines empathy as a deepened feeling of sympathy toward other people, friendliness, understanding and the wish to assist them, as well as, the tendency toward partial reflective identification with individuals of different levels of mental development (p.87). While, Modell [49] defines empathy as a form of voluntary imagination in which there is a sense of the self as agent and it is usually experienced as a kind of pleasurable bonding with other (p. 118).

Empathy is a core component of Rogers' Person-Centered Therapy [83]. He postulated that in healthy relationships, characterized by genuineness and realness, acceptance and empathic understanding, people discover the capacity for growth, change and personal development. They become more real, more authentic and more aware [83].

Batson and his colleagues have looked at empathy as a possible source of altruistic motivation, which is defined as a goal of increasing another's welfare [84,85]. According to their findings, motivation can be truly altruistic and the greater the empathic emotion, the greater is the altruistic motivation. Empathic concern is, in turn, and effect of perspective taking [84,86].

At this level, reflection becomes a systematic practice of deep calm concentration. It begins to depend more and more

The TPD through Mental Time Travel

V. Secondary Integration

- MTT is very distant
- · The Higher level of development
- A new organization and harmonization of personality
- A self-aware, self-chosen, and self-affirmed structure

IV. Organized Multilevel Disintegration

- MTT stretched further
- An ability to project the self into possible future scenario
- Developmental dynamisms (emotional, intellectual & imaginational OE)

A longer MTT

III. Spontaneous Multilevel Disintegration

- Developmental dynamisms (emotional & intellectual OE)
- Retrieving episodic memory (retrospection)
- Increasing self-awareness (prospection)
- The self is born

II. Unilevel Disintegration

- A short MTT (short term goals)
- The grip of social opinion & own psychological typology
- · A lack of making own decisions

I. Primary Integration

- An inability to engage in MTT
- · "Stuck in the present"
- A lack of imagination projection & realistic goals
- · An impairment in personhood

Figure 1: The theory of positive disintegration through mental time travel.

on the operation of *intuition* that is the consequences of synthesis of developmental dynamisms that expresses a multidimensional and multilevel representation of external and internal, objective, and subjective reality. Such intuition becomes a reliable process of knowing and understanding [7]. In other words, this is intuition of the individuals who have developed a deep and rich knowledge base from their extensive life and professional experiences [87].

The individuals at the highest level of the psychological development are engaged in even more extended and more complex MTT than at fourth level. The highly emotional dynamisms of responsibility, empathy, authenticity, and autonomy motivate the individuals to take meaningful actions with great consequences in the future. Their wealth of memory and knowledge empowers them to look not only to their own future but the future of their children, the future of their creations like schools, institutes, companies, and even the future of their country. For example, in the book "Madame Curie," Eve Curie wrote about her mother Marie Sklodowska Curie, "She spoke only of the future...of the laboratory's future; of the future of the institute in Warsaw; of her children's future..." (p. 370) [88].

Conclusion

As I have shown, mental time travel (MTT) and its part of the future orientation can be understood as an indicator of the levels of TPD. Each level of TPD expresses different awareness of MTT. The higher the level of development, the further distance from the present to the future (Figure 1). By introducing the concept of developmental dynamisms, Dabrowski made his theory dynamic and future oriented. Developmental dynamisms are emotional-intellectual-imaginational forces that fuel and shape psychological development [5,7,9].

Dabrowski [5] wrote, "The operation of the third factor is grounded in a *prospective*, developmental perspective; in the conception of man as *becoming*, rather than a ready-made being. This view involves a *look backwards*, an awareness of what one was, and a *look forward*; that is to say, an awareness of the end of development, of what one is becoming" (p. 77)

By experiencing a variety of developmental dynamisms people gain the ability to evaluate themselves, to infer the mental state of others, to recognize and correct social mistakes, to strengthen social bonds, to achieve dynamic order in their lives and to find the direction for their future's goals and plans, and finally to become empathetic, autonomous, authentic and responsible human beings. Therefore, the main role of developmental dynamisms is to motivate people to be involved in the meaningful actions, which in turn, themselves are transformed by these actions. All those actions are "a value-driven selection directed towards some future goals" [49]. In other words, developmental dynamisms are grounded in strong anticipatory processes that result in the proactive dimension of life.

Dabrowski [4] postulated that psychological development through positive disintegration is the most effective way to prevent serious mental disorder of people at lower levels of development and to transcend people's present existence in order to enrich their "understanding of anything that belongs to the domain of the humanities" [9].

