

Intelligence and morality in gifted/high ability: piagetian perspectives

Bernadete de Fatima Bastos Valentim^{1*}, Carla Luciane Blum Vestena¹, Cristina Costa-Lobo² and Carla Maria de Schipper³

¹Universidade Estadual do Centro-Oeste, Rua Salvatori Rena, 875, 85015-430, Guarapuava, Paraná, Brazil. ²Instituto de Estudos Superiores de Fafe, Medelo, Portugal. ³Uniguairacá Centro Universitário, Guarapuava, Paraná, Brazil. *Author for correspondence. E-mail: bfbvalentim@gmail.com

ABSTRACT. People with giftedness have specific characteristics such as, above average skills, creativity and involvement with the task. Such characteristics must be recognized in the educational and social environment, including with regard to moral development. This article aims to discuss aspects related to the construction of intelligence and morality in people with giftedness from the perspective of genetic epistemology, highlighting its importance for the educational context. The methodology used consisted of bibliographic research using a systematic review method on the date of Scielo. This is exploratory research on the constructs: intelligence and morality in Piaget's view. In the search, thirty-four articles were found. Thirty-one were excluded for not addressing the topic. The synthesis of the results points to a lack of evidence from studies because only three articles were found in the last decade. It was necessary to expand the search with the magazine *Schème - Electronic Journal of Psychology and Genetic Epistemology*. The researches analyzed show that in giftedness there is a complexity in the formation of thought structures, there is an anticipation of the stages of intelligence development, a keen sense of morality and peculiar characteristics such as reversibility and consciousness. It is suggested, therefore, that a teaching that presupposes such characteristics provides appropriate challenges to the development of intelligence and morals considering the specificities of gifted subjects, who will not always be aligned with their age group. Therefore, it is suggested that further research be carried out in order to elucidate the gap found to deepen the issue.

Keywords: Gifted/high ability; intelligence; morality; genetic epistemology.

Inteligência e moralidade nas altas habilidades/superdotação: perspectivas piagetianas

RESUMO. Pessoas com altas habilidades/superdotação têm características específicas tais como, habilidades acima da média, criatividade e envolvimento com a tarefa. Essas características devem ser reconhecidas no meio educacional e social, inclusive no que se refere ao desenvolvimento moral. O artigo tem por objetivo discutir aspectos relacionados à construção da inteligência e da moralidade em pessoas com altas habilidades/superdotação na perspectiva da epistemologia genética, destacando a sua importância para o contexto educacional. A metodologia utilizada consistiu em pesquisa bibliográfica por método de revisão sistemática na base Scielo. Trata-se de pesquisa exploratória sobre os constructos: inteligência e moralidade na visão de Piaget. Na busca realizada, foram encontrados trinta e quatro artigos. Trinta e um foram excluídos por não tratar do tema. A síntese dos resultados aponta para falta de evidência de estudos pois, foram encontrados na última década apenas três artigos. Foi necessário expandir a busca junto a revista *Schème - Revista Eletrônica de Psicologia e Epistemologia Genéticas*. As pesquisas analisadas evidenciam que na superdotação existe uma complexidade na formação das estruturas do pensamento, ocorre antecipação dos estádios de desenvolvimento da inteligência, aguçado senso de moralidade e características peculiares como reversibilidade e tomada de consciência. Sugere-se, portanto, que um ensino que pressuponha tais características proporcione desafios adequados ao desenvolvimento inteligência e da moral considerando as especificidades dos sujeitos superdotados, que nem sempre estarão alinhados a sua faixa etária. Assim, sugere-se que sejam realizadas outras pesquisas que busquem elucidar a lacuna encontrada para o aprofundamento da questão.

Palavras-chave: altas habilidades/superdotação; inteligência; moralidade; epistemologia genética.

Inteligencia y moralidade em altas capacidades/superdotación: perspectivas piagetianas

RESUMEN. Las personas con altas habilidades/superdotación tienen características específicas como habilidades por encima del promedio, creatividad e implicación en la tarea. Tales características deben ser reconocidas en el entorno educativo y social, incluso en lo que respecta al desarrollo moral. Este artículo tiene como objetivo discutir aspectos relacionados con la construcción de inteligencia y moralidad en personas con altas habilidades/superdotación en la perspectiva de la epistemología genética, destacando su importancia para el contexto educativo. La metodología utilizada consistió en la investigación bibliográfica mediante un método de revisión sistemática basado en la base Scielo. Se trata de una investigación exploratoria sobre los constructos: inteligencia y moralidad en la visión de Piaget. En la búsqueda se encontraron treinta y cuatro artículos. Se excluyeron 31 por no abordar el tema. La síntesis de los resultados apunta a una falta de evidencia de los estudios porque solo se encontraron tres artículos en la última década. Fue necesario ampliar la búsqueda con la revista *Schème - Revista Electrónica de Psicología y Epistemología Genética*. Las investigaciones analizadas muestran que en la superdotación hay una complejidad en la formación de estructuras de pensamiento, hay una anticipación de las etapas del desarrollo de la inteligencia, un agudo sentido de la moralidad y características peculiares como la reversibilidad y la tomada de conciencia. Se sugiere, por lo tanto, que una enseñanza que presupone tales características brinda desafíos apropiados al desarrollo de la inteligencia y la moral considerando las especificidades de los sujetos superdotados, quienes no siempre estarán alineados con su grupo de edad. Por lo tanto, se sugiere que se realicen más investigaciones que busquen dilucidar la brecha encontrada para profundizar el tema.

Palabras claves: dotización; inteligencia; moralidad; epistemología genética.

Received on July 17, 2020.
Accepted on February 3, 2021.

