A Gift or a Curse: Applying Weiner's Attribution Theory to Understand the Achievement Motivation of Gifted Children

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Abstract: Gifted children do not always perform up to their real potential at school. This paper offers a critical literature review of the work published in the area of achievement motivation amongst gifted children. It starts by defining giftedness and discussing the potential challenges that gifted children face in the classroom and at school. Weiner's Attribution Theory is then deployed as a lens to frame the discussion of achievement motivation. Evidence from various research studies portraying the attributional inferences of success and failure among the gifted is presented. Finally, the paper proposes some of the lessons that the theory under discussion could teach teachers, systems and parents.

Keywords: Gifted children, Achievement, Motivation, Attribution

1. INTRODUCTION

Sitting alone in a corner building some sophisticated structures with Lego or sketching a detailed picture of his favourite cartoon character while the other children are playing is something that six-year-old boy "Faisal" does all the time. Family friends always questioned his lack of social skills and other children are very unlikely to enjoy playing a game with him due to his risk-averse nature. His teachers labelled him as a "daydreamer" who is always the last to follow instructions and finish tasks in the classroom, until a psychometric assessment revealed that little Faisal has a nonverbal ability that surpasses 98% of his age group, making him a "gifted" child. It is truly ironic to realise that a child's problem is his gift.

School systems are designed for the average learner and may fail to cater for the special needs of other groups. In a paper synthesising 25 years worth of studies concerning the lived experience of children who are gifted and talented within the context of school, Coleman et al. (2015) suggests that schools offer an environment that has chronologically based expectations for behaviour and is not organized for advanced learning. Schools are not ready for children who show patterns of rapid learning, depth and abstractness of learning, intense focus on interests, and uneven development. This clash between the educational structure and the learning profile of the gifted makes going to school a very disappointing experience that is characterised by long waiting time for

others, lack of challenge and even bullying. This can limit gifted children's potential and affect their motivation or achievement. The purpose of this review paper is to answer the following questions: What is the nature of gifted children as learners and what are some of the challenges they face in the classroom and at school, especially with respect to their achievement motivation? The paper will attempt to answer those questions through a narrative literature review exploring the achievement motivation of Gifted Children (GC) in light of Weiner's Attribution Theory (1974, 1979) and critically analysing some of the related published work.

2. DEVELOPMENT

A. Defining Giftedness

Most of the stereotypical characteristics that society holds about GC could be related to the "Genetic Studies of Genius" conducted by Lewis Terman and colleagues (1925), which claimed that such children are fast learners, healthy, emotionally stable and even more athletic than their peers, implying that a gifted child is a superhuman being. The studies seemed to focus on the academically gifted only and neglected the rest of the children within the spectrum, as the tests available to identify them, such as the Stanford-Binet Intelligence Scale, measure academic and logical thinking skills and not art or philosophy, for example. In fact, some research questions the reliability (Reis & McCoach, 2000) as well as the validity of intelligence tests as the correlation between

them and real-life accomplishment is not significant (e.g. Wallach, 1976; Baird, 1985).

On the other hand, Gardner (1983) suggests that intelligence can be found in nine different forms (linguistic, musical, spatial, logical, kinaesthetic, interpersonal, intrapersonal, naturalist and existential) and one can assume that each form will manifest itself through different personal characteristics. Hence, the gifted learner group is expected to be heterogeneous in nature. The Department of Children, Schools & Families (DCSF, 2008, p. 1) provide the following definition to describe the gifted learner group: "children and young people with one or more abilities developed to a level significantly ahead of their year group (or with the potential to develop those abilities)". The definition expands the concept to include academic and non-academic skills. It does not set clear criteria for what is meant by children being "significantly ahead" of their peers because giftedness is multifaceted and cannot be defined by a single criterion such as an IQ score; this makes it a relative rather than an absolute concept or a socially defined phenomenon. In other words, giftedness depends on the judgment of the educators/parents and the social context of the child. A particular child might be considered as a gifted writer in his small town school, while he might be considered as just above average once he moved to a high-end school in a big city.