References

- Laycraft KC (2018) The theory of positive disintegration through the lens of complexity science. The Journal of New Paradigm Research 75: 163-173.
- 2. Dabrowski K (1964) Positive disintegration. Little, Brown and Company, Boston.
- 3. Dabrowski K (1967) Personality shaping through positive disintegration. Little, Brown & Company, Boston.
- 4. Dabrowski K (1972) Psychoneurosis is not an illness. Gryf Publications Ltd, London.
- Dabrowski K (1973) The dynamics of concepts. Gryf Publications Ltd, London.
- Dabrowski K (1976) On the philosophy of development through positive disintegration and secondary integration. Dialectic and Humanism, 131-144.
- Dabrowski K (1996) Multilevelness of emotional and instinctive functions. Towarzystwo Naukowe Katolickiego Uniwersytetu Lubelskiego, Lublin.
- 8. Dabrowski K (2015) Personality shaping. Through positive disintegration. Red Pill Press, Otto, NC.
- 9. Dabrowski K, Kawczak A, Piechowski M (1970) Mental growth through positive disintegration. Gryf Publication Ltd, London.
- Dabrowski K, Piechowski MM (1977) Theory of levels of emotional development. Multilevelness and positive disintegration. Dabor Science Publications, New York.
- 11. Dabrowski K, Piechowski MM (1977) Theory of levels of emotional development. From primary integration to self-actualization. Dabor Science Publications, New York.
- 12. Ackerman C (1997) Identifying gifted adolescents using personality characteristics: Dabrowski's overexcitabilities. Roeper Review 19: 229-236.
- Daniels S, Piechowski MM (2009) Living with intensity: Understanding the sensitivity, excitability, and emotional development of gifted children, adolescents, and adults. Great Potential Press, Scottsdale, AZ.
- 14. Mendaglio S, Tillier W (2006) Dabrowski's theory of positive disintegration and giftedness: Overexcitability research finding. Journal for the Education of the Gifted 30: 68-87.
- 15. Piechowski M (1979) Developmental potential. In: N Colangelo, RT Zaffrann, New voices in counseling the gifted. (edn), Kendall Hunt, Dubuque, IA, 25-57.
- Piechowski M (2006) Mellow out, they say. If I only could. Intensities and sensitivities of the young and bright. Yunasa Books, Madison, Wisconsin.
- 17. Pyryt MC (2008) Dabrowskian lens: Implications for understanding gifted individuals. In: S Mendaglio, Dabrowski's theory of positive disintegration. (edn), Great Potential Press, Inc, 174-182.
- 18. Silverman LK (1993) Counseling the gifted and talented. CO: Love, Denver.
- Silverman LK (2008) The theory of positive disintegration in the field of gifted education. In: S Mendaglio, Dabrowski's theory of positive disintegration. (edn), Great Potential Press, Inc, 157-173.

- Silverman LK, Ellsworth B (1981) The theory of positive disintegration and its implications for giftedness. In: N Duda, Theory of positive disintegration. (edn), Proceedings of the third international conference, Miami, FI, 179-194.
- Izard CE (1984) Emotion-cognition relationships and human development. In: CE Izard, J Kagan, RB Zajonc, Emotions, cognition and behavior. (edn), Cambridge University Press, Cambridge, 17-37.
- 22. Izard CE, Ackerman BP, Schoff KM, et al. (2000) Self-organization of discrete emotions, emotion patterns, and emotion-cognition relations. In: MD Lewis, I Granic, Emotion, development, and self-organization. Dynamic systems approaches to emotional development. (edn), Cambridge University Press, Cambridge, UK, 15-36.
- 23. Lewis MD (1995) Cognition-emotion feedback and self-organization of developmental paths. Human Development 38: 71-102.
- 24. Lewis MD (1997) Personality self-organization: Cascading constraints on cognition-emotion interaction. In: A Fogel, MC Lyra, J Valsiner, Dynamics and indeterminism in developmental and social processes (edn). Lawrence Erlbaum, Hillsdale, NJ, 193-216.
- Lewis MD (2000) The promise of dynamic systems approaches for an integrate account of human development. Child Dev 71: 36-43.
- Lewis MD (2000) Emotional self-organization at three time scales. In: MD Lewis, I Granic, Emotion, development, and self-organization. (edn), Cambridge University Press, Cambridge, UK, 37-69.
- 27. Lewis MD, Granic I (1999) Self-organization of cognition-emotion interactions. In: T Dalgleish, M Power, Handbook of cognition and emotion. (edn), Wiley, West Sussex, England, 683-700.
- 28. Lewis MD, Ferrari M (2001) Cognitive-emotional self-organization in personality development and personal identity. In: HA Bosma, ES Kunnen, Identity and emotion, development through self-organization. (edn), Cambridge University Press, Cambridge, UK, 177-198.
- 29. Thelen E, Smith LB (1998) Dynamic system theories. In: W Damon, R Lerner, Handbook of child psychology, Theoretical models of human development. (edn), John Wiley & Sons, Inc, 563-634.
- Van Geert P (2009) Nonlinear complex dynamical systems in developmental psychology. In: SJ Guastello, M Koopmans, D Pincus, Chaos and complexity in psychology. The theory of nonlinear dynamical systems. (edn), Cambridge: University Press, 242-281.
- 31. Laycraft K (2009) Positive maladjustment as a transition from chaos to order. Roeper Review 31: 113-122.
- 32. Laycraft K (2011) Theory of positive disintegration as a model of adolescent development. Nonlinear Dynamics Psychol Life Sci 15: 29-52.
- 33. Laycraft KC (2012) The development of creativity: A study of creative adolescents and young adults. University of Calgary, Calgary, Alberta.
- 34. Laycraft K (2017) Positive disintegration as a process of symmetry breaking. Nonlinear Dynamics Psychol Life Sci 21: 143-158.
- 35. Izard CE (1977) Human Emotions. Plenum Press, New York and London.
- 36. Plutchik R (1980) Emotion. A psychoevolutionary synthesis. New York, Cambridge, Philadelphia, San Francisco, London, Mexico City, Sao Paulo, Sydney: Harper & Row, Publishers.