Introdução

Despite the thorough studies on epistemology carried out by Piaget during his career, it is known that he did not discuss the issue of gifted/high ability. However, there is no way to ignore his contribution of genetic and interdisciplinary nature for teachers to know and understand how their students construct knowledge since, "[...] although he was interested in educational problems, his studies had an epistemological purpose, his work had greater repercussion among educational specialists". (Fabril & Calsa, 2009, p. 246; Luz, 1994).

Especially with regard to learning in gifted people, Almeida, Costa-Lobo, Almeida, Rocha, and Piske, (2017) comment that these subjects must be considered for their proactivity, self-regulation of their attitude to obtain more knowledge, quick absorption of information, and ability to put this information into action. They can also simulate possible solutions and ideas for a given problem, have high attention span and memory capacity, anticipation in learning when compared to their age group, advanced vocabulary, habit of independent reading, broad generalization of knowledge, easy apprehension of meaning, perfectionism in the execution of tasks, high sense of humor, and creativity.

Investigating how these subjects develop such thought structures directs the pedagogical process in order to address educational conflicts and use the most appropriate methods for the educational needs of each one (Luz, 1994). In this sense, we sought to identify, under the principles of the Piagetian theory, elements related to the characteristics of intelligent thinking and morality present in gifted/high ability from the perspective of genetic epistemology, bearing in mind that it is only possible to know a phenomenon based on a consistent theory and scientific evidence.

For this, we start from the gap indicated by Garcia (2012), when he found from an analysis of the papers presented in 20 years at the National Association of Graduate Studies and Research in Education, South Region (AnpedSul) the emptying of theory with a strong tendency to a pragmatic perspective in research in special education.

It is considered that by analyzing the theoretical essay on giftedness from the perspective of genetic epistemology, identifying elements that favor the understanding of intelligence and morality in gifted/high ability, it is part for the understanding of the construction of these in human development. Equally, it opens an important scientific discussion considered in the current situation because giftedness appears as a topic of interest to science, while few researches are presented under this perspective.

Just as Luz (1994, p. 25), it is considered that research needs "[...] interdependent theoretical and methodological certainties that allow for selection, evaluation and criticism [...]", without its dissociation

from historical evolution. To this end, here it is proposed in a synchronous way, to relate morality and intelligence, because,

The successive compensations with which human action, from the most elementary reactions to those of a more elaborate nature, responds to the constant disturbances to which it is subjected, translate into a process of equilibration, reflected in the redefinition of the reference models available to subjects and based on which they organize the functioning of their own conducts (Da Luz, 1994, p. 46).

Valentim and Vestena (2019), mention the relevance of interindividual relationships and the consciousness of self and others built in the social field, however, for this to happen it becomes essential self-knowledge and environmental and relational consciousness.

In this regard, this study offers important insights regarding research and the gifted subject in social/educational coexistence, his need to be understood and included in the teaching and learning process, in addition to respect for his identity.

Furthermore, the results found here offer important subsidies for the construction of public policies that contribute to school diversity and the need to think of the classroom as a multiple/individual and collective environment.

Methodology

It starts from theoretical essay, through bibliographic research, with qualitative analysis that seeks to analyze data, whether empirical or epistemological, being also exploratory research, because it aims to raise new discussions in relation to the main theme (Silveira & Cordova, 2009).

The method adopted was a systematic review of articles published in the Scielo database, with search strings 'giftedness and Piaget'; 'giftedness and morality'; 'giftedness and intelligence'; 'high abilities and morality'; 'high abilities and intelligence'. The systematic review was used to emphasize the research gap in relation to the proposed theme; however, it is not configured as the central objective of this work.

A systematic review is understood as Berg, Vestena, and Costa-Lobo (2020), which mixes methods in the conception of its own protocol, previously checked, demonstrating a rigorous tool in the selection of research. In this sense, it establishes "[...] process of collecting, knowing, understanding, analyzing, summarizing and evaluating a set of scientific studies aimed at creating the state of the art in a particular topic [...]" in a systematized way (Levy & Ellis, 2006, p. 185).

At the time of collection, a total of thirty-four studies were found. From the analysis of the abstracts, thirty-one studies were excluded for not addressing the theme related to the Piagetian perspective, or for being repeated when searching with the strings. At the end of the survey, articles were found in three journals: Revista Brasileira de Educação Especial de Santa Maria, Revista Brasileira de Educação Especial de Marília and Revista de Psicologia, as shown in Table 1.

Table 1. First search - name of the journals in which the papers were found.

Journal	Reference
Revista Brasileira de Educação Especial – Marília/SP	Bahiense & Rossetti (2014)
Revista de Psicologia	Salles & Alencar (2018)
Revista Brasileira de Educação Especial – Santa Maria/RS	Valentim & Vestena (2019)

Source: Elaborated by the authors.

Due to the reduced number of researches located, it was decided to search the Schème journal - Revista Eletrônica de Psicologia e Epistemologia Genéticas, which concentrates studies on research with theoretical foundations related to Piaget's work. Table 2 shows that two studies were found in this journal.

Table 2. Second search - papers found in Schème Magazine.

Journal	Reference
Schème – Revista Eletrônica de Psicologia e Epistemologia Genética	Piske & Stoltz (2012)
Schème – Revista Eletrônica de Psicologia e Epistemologia Genética	Piske, Stoltz, & Bahia (2015)

Source: Elaborated by the authors.

As cinco pesquisas encontradas evidenciam a falta de análises sob perspectiva piagetiana e demonstram lacunas para futuros estudos. Igualmente demonstram que o Paraná por meio dos Programas de Pós-

graduação em Educação e Psicologia de suas universidades públicas, tanto a Federal do Paraná (UFPR), como a Estadual do Centro-Oeste (Unicentro) se demonstram polos científicos importantes nessa temática podendo ser considerados referência quando há concepção sistêmica de constructos interrelacionados, pois, dos cinco estudos finais dois são UFPR e um da Unicentro. A discussão dos resultados se demonstra incorporada nos relatos teóricos abaixo, confirmando ou refutando a teoria piagetiana no que tange as AH/SD, o que faz deste estudo, documento teórico inédito e importante quando da fundamentação de pesquisas futuras.