Renzulli (1978) suggests in his "three-ring" definition of giftedness that the following three qualities are crucial for recognising giftedness: above average ability, task commitment and creativity. He stresses that an overlap between the three qualities make an individual outstanding. For example, a pianist who has superior ability but lacks perseverance or commitment will eventually limit his/her potential and creativity. This definition complements the former one by highlighting the role of motivation in showing, and potentially growing, talent. It implies that giftedness is not a static state, but a dynamic one, as it can improve or deteriorate depending on how much effort is dedicated to nurturing it. Interestingly, recent research suggests that the child's "mindset" or conceptual stance about the malleability of intelligence has an impact on performance (Dweck, 2012). Children who believe that intelligence can be acquired and developed over time or hold an incremental theory of intelligence are expected to perform better than those who believe that intelligence is fixed as part of their identity/entity.

The classic study of talent conducted by Benjamin Bloom looked at individuals with exceptional artistic, psychometric and cognitive talent, such as sculptors, pianists, swimmers, tennis players and mathematicians (Bloom & Sosniak, 1981). The results confirmed the importance of dedication, hard work and motivation stressed by Renzulli (1978) and acknowledged the role of parents in nurturing the child's gift since an early age. Gifted children were found to be willing to spend hours

practising in order to reach the highest levels of development. Gottfried and Gottfried (1996) found that gifted students scored significantly higher on a measure of academic intrinsic motivation than a comparison group. Of course, such findings do not imply that any child can become gifted as such children have special genetic and biological presuppositions that they are born with (Winner, 2000), but they simply imply that a gift needs special attention in order to flourish.

B. Potential Challenges

Based on a wide review of the literature (e.g. Powell & Haden, 1984; Webb & Kleine, 1993; Whitmore & Maker, 1985), Webb (1994) describes a number of social and emotional challenges that GC face as learners. First of all, these children are likely to experience uneven development, as their cognitive abilities develop faster than their motor skills, causing a feeling of frustration when their body does not help them to achieve their goals. Secondly, they tend to organise the world and people around them in their own certain way, creating possible resentment from friends due to their lack of flexibility in social interaction. In fact, Brody and Benbow (1986) found that thirteen-year-old students who scored exceptionally well in their SATs viewed themselves as not being popular amongst their peers; and Machů and Červinková (2014) found that GC scored less favourably than children with no reported gift in tests measuring social skills and social awareness. In addition, the gifted are found to assess potential risks and avoid new experiences due to a fear of failure. The child might feel pressured to conform to the social norms expected from his/her age group in order to fit in. This is very unfortunate, as the child might gradually adapt to the curriculum and hide his/her abilities instead of the school system adapting to his/her needs. Furthermore, setting very high expectations for themselves could result in a feeling of disappointment and excessive self-criticism. This tendency could hinder their academic progression as they strive to accomplish tasks with perfection and perhaps lag behind while others move ahead to the next task. Perfectionism can particularly be dangerous and self-destructive as it leads to burnout, stress, obsessive-compulsive behaviour and even suicide (Blatt, 1995). Finally, the paper asserts that depression is common amongst the group, either resulting from over evaluation of performance or a feeling of being trapped in an under-stimulating educational system.

Academic underachievement is a surprising yet common problem that GC are prone to. VanTassel-Baska (2000) found that 63% of GC do not meet their potential at school. Others suggest that underachievement can lead to dropping out of school at a later age (e.g. Robertson, 1991). Blass (2014) asserts that research conducted by the Australian Council for Educational Research found that academic underachievement in GC correlates with low social and emotional wellbeing. In other words, the incongruence between the level of ability and academic

performance is directly related to a disturbed self-concept and efficacy. Considering the characteristics explained in the previous section, one could only imagine the internal emotional hurricane that these children encounter. Bachtold (1969) found that gifted girls who did not perform to their potential are less gullible, less confident and have less self-control while boys were less emotionally stable and not serious about success. Apart from that, among the possible external factors causing underachievement are the myths that educators hold about the gifted. For instance, teachers might feel that such learners require minimal support, assuming that they can take care of their own development and needs (Neihard et al., 2002). Some teachers might not realise that gifts can be accompanied by learning disabilities that restrain students (Clinkenbeard, 2012). For example, GC can also be dyslexic, autistic or dyscalculic. Blaas (2014) emphasises the negative impact that labelling a child as gifted has on their acceptance by others. The same paper claims that uneven development can cause social distress as the gifted find it difficult to build rapport with their age group, and in turn the feeling of loneliness and isolation leads to lowered achievement.