- 37. TenHouten WD (2009) A general theory of emotions and social life. Routledge Taylor & Francis Group, London & New York.
- 38. Matte-Blanco I (1998) The unconscious as infinite sets: An essay in bi-logic. London: Karnac.
- 39. Suddendorf T, Corballis MC (2007) The evolution of foresight. What is mental time travel and is it unique to humans? Behav Brain Sci 30: 299-313.
- 40. Suddendorf T, Addis DR, Corballis MC (2009) Mental time travel and the shaping of the human mind. Philos Trans R Soc Lond B Biol Sci 364: 1317-1324.
- 41. Tulving E (1985) Memory and consciousness. Canadian Psychology 26: 1-12.
- 42. Tulving E (2001) Episodic and common sense. How far apart? Philos Trans R Soc Lond B Biol Sci 356: 1505-1515.
- 43. Tulving E (2002) Episodic memory: From mind to brain. Annual Review of Psychology 53: 1-25.
- 44. Levine B, Svoboda E, Hay JF, et al. (2002) Aging and autobiographical memory: Dissociating episodic from semantic retrieval. Psychol Aging 17: 677-689.
- 45. Szpunar KK (2010) Episodic future thought: An emerging concept. Perspective Psychol Sci 5: 142-162.
- 46. Schacter DL, Addis DR (2007) The cognitive neuroscience of constructive memory: Remembering the past and imaging the future. Philos Trans R Soc Lond B Biol Sci 362: 733-786.
- 47. Schacter DL, Addis DR (2007) The ghosts of past and future: A memory that works by piecing together bits of the past may be better suited to simulating future events than one that is a store of perfect records. Nature 445: 27.
- 48. Schacter DL, Addis DR, Buckner RL (2008) Episodic simulation of future events: Concepts, data, and applications. Ann N Y Acad Sci 1124: 39-60.
- Modell AH (2006) Imagination and the meaningful brain. A Bradford Book, The MIT Press, Cambridge, Massachusetts, London, England.
- 50. Freeman WJ (1999) Consciousness, intentionality, and causality. Journal of Consciousness Studies 6: 143-172.
- 51. Freeman WJ (1999) How brains make up their minds. Weidenfeld and Nicholson, London.
- 52. Ben-Ze'ev A (2000) The subtlety of emotions. Cambridge, Massachusetts, London, England: A Bradford Book.
- 53. Carver CS (2003) Self-awareness. In: Leary MR, Tangney JP, Handbook of self and identity. (edn), Guilford; New York, 179-196.
- 54. Duval S, Wicklund RA (1972) A theory of objective self awareness. New York: Academic Press.
- 55. Morin A (2006) Levels of consciousness and self-awareness: A comparison and integration of various neurocognitive views. Conscious Cogn 15: 358-371.
- 56. Duval TS, Silvia PJ (2001) Self-awareness and causal attribution: A dual system theory. Kluwer Academic, Boston.
- 57. Duval S, Silvia PJ (2002) Self-awareness, probability of improvement, and the self-serving bias. J Pers Soc Psychol 82: 49-61.
- 58. Bennett-Levy J (2003) Reflection: A blind spot in psychology? Clinical Psychology 27: 16-19.
- 59. Philippi CL, Koenigs M (2014) The neuropsychology of self-reflection in psychiatric illness. J Psychiatr Res 54: 55-63.