Discussion of results

Piaget's genetic epistemology investigates the construction of knowledge understood not as something static, but as a process that evolves in levels. In other words, intelligence develops through a constant process of organization and adaptation of the subject while interacting with the environment.

Dolle (1987, p. 45) explains that genetic epistemology turns to the origins of knowledge "[...] in order to apprehend the genesis of knowledge from the perspective that there is no predetermined knowledge, nor in the subject's structures, since they are the result of an effective and continuous construction".

According to Luz (1994), for Piaget human development involves tension and unbalance in the acting existence. Thus, he supposes that there is a mechanism that allows continuous readjustment to the daily life experienced, conflicts and problems. However, such synchronous and asynchronous dynamics, are of a complex nature, because, while apprehending information from the environment, the subject participates in "[...] a set of choices and actions in the environment, which organizes the exchanges in an optimal way" (Luz, 1994, p. 77).

Such mechanism comes from what Luz (1994, p. 176) considers to be "Organic model of cognitive development [...]", where through the process of creativity or creation of knowledge and/or moral judgment there is "[...] organic and cognitive change [...]" in which three factors converge: the mode of functioning, the set of disturbances imposed by the environment and mechanisms of responses to these disturbances.

The processes of assimilation and accommodation common to all developing human beings are constant, which in people with gifted/high ability differ in the speed at which they happen. Thus, it is considered that any new knowledge is an abstraction or reorganization of available schemas that guide interpretations and decisions by the subject.

Such evidence, among others, clearly indicates that care and thoughtful study is needed on how the subjects with th gifted/high ability ink, feel, create, and judge, but, above all, establishes the urgency in understanding how their intellectual and moral development process happens under the principles of genetic epistemology.

Piagetian intelligence and giftedness

When investigating the birth of intelligence in children, Piaget (1975) concluded that knowledge begins to be built in the first months of life, which he called the sensorimotor period; this occurs through their own action, initially at the practical level and then at the mental level.

Vestena (2009, p. 122) highlights that, "[...] mental representations come from imitation to image and are schemas that originate verbal schemas." In other words, as the subject acts and interacts with the environment, he elaborates and coordinates, in a more complex way, his knowledge about objects.

In this way, intelligence is not a stable faculty, genetically determined or quantitatively observable. On the contrary, it constitutes a constant equilibrium "[...] toward which all structures tend, the formation of which must be sought through perception, habit and the elementary sense-motor mechanisms" (Piaget, 1961, p. 27). It can be said that intelligence is not pre-determined in the subject, but occurs continuously, as a process (Piaget, 1975).

Thus, the epistemic subject develops through action, in interaction with the environment since the early years. In this sense, Vestena, Dias, and Colombo (2012, p. 216) point out that this subject is active "[...] to the extent that he constitutes himself as such; and he constitutes himself as such by combined assimilation and accommodation.

Thus, intelligent acts are not recognized by their genetic constitution nor by the isolated action of the environment, but by the interaction between them. From the perspective of intelligence construction, "[...] cognitive development is organized and directed by mental structures composed of schemes of action and operations of logical-mathematical character" (Vestena et al., 2012, p. 217).

The development occurs by successive schemes from the simplest in early childhood, to the most complex ones proper to hypothetical-deductive thinking. On this aspect, Dolle (1987, p. 109) points out that the concept of schema can be understood as "[...] the set of properties common to similar situations. For example, the action of manipulating objects, recognizing, describing, and explaining them are schemas that will be progressively developed by the subject. Dolle (1987, p. 58) also points out that "[...] every action will involve, therefore, the two poles of intelligent activity: assimilation and accommodation.

Every knowledge process involves assimilation, that is, the "[...] functioning of the organism does not destroy, but preserves the cycle of organization and coordinates the data of the environment in order to incorporate them into this cycle" (Piaget, 1975, p. 17). It can be observed that the first step towards knowledge is related to assimilation, to later progress to accommodation, which concerns the "[...] result of the pressures exerted by the environment" (Piaget, 1975, p. 17). Therefore, modifications are made in the assimilated object and the development of intelligence happens through intellectual adaptation, which implies in the balance of these two processes.

This refers to the function of organization - internal point of view - and adaptation - external point of view, because "[...] these two aspects of thought are inseparable: it is by adapting things that thought organizes itself and it is by organizing that thought structures things" (Piaget, 1975, p. 19). This relationship between assimilation and accommodation, adaptation and organization, results in the balancing of structures.

In this way, intelligence develops in a process of elaboration of schemas coordinated by actions with which it establishes global relations that originate new structures, making this movement an infinite cycle, which can be understood through reflexive abstraction (Dolle, 1987).

From the first years of life, it is possible to observe signs of Gifted/high ability in that child who seems to be ahead of his time in terms of motor, language, and logical reasoning development, for example. These are the comparisons made by parents and teachers suspecting an above-average ability and the differences in the speed with which progress is being made. These observations are eye-opening and should be considered for possible referral for identification and evaluation for gifted/high ability, if appropriate.

Structurally, it can be said that the development process is the same for all subjects, however, it differs in functioning. While some students need more time to understand certain school contents, others have greater agility reaching reversible thinking in less time. This is what occurs with students with gifted/high ability when they reach cognitive developmental levels before the ages predicted by Piaget and in comparison to their peers.

According to Becker and Marques (2012), the highly skilled person is the one who comprehensively constructs and schematizes knowledge, connecting everything to new content. Thus, these generalizations of content will "[...] provide new structures, which can assimilate more complex content on which the subject can perform actions and coordinate them with each other forming new structures" (Becker & Marques, 2012, p. 166).