C. Weiner's Attribution Theory of Achievement Motivation

The discussion above highlights, in many occasions, the role of motivation and emotion in differentiating GC from others and in maintaining their success. Therefore, Weiner's Attribution Theory will be used here to investigate how motivation relates to learning and the possible implications for the educators and parents of GC.

Bernard Weiner (1974, 1979) proposed an attributional theory of achievement motivation that can be applied in various contexts, including learning. The theory strives to analyse the causes behind success and failure as perceived by the individual and ultimately predicts adjustment in future actions towards similar antecedents. At the outset of his paper, "A Theory of Motivation for Some Classroom Experiences", Weiner explains the beliefs underpinning his theory. First, he states that the pursuit for causality will pertain even if it conflicts with pleasure-seeking principles. Secondly, the scope of the theory can potentially encompass social acceptance and rejection, as well as success and failure in the classroom. Thirdly, he believes that attributional inferences are closely tied to self-esteem and self-concept amongst students. Finally, although a myriad of factors are perceived to result in success or failure, research suggests that ability and effort are the most salient ones (see Weiner, 1985).

Weiner offers a tri-dimensional taxonomy of causality consisting of locus, stability and control. He claims that the locus of control factor introduced by Rotter (1966) can be further divided based on its conceptual components. The locus factor represents whether a cause is conceived as internal, such as skill or memory, or

external, such as exam difficulty or teachers. Moreover, the control factor represents the extent to which one has the power to manipulate or control an outcome. For example, effort is considered as a controllable factor while health is not. Control here is not equivalent to intention. Weiner argues that effort and mood, for example, are both internal and unintentional, yet are very different from one another as one is within the individual's power to control while the other is not. The stability dimension connotes variation over time. Factors such as family support and ability are generally categorised as stable while attention and mood are categorized as unstable. Based on the three dimensions, eight combinations or categories can be identified to classify factors as outlined in Table 1 below. It is important to note that Weiner clearly emphasises that the taxonomic placement of factors depends on personal subjective evaluation. For example, luck could be attributed as an internal-stable factor for some, or an external unstable factor for others. Therefore, the taxonomy does not intend to place factors into a fixed classification, as they are infinite in number, but offers structured and reliable criteria for individuals to analyse causality.

TABLE I: EIGHT CLUSTERS OF ATTRIBUTION*

Dimension Classification	E.g. Attribution of Success	E.g. Attribution of Failure
Internal-stable-uncontrollable	I am smart in English	I am not good at English
Internal-stable-controllable	I always work hard	I never study for tests
Internal-unstable-uncontrollable	I was in a good mood	I was sick on the test day
Internal-unstable-controllable	I studied hard for this test	I did not study for this test
External-stable-uncontrollable	School system is excellent	School system is hard
External-stable-controllable	The teacher loves me	The teacher hates me
External-unstable-uncontrollable	Good luck	Bad luck
External-unstable-controllable	My friends helped me	My friends did not help

*adopted from Woolfolk et al. (2013)

Weiner outlines the psychological consequences related to attributing success or failure to each of the three dimensions. Stability is claimed to be linked primarily with expectancy and secondarily with affect. For instance, expectations of future success in a maths test are increased if past success is attributed to a stable factor like a person's ability. Similarly, a student's expectation of future failure is increased if past failure is ascribed to a stable factor and decreased if it is ascribed to an unstable factor like illness. Certainty about success or failure is usually higher if the previous outcome was associated with a stable factor rather than an unstable factor. This relates back to the importance of a strong self-concept of ability for success and the student's persistence. In addition, the theory implies that self-esteem is a key

subsequent of the locus dimension. Students who attribute failure to lack of effort, which is an internal factor, could feel ashamed or guilty, while those who attribute it to others could become aggressive. Actually, the theory suggests that if failure is attributed to internal and stable factors, it could possibly lead to depression, apathy and isolation. In light of this, Graham (2004), who investigated the attributions made by English students learning French, reported that students who attributed their success to internal-unstable-controllable factors, such as effective learning strategies, had higher levels of achievement. Students who attributed causes to external-stable-uncontrollable factors, such as high task difficulty, were found to have lower levels of achievement. Finally, the control dimension was found to have an impact on the extent to which individuals help, evaluate or like others. For instance, a student who attended a class and did not take notes is less likely to receive help from his/her classmates, as they will attribute his problem to a controllable factor.