- 60. Newman JP, Lorenz AR (2003) Response modulation and emotion processing: Implications for psychopathy and other dysregulatory psychopathology. In: Davidson RJ, Scherer KR, Goldsmith HH, Handbook of affective sciences. (edn), Oxford University Press, New York, NY, US, 904-929.
- 61. Koenigs M, Kruepke M, Newman JP (2010) Economic decision-making in psychopathy: A comparison with ventromedial prefrontal lesion patients. Neuropsychologia 48: 2198-2204.
- 62. Singer JL (1966) Daydreaming: An Introduction to the Experimental Study of Inner Experience. Crown Publishing Group/Random House, New York.
- 63. Singer JL (1974) Daydreaming and the stream of thought: Daydreams have usually been associated with idleness and inattentiveness. Now, however, through an empirical research program, their general function and adaptive possibilities are being elucidated. American Scientist 62: 417-425.
- 64. Schooler JW, Smallwood J, Christoff K, et al. (2011) Meta-awareness, perceptual decoupling, and the wandering mind. Trends in Cognitive Sciences 15: 319-326.
- 65. Mooneyham BW, Schooler JW (2013) The costs and benefits of mind-wandering: A review. Can J Exp Psychol 67: 11-18.
- 66. Underwood BJ, Ekstrand BR (1967) Effect of distributed practice on paired-associate learning. Journal of Experimental Psychology 73: 1-21.
- 67. Hardy C, Gres S (2004) Anticipation: Humans versus machines. International Journal of Computing Anticipatory Systems, 1-15.
- 68. Klein G, Snowden D, Chew Lock Pin (2012) Anticipatory thinking. In: KL Mosier, UM Fisher, Informed by knowledge. Expert performance in complex situations. (edn), Taylor & Francis Group NY & London: Psychology Press, 235-246.
- Dubois D (2003) Mathematical foundations of discrete and functional systems with strong and weak anticipations. Anticipatory Behavior in Adaptive Learning Systems 2684: 110-132.
- 70. Stepp ND, Turvey MT (2010) On strong anticipation. Cogn Sys Res 11: 148-164.
- 71. Stout M (2005) The Sociopath next door. Broadway Books. New York.
- 72. Dolan M, Fullam R (2005) Memory for emotional events in violent offenders with antisocial personality disorder. Personality and Individual Differences 38: 1657-1667.

- 73. McIlwain D (2010) Living strangely in time: Emotions, masks and morals in psychopathically inclined people. European Journal of Analytic Philosophy 6: 75-94.
- 74. Petrican R, Burris CT (2011) The infernal now: Linking temporal inefficacy to cognitive ability and social adjustment. Canadian Journal of Behavioural Science 43: 52-62.
- Deci EL, Ryan RM (1985) The general causality orientations scale: Self-determination in personality. Journal of Research in Personality 19: 109-134.
- Berntsen D, Jacobsen AS (2008) Involuntary (spontaneous) mental time travel into the past and future. Conscious Cogn 17: 1093-1104.
- 77. Cole SN, Stangaard SR, Berntsen D (2016) Inducing involuntary and voluntary mental time travel using a laboratory paradigm. Mem Cognit 44: 376-389.
- 78. Seligman MEP, Railton P, Baumeister RF (2013) Navigating into the future or driven by the past. Perspect Psychol Sci 8: 119-141.
- McDaniel MA, Einstein GO (2001) Prospective memory. Psychology of International Encyclopedia of the Social and Behavioral Sciences, 12241-12244.
- 80. Gallup GG Jr (1998) Self-awareness and the evolution of social intelligence. Behav Processes 42: 239-247.
- 81. Sorrentino Marques B (2018) Does moral responsibility require mental time travel? Considerations about guidance control. Filosofia Unisinos, Unisinos Journal of Philosophy 19: 89-96.
- 82. Deci EL, Ryan RM (2000) The "what" and "why" of goal pursuits: Human needs and self-determination of behavior. Psychological Inquiry 11: 227-268.
- 83. Rogers CR (1989) On becoming a person. A therapist's view of psychotherapy. Houghton Mifflin Company, Boston, New York.
- 84. Batson CD (1991) The altruism question: Toward a social -psychological answer. Lawrence Erlbaum, Hillsdale, NJ.
- 85. Batson CD, Sager K, Garts E, et al. (1997) Is empathy-induced helping due to self-other merging? Journal of Personality and Social Psychology 73: 495-509.
- 86. Batson CD (1997) Self-other merging and the empathy-altruism hypothesis: Reply to Neuberg et al. (1997). Journal of Personality and Social Psychology 73: 517-522.
- 87. Hogarth RM (2001) Educating intuition. The University of Chicago Press, Chicago, London.
- 88. Curie E (1947) Madam Curie. William Heinemann Ltd, London.

DOI: 10.36959/447/346

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