The research conducted by Machado and Stoltz (2014) revealed that a mathematically gifted AH/SD student reached the formal operative stage early, since he was able to elaborate hypotheses in the absence of the object by making propositions and establishing complex relationships. It also proved that the path taken by these students differs from others not only by the anticipation of the stage, but by the agility in thinking and creativity to solve problems.

The refined capacity in relation to actions such as establishing connections, producing novelties, problematizing, and finding solutions is related to reflexive abstraction. Thus, the epistemic subject transposes the assimilated concepts to different planes of knowledge, and this enables thinking about thinking. This occurs in the hypothetico-deductive period, as it allows "[...] understanding metaphors and analogies, thinking in terms of logic and abstractions, presenting flexible thinking, dealing with hypotheses" (Machado, 2013, p. 50).

In this perspective, the relationships between different points of view are understood by the subject at the level of reflections and hypotheses. However, although this development is common to all, in people with AD/HD this ability to generalize and abstract occurs in a faster and more complex way, that is, the differences in functioning are evident. In addition, these people also use different ways to solve problems by anticipating the answers verbally, as demonstrated by Machado (2013).

The constant process of balancing, unbalancing and rebalancing generates important modifications in the field of thought, because it moves from an action to a conceptualization. In other words, "The internalization of actions, from the epistemological point of view, is at the origin of operative structures" (Piaget, 1977a, p. 11). This is an infinite process that consists of successive conquests and the more interactions with the environment and internalized actions, the more elaborate the knowledge will be. In this case, there is the

consciousness that depends on these active regulations. The same process happens in all people, but in those who have AD/HD it is more accelerated.

For Piaget (1977a), consciousness is the passage from practical assimilation to assimilation through concepts, which starts from the periphery to the center. This means that the goals and results drive this process toward central mechanisms. In this way, the subject's actions are internalized and understood, which characterizes hypothetical-deductive thinking.

Consciousness initially implies conceptualizations and representations that result in new reconstructions, always (re)made through the schemes of action, polarizing in two types of abstractions: empirical abstraction and reflected abstraction (Piaget, 1977a). The first is related to the material characteristics of the action and the second to the coordination of the action, which allows the interpretation, the logical relationship and the operation of assumptions, that is, a reflection of the thought itself, which are characteristics of reversible thought.

Consciousness in students with gifted/high ability is favored when the conflicts that occur at school and in the school environment are valued. This means that situations apparently characterized as problems need to be discussed collectively. Social interaction and conflict promote consciousness because they allow the exercise of coming and going in relation to the point of view of their peers (Valentim, 2020).

In this sense, the flexibility of thought presupposes a progressive and agile decentration, a complex and balanced system characteristic of reversibility - it is a form of representation of action in the inverted sense (Piaget & Inhelder, 2012). This means to say that there is "[...] permanent possibility of return to the starting point" (Dolle, 1987, p. 173). Reversibility is characteristic of formal thinking and makes logical operations possible. It manifests itself in school when students demonstrate the level of understanding of the contents.

This ability was analyzed by Sabatella (2012) in people with gifted/high ability. The author infers that they find solutions or alternatives to certain issues, without needing many explanations. They often anticipate answers and show impatience when they need to wait to speak, especially when they have greater knowledge about the subject being discussed. We verify at this point the importance of social interaction favorable to the development of affective relationships. It is important that the teacher knows how to value this knowledge and at the same time guide the students with ADS in the classroom so that there is a balance in the relationships: that their knowledge does not supplant the other classmates' and at the same time that it is expanded.

The intelligence of people with gifted/high ability is influenced by the social environment through language, values and rules built in social exchanges so that these relations imply in interaction between subjects, therefore, one must consider that affectivity is present. But, what really drives knowledge?

From Piaget's point of view (2005, p. 8) "[...] affectivity is the motor, the first cause of the act of knowing, it is the mechanism that originates action and thought, implying that every act of desire is an act of knowledge and vice versa". Thus, if the epistemic subject desires to know something, he employs a certain amount of energy in this. In other words, when there is interest in an activity or content, whether scholastic or not, there is an investment of time in the search for solutions to conflicts, there is expenditure of physical and intellectual energy, there is the establishment of priorities.

This occurs equally with students with gifted/high ability, because in addition to above average ability and creativity, engagement with the task also makes up the three rings that characterize giftedness (Renzulli, 2014). The 'ring' of giftedness is related to commitment and according to Valentim (2020, p. 21) "It should be noted that the same author also mentions that this characteristic of the person with AD/HD reflects other traits, such as dedication, persistence, perseverance, focus and determination. This also applies to the task of engaging with the people with whom they live.

Affectivity drives the interest in knowledge and the will to build and strengthen inter-individual relationships. This is fundamental for students with gifted/high ability to include in their innovative projects actions that promote their well-being and the well-being of others.

Piagetian morality and giftedness

Moral development is a construction in which mutual respect, moral rules, and cooperation are fundamental. Morality is the subject of research in the Psychology of Morality which is defined as the "[...] science concerned with uncovering through which mental processes a person comes to intimately legitimize, or not, rules, principles, and moral values" (La Taille, 2006, p. 9 -; Salles & Alencar, 2018).

Piaget (1994), when analyzing the development of the child's intelligence, also considered relevant how moral judgment also evolves. This intrinsic and fundamental relationship between morality and intelligence has genesis in the maturation process of child development, and is possible for all individuals. It depends on factors such as a guided growth, a balanced operational construction process appropriate to the age group of this subject, and especially the interaction with the environment and everything that inhabits it (Berg & Vestena, 2014).

Regarding the rules that the child learns throughout childhood, according to Piaget, "[...] are transmitted to him by most adults, that is, he receives them already elaborated, and almost always elaborated, never to the extent of his needs and interests, but all at once and by the uninterrupted succession of previous adult generations" (Piaget, 1994, p. 23).

In this sense, moral rules come from the respect that children have for the content of the rules and the respect they have for the adults who pass them on, and their way of feeling will directly interfere in the construction of a human being capable of understanding and acting morally.

Respect, therefore, emerges as a fundamental notion for moral development, and may include: unilateral respect, which implies a relationship of inequality, from the one with more knowledge to the one without, or from the one with more life experiences to the one without; and mutual respect, which provides for a cooperative relationship where individuals respect each other reciprocally. At this stage of the development of moral judgment, the child begins to exercise justice, going against the externalized unilateral respect imposed by the rule of right and wrong. Conflicts, doubts, questioning, and confrontations arise, especially with adult authority.

The way conflicts are handled can reinforce heteronomy or favor autonomy. Questioning, criticizing, doubting, and questioning are part of the behavioral repertoire of students with gifted/high ability and they do so because they are curious and eager for knowledge. To deny this reality is like silencing their voice. If the voice of authority is what counts, and if conflicts are ignored, the heteronomous moral is reinforced. On the contrary, by giving them the opportunity to think about their own conflicts and those of their surroundings, the autonomous moral will be exercised.

For Piaget (1994),

The morality of authority, which is the morality of duty and obedience, leads, in the field of justice, to the confusion of what is just as the content of the established law and acceptance of the expiatory sanction. The morality of mutual respect, which is that of good (as opposed to duty) and autonomy, leads, in the field of justice, to the development of equality, a constitutive notion of distributive justice, and of reciprocity (Piaget, 1994, p. 243).

There is reciprocity in actions with students who have AH/SD, as they analyze and compare how they are treated and how their peers are treated. They feel the injustice, suffer, and show solidarity when they perceive unequal treatment (Valentine & Vestena, 2019).

Therefore, according to Piaget solidarity is a result of the exercise of morality among equals as, "[...] the origin of a set of complementary and coherent moral notions, which characterize the rational mentality" (Piaget, 1994, p. 243).

There are three phases of moral development as defined by Piaget (1994): anomie, which is defined as the total absence of rules, which leads us to think that morality is not innate; heteronomy, developed by a relation of coercion and related to unilateral respect and rules; and autonomy, which is characterized by mutual respect and cooperation in relationships, built in a process of interaction between the child and the environment, that is, internalized.

Piaget (1994) mentions that,

[...] the moral equilibrium, constituted by the complementary notions of heteronomous duty and sanction proper, is an unstable equilibrium, due to the fact that the personality does not find in it its complete development. As the child grows, the submission of his conscience to adult conscience seems less legitimate to him, and, except in cases of moral deviations properly so called, which are constituted by definitive inner submission (adults who remain children all their lives) or by lasting revolt, unilateral respect tends by itself to mutual respect and the relation of cooperation, which constitutes the normal equilibrium (Piaget, 1994, p. 243).

Thus, in the field of morality, Piaget (1977) states that the phase corresponding to autonomy is characterized "[...] by his decentered thinking, the adolescent is able to cooperate, that is, coordinate with others the actions on a mental level" (Tognetta, 2009, p. 62).

We realize the importance for the adolescent to belong to a group that has similar interests and projects because this contributes to the formation of identity. Tognetta (2009, p. 87) proved that "[...] a moral action

depends on its integration to the subject's identity, to his/her value system, to what he/she values, to what he/she is ashamed of, to what he/she admires". Therefore, it is important to create at school spaces and situations that provide opportunities for actions such as promoting self-knowledge and self-worth in order to recognize the other's point of view and consequently the formation of an ethical personality. The notion of belonging and identification with a group is very important for students with gifted/high ability, as they can develop their projects with their own and the group's benefits in mind.

Berg and Vestena (2014) confirm Tognetta (2009), when they studied Piagetian morality in quilombola girls, subjects of well-marked identity and values, as well as morality. The constant oppression to which the girls were subjected had their values and identity threatened, causing the notion of belonging and identity to be compromised.

In this sense, it is considered that at school it is essential to develop actions that favor affective relationships, strengthen self-knowledge, empower identity and self-confidence. In relation to people with gifted/high ability, it is evident the need for educators to know how to deal with this aspect; they also point out that affectivity influences human development, especially in gifted students, because their personal intelligences need work and investment so that these young people "[...] know how to deal with their moods, their tempers and emotions" (Piske & Stoltz, 2012, p. 161). The affective engagement of students with AH/SD, provides energy and interest for them to build healthy interindividual relationships. While becoming aware of themselves, their values, and their place in the world.

In line with this research is the study by Valentim, Neumann, and Vestena (2014) conducted with a student with AH/SD. The study analyzes the importance of developing affective stimuli in students with high gifted/high ability because, otherwise, there may be damage to the formation of identity that will have repercussions in adulthood, interfering directly in the social life of these subjects. This research pointed out that there is the possibility of developing self-sufficiency and the false sense that gifted people do not need the 'other'. If in fact, this feeling is perpetuated in people with gifted/high ability, in what ways and for what purpose would they use their intelligence and creative potential? Which morality would predominate, the heteronomous or the autonomous?

In the research conducted it was noticed that the "[...] affective and social difficulties of adult life had the overvaluation of cognitive aspects and the lack of stimuli for the development of their affective life in childhood and adolescence" (Valentim et al., 2014, p. 720).

These issues had repercussions at the emotional level of the student to the point that he needed to undergo psychological treatment to find his own identity as a person with AH/SD. Thus the autonomy that is expected of the person with AH/SD came with therapeutic help, so Valentim et al. (2014, p. 720) point out that "[...] does not mean that because they are autonomous and independent, they will always be able to solve their difficulties by themselves."

Another highlight in this study pointed to the importance of teachers having the knowledge to know how to identify who these students are as well as understanding that classrooms are not homogeneous. It is important to highlight that diversity is present and it is necessary to promote pedagogical actions that contemplate the different ways of being and learning of each student.

In this line of thought, Piaget (1961) is corroborated in relation to the statement that intelligence and affectivity are closely linked. For this, we highlight the importance of social exchanges in the development of both aspects so that there is reciprocity and coordination of the cognitive and social points of view. Thus, "Coordination is a cooperation of points of view or actions emanating respectively, from different individuals" (Piaget, 1961, p. 214).

Piske and Stoltz (2012) also observed that some students with gifted/high ability showed difficulties in their relationship with teachers, as they considered the classes tiring and uninteresting. Thus, the importance of the environment was identified, since the student adapts by modifying it as he establishes a relationship with his peers. However, the environment must offer opportunities for this process to occur, otherwise there will be alienation from the group and indifference towards it.

On the social level, relationships of cooperation, mutual respect, and social exchanges are important parts of the environment for the student with gifted/high ability to resolve his conflicts, including with teachers and classmates. Cooperation is important in this respect, it is an exercise in reversibility: think about myself, think about the other, think about both, and make a decision. It is worth pointing out the words of Yves de La Taille in the preface to the Brazilian edition of *The Moral Judgment of Children* (Piaget, 1994).

It is important to add that, as far as morality is concerned, the social relations prevailing in our world are rarely based on cooperation; consequently, a great number of people remain morally heteronomous all their lives, seeking to inspire their actions in 'revealed truths' by various gods or 'doctors' considered a priori as competent and 'above suspicion' (Piaget, 1994, p. 19).

In this perspective, we highlight the importance of the actions of the student with gifted/high ability being based on autonomous morality. Cooperation as a type of social relationship to be built requires the coordination of points of view and supposes a moral reasoning, but it is not enough if it is not also followed by a moral action.

Intelligent action supposes interest, effort and values to which Piaget (1961, p. 27) clarifies: "Reciprocally, the perceptual or intellectual elements, which are found in all emotional manifestations, are of interest to cognitive life, like any other perceptual or intelligent reaction".

This happens for what is observed by Valentim and Vestena (2019, p. 18) who state that there is "[...] predominance of a refined notion of justice [...]", as well as, "[...] autonomous morality [...]" because, the subjects of the research undertaken by the authors analyzed life situations considering the point of view of those involved and made decisions prizing the good of the collectivity. The gifted students used reasoning to analyze moral dilemmas and highly valued correct attitudes, considering it a serious infraction to go against rules elaborated in the collective. They understood that the classroom mirrors society as a whole and that injustices among peers have repercussions on the global - a systemic notion of a connected world.

Studies by Piske and Stoltz (2012) and Valentim et al. (2014) detected that gifted children may present problems in the family relationship between classmates and their teachers driven by the affective aspect, which according to the authors exerts influence on human development.

Piske et al. (2015) sought to deepen the theme, considering the process of knowledge construction during the teaching-learning of gifted students from the perception of their families. The results indicated prevalence of "[...] dialectical process in affective variables that play a determining role in learning, satisfaction, and well-being of children" (Piske et al., p. 92).

Both research and interventions in this regard are rare, lacking mainly psychological focus with parents of gifted individuals. Costa-Lobo et al. (2019) mention that positive parenting can garner positive outcomes in the development of intellectuality, morality, and affectivity in these families, since strategies for well-being can be trained and result in quality of life. This is what they found when they intervened with thirty families of highly skilled people in Portugal.

The importance of the social for development is indisputable and analyzed by Piaget (1980) in the work *Where does education go?* in which he discusses the right to education, pointing out the importance of external influences, the social and educational environment.

Thus, it was considered important the contribution that the environment has on human development, so it is convenient to teachers to analyze what has been their participation in the encouragement (or lack of it) for the construction of more elaborate knowledge in their students with gifted/high ability. For family members it is essential to 'safeguard the right conditions in an environment that favors the development of potentialities and talents' that preserve the peculiarities of highly able students, as well as the affective component (Piske & Stoltz, 2012; Valentim et al., 2014; Piske et al., 2015).

Final considerations

The thought of the student with gifted/high ability is characterized by a complexity of functioning, in which the influences in the school environment will favor or not its construction.

The action schemes formed by these students tend to appear more evident and faster, and it is necessary to consider their tendency to self-centeredness in the course of their development, which is similar to that of other subjects. Therefore, the importance of planning the classes in such a way that the cognitive, affective, and moral development is stimulated, as well as the implementation of self-study tasks for the gifted student in accordance with the intellectual characteristics that are peculiar to him.

In this sense, it is argued that the classroom needs to be interesting so that the student can develop his learning potential, because the teacher has a primary role to propose problematizing activities that do not disregard the way they find to solve the challenges of school content.

As for the way of finding solutions to the activities proposed in the curricular contents, it is concluded that HS/HS show syncretic and reversible thinking, and thus, relate the subjects they study in the disciplines beyond them.

It is suggested that, if the students with AD/HD do not express themselves according to what the teachers want, it is important to question them in order to understand their logic of thought, which sometimes goes beyond the conventional, given their complex thought structure, guided by reflexive abstraction. It is also important that this logic makes sense to them as well as to others in a learning exercise that considers diversity as part of thought.

This understanding is key to valuing the knowledge of students with AH/SD about what they have, also of others with respect to thinking and flexing ideas. The way the highly skilled express themselves should not be understood as an affront to the teacher's knowledge, but rather, as their way of demonstrating that they know, that they research, that they are able to delve into the content and research beyond the prescribed formal curriculum.

With specific areas of interest, the highly gifted deserve to have their aptitudes enhanced, as well as their limitations developed, because, not being efficient and knowledgeable in the totality of the knowledge universe, as equally in depth and maturity in what they do, judge or feel, they need teachers who know their peculiarities and are willing to stimulate and motivate them and not limit their abilities by not knowing their cognitive differences.

In the aspect of morality, it can be considered that this is developed at levels as determined by Piaget, but precociously, which determines an alert regarding aspects related to affectivity, often disregarded by educators.

Emotional oscillations in the gifted are a result of feeling and perceiving their environment and people that tend to amplify feelings that result in affective hypersensitivity (Sabatella, 2005; Valentim et al., 2014).

In this sense, they show that their emotions tend to intensity and durability greater than their feelings, persisting in the time of moral development, until their autonomy (Valentim et al., 2014).

In this sense, Valentim et al. (2014) confirm studies by Piaget (2005) who highlights reciprocity and cooperation as ways to affective decentralization in order to build moral feelings adjusted to the notion of mutual respect, especially in adolescence.

There is, therefore, in the highly skilled youngster, a continuous urgency to avoid isolation arising from the lack of identification with groups and their peers, because this phenomenon can result in difficulties in various areas.

Therefore, it is fundamental for the teacher, in addition to pedagogical knowledge, the professionalization and study directed to the psychological field and human sensibility as necessary competencies and skills to act in the diversity of personalities, constructs, and feelings that reside in the classroom. And the school, as a space of knowledge and social relations, is given the mission of being a healthy environment for coexistence and development.

References

- Almeida, L. S., Costa-Lobo, C., Almeida, A. I. S., Rocha, R. S., & Piske, F. H. R. (2017). Processos cognitivos e de aprendizagem em crianças sobredotadas: atenção dos pais e professores. In F. H. R. Piske, C. L. B. Vestena, J. M. Machado, A. O. M. Barby, T. Stoltz, S. Bahia, ... S. P. Freitas (Orgs.), *Processos afetivos e cognitivos de superdotados e talentosos* (p. 15-39). Curitiba, PR: Editora Prismas.
- Bahiense, T. R. S., & Rossetti, C. B. (2014). Altas habilidades/superdotação no contexto escolar: percepções de professores e prática docente. *Revista Brasileira Educação Especial*, 20(2), 195-208.
DOI: <https://doi.org/10.1590/S1413-65382014000200004>
- Becker, F., & Marques, T. B. I. (2012). Epistemologia genética e criança superdotada. In L. C. Moreira, & T. Stoltz (Coords.), *Altas habilidades/superdotação, talento, dotação e educação* (p. 155-169). Curitiba, PR: Juruá.
- Berg, J., & Vestena, C. L. B. (2014). Meninas quilombola: um olhar sobre gênero e lugar. *Terr@ Plural*, 8(2), 389-408.
- Berg, J., Vestena, C. L. B., & Costa-Lobo, C. (2020). Creativity in brazilian education: review of a decade of literature. *Creative Education*, 11(3), 420-433, DOI: <https://doi.org/10.4236/ce.2020.113030>
- Costa-Lobo, C., Pereira-Pinho, S., Vestena, C. L. B., Piske, F. H. R., Stoltz, T., & Vázquez-Justo, E. (2019). Impact of a psychological intervention with parents of gifted students. In *Proceedings of 13th International Technology, Education and Development Conference* (p. 637-642). Valencia, ES.
- Dolle, J. M. (1987). *Para compreender Piaget: uma iniciação à psicologia genética piagetiana*. Rio de Janeiro, RJ: Guanabara.

- Fabril, F. R., & Calsa, G. C. (2009). A obra piagetiana no Brasil: fecundidades e distorções na educação. *Revista Teoria e Prática da Educação*, 12(2), 243-250. DOI: <https://doi.org/10.4025/tpe.v12i2.13975>
- Garcia, R. M. C. (2012). A educação especial nos encontros de pesquisa em educação da região sul - AnpedSul: a pós-graduação e suas interlocuções com a educação básica. In F. B. Ramos, M. S. Paviani, & T. M. Azevedo (Orgs.), *A pós-graduação e suas interlocuções com a educação básica: múltiplos olhares*. Caxias do Sul, RS: Educus.
- La Taille, Y. (2006). *Moral e ética: dimensões intelectuais e afetivas*. Porto Alegre, RS: Artmed.
- Levy, Y., & Ellis, T. J. (2006). A systems approach to conduct an effective literature review in support of information systems research. *International Journal of an Emerging Transdiscipline*, 9(1), 181-212. DOI: <https://doi.org/10.28945/479>
- Luz, J. L. B. (1994). *Jean Piaget e o sujeito do conhecimento*. Lisboa, PT: Instituto Piaget.
- Machado, J. (2013). *Habilidades cognitivas e metacognitivas do aluno com altas habilidades/superdotação na resolução de problemas de matemática* (Tese de Doutorado). Universidade Federal do Paraná, Curitiba.
- Machado, J., & Stoltz, T. (2014). O pensamento criativo de aluno superdotado matematicamente talentoso na resolução de problemas de matemática. In F. H. R. Piske, J. M. Machado, S. Bahia, & T. Stoltz (Orgs.), *Altas habilidades/superdotação (AH/SD) criatividade e emoção* (p. 245-263). Curitiba, PR: Juruá.
- Piaget, J. (1961). *Psicologia da inteligência*. Rio de Janeiro, RJ: Editora Fundo de Cultura Brasileira.
- Piaget, J. (1975). *O nascimento da inteligência na criança* (A. Cabral, Trad., 2a ed.). Brasília, DF: Zahar.
- Piaget, J. (1977). *O desenvolvimento do pensamento: equilíbrio das estruturas cognitivas* (Á. Figueiredo, Trad.). Lisboa, PT: Publicações Dom Quixote.
- Piaget, J. (1977a). *A tomada de consciência*. São Paulo, SP: Melhoramentos.
- Piaget, J. (1980). *Para onde vai a educação?* Rio de Janeiro, RJ: Livraria José Olympio Editora.
- Piaget, J. (1994). *O julgamento moral na criança* (E. Lenardon, Trad.). São Paulo, SP: Summus.
- Piaget, J. (2005). *Inteligencia y afectividad*. Buenos Aires, AR: Aique Grupo Editor.
- Piaget, J., & Inhelder, B. (2012). *A psicologia da criança*. Rio de Janeiro, RJ: Difel.
- Piske, F. H. R., & Stoltz, T. (2012). O desenvolvimento afetivo de superdotados: uma contribuição a partir de Piaget. *Schème – Revista Eletrônica de Psicologia e Epistemologia Genética*, 4(1), 149-166. DOI: <https://doi.org/10.36311/1984-1655.2012.v4n1.p149-166>
- Piske, F. H. R., Stoltz, T., & Bahia, S. (2015). Percepções de famílias de superdotados sobre o processo de ensino-aprendizagem: um olhar a partir de Piaget. *Schème – Revista Eletrônica de Psicologia e Epistemologia Genética*, 7(2), 78-97.
- Renzulli, J. S. (2014). A concepção de superdotação no modelo dos três anéis: um modelo de desenvolvimento para a promoção da produtividade criativa. In A. M. R. Virgolim, & E. C. Konkiewitz, *Altas habilidades/superdotação, inteligência e criatividade: uma visão multidisciplinar* (p. 219-264). Campinas, SP: Papirus.
- Sabatella, M. L. P. (2005). *Talento e superdotação: problema ou solução?* Curitiba: IBPEX.
- Sabatella, M. L. P. (2012). Expandir horizontes para compreender alunos superdotados. In L. C. Moreira, & T. Stoltz (Coords.), *Altas habilidades/superdotação, talento, dotação e educação* (p. 113-142). Curitiba, PR: Juruá.
- Salles, A. M. B., & Alencar, H. M. (2018). Projetos de vida e moralidade em adolescentes com indícios de altas habilidades/superdotação. *Revista de Psicología*, 36(2), 491-524. DOI: <http://dx.doi.org/10.18800/psico.201802.004>
- Silveira, D. T., & Córdova, F. P. (2009). Pesquisa científica. In T. E. Gerhardt, & D. T. Silveira (Orgs.), *Métodos de Pesquisa* (p. 31-42). Porto Alegre, RS: Editora da UFRGS.
- Tognetta, L. R. P. (2009). *A formação da personalidade ética: estratégias de trabalho com afetividade na escola*. Campinas, SP: Mercado das Letras.
- Valentim, B. F. B. (2020). *Tomada de consciência de estudantes com altas habilidades/superdotação na vivência de conflitos sociopedagógicos* (Tese de Doutorado). Universidade Federal do Paraná, Curitiba.
- Valentim, B. F. B., & Vestena, C. L. B. (2019). Análise da noção de justiça em estudantes com altas habilidades/superdotação: uma contribuição educacional. *Revista Educação Especial*, 32(1), 1-21. DOI: <https://doi.org/10.5902/1984686X20149>

- Valentim, B. F. B., Vestena, C. L. B., & Neumann, P. (2014). Educadores e estudantes: um olhar para a afetividade nas altas habilidades/superdotação. *Revista de Educação Especial de Santa Maria*, 27(50), 713-724. DOI: <https://doi.org/10.5902/1984686X14421>
- Vestena, C. L. B. (2009). A problemática genética e epistemologia do desenvolvimento do pensamento e da linguagem. *Schème – Revista Eletrônica de Psicologia e Epistemologia Genéticas*, 2(3), 99-159. DOI: <https://doi.org/10.36311/1984-1655.2009.v2n3.578>
- Vestena, C. L. B., Dias, C. L., & Colombo, T. F. S. (2012). Hábito sensório-motor: o preparo para a inteligência e suas implicações para a educação. *Revista Educação Unisinos*, 16(3), 215-224. DOI: <https://doi.org/10.4013/edu.2012.163.1870>

INFORMATION ABOUT THE AUTHORS

Bernadete de Fatima Bastos Valentim: PhD in Education from the Federal University of Paraná (UFPR). Master in Education from the State University of the Midwest (UNICENTRO). Researcher at the Interdisciplinary Group of Human Development and Education (GIEDH/UNICENTRO). Professor at the Department of Pedagogy/UNICENTRO. ORCID: <https://orcid.org/0000-0002-2521-6540>
E-mail: bfbvalentim@gmail.com

Carla Luciane Blum Vestena: PhD in Education from the Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP-Marília-SP). Master in Geography from the Federal University of Paraná (UFPR). She holds a degree in Pedagogy from the Federal University of Paraná (UFPR) and a degree in Psychology from Faculdades Integradas Guairacá.. ORCID: <https://orcid.org/0000-0002-8655-7840>
E-mail: cvestena@unicentro.br

Cristina Costa-Lobo: Pós-Doutora pela UFPR. Professor of Portuguese higher education. Researcher at the UNESCO Chair of Youth, Education and Society. Researcher at the Center for Scientific Research and Development of ISPB, Benguela, Angola. Consultant for Externato de Santa Clara/Academia Beatriz Ribeiro, Porto, Portugal. ORCID: <https://orcid.org/0000-0003-4459-8676>
E-mail: ccostalobo@gmail.com

Carla Maria de Schipper: PhD in Education from UFPR. Master in Education from the State University of the Midwest (UNICENTRO). Master in Education from UNICENTRO. Researcher at GIEDH/UNICENTRO. Professor at UNIGUAIRACÁ. ORCID: <https://orcid.org/0000-0002-4805-840X>
E-mail: carlaschipper@gmail.com

NOTE:

The authors were responsible for the design, analysis and interpretation of the data; writing and critical review of the manuscript content; and approval of the final version to be published.