Reviewing the attribution theory could lead to few realizations. Students' attributions of success and failure are strongly related to their self-concept and efficacy. Believing that intelligence is an internal, stable and uncontrollable factor will serve the student in the case of success and possibly destroy him/her in the case of failure. On the other hand, believing that intelligence is an internal, stable and controllable factor could make a huge difference in terms of the student's motivation towards learning. The latter attribution has a healthier impact on the learner in the case of success and failure. When students do well, the attribution will make them feel proud of their achievement, and when they do not do well, the attribution will motivate them to work harder the next time. However, students who continue to work hard without achieving the desired outcomes could burn out with time. The theory also implies that by changing maladaptive attributions to more adaptive attributions, outcomes will change, through a process of attribution retraining.

D. Attribution and the Gifted Child

Research exploring the attributional inferences of GC helps in understanding the internal dialogue that such students encounter and in explaining the academic, social and emotional challenges they experience.

Findings from various studies (e.g. Heller & Ziegler, 1996; McNabb, 2003) suggest that highly able children tend to attribute success and failure to ability. This makes the student's self-worth almost conditioned with being intelligent. In other words, if a student believes that all success is due to being able or smart, then only ability results in success. The implication of such cognitive bias will depend on the degree to which the student believes that ability is stable and controllable or not. However, Vlahovic-Stetic et al. (1999) found that GC in mathematics show a lower attribution of failure to

external factors and ability. Here, the findings could suggest that some GC strongly believe in their exceptional ability and would not question it in the case of failure. In addition, Bogie and Buckhalt (1987) compared how gifted students attribute success with failure when asked to complete a novel task like solving puzzles with varying levels of difficulty. They found that the majority of students attributed their success to the ease of the task and second to ability. Similarly, the majority attributed their failure to the difficulty of the task and then their ability. This might imply that the nature of the task has an impact on attribution.

Other studies mentioned by Assouline et al. (2006) found that gender differences exist in attributions amongst GC. Boys are more inclined to attribute success to ability and failure to effort compared to girls who attribute success to effort or luck and failure to ability. Females then might be more motivated to work hard in order to succeed than boys. This also might mean that girls are more likely to be depressed or feel inferior in the case of failure while boys maintain a more positive sense of self-worth (almost ego-centric) in the case of failure. Accordingly, one might wonder if this attributional difference results from personality trait differences making females more modest than boys.

Assouline et al. (2006) examined the attributional choices for success and failure amongst more than 3000 gifted girls and boys from grades three to eleven (61.8% from grades three to six) in the areas of general school performance, mathematics, sciences and linguistic arts. Across the areas, most students attributed success to long-term effort (I always work hard) and ability and attributed failure to long-term effort (I never work hard), situational effort (I did not try hard enough for this task) and task difficulty. Three of the four most common attributional factors can be considered as internal based on Weiner's theory, suggesting that gifted students take ownership and responsibility for their own learning. Luck and teacher's favouritism were rarely reported by the gifted group. The study also reported an interesting observation suggesting that the older the student the more likely he/she would be to attribute success to ability or being smart and failure to not working hard. Although the study was not longitudinal in nature and thus we cannot confirm if this pattern is strictly due to age, the findings should not be ignored. Perhaps, being smart becomes a more salient construct in defining self-worth and identity with age.

In relation to gender differences in the attribution of success, the results were consistent with the pattern mentioned earlier in the literature in all academic areas except linguistic arts as no gender differences were found. However, the study reported no gender differences in the case of attribution of failure as both boys and girls ascribed low performance to a lack of long-term effort across all academic areas. This suggests that gifted girls do not perceive themselves to be less able than boys in maths or science and that gifted boys do not devalue their

ability in linguistic arts (in the case of failure), which is the stereotypical norm. Yet the study does not reveal how the gifted students classify each of the six factors (long-term effort, ability, short-term effort, luck, teacher's favouritism and task difficulty) based on the eight clusters outlined in Table 1. Realising whether gifted boys or girls consider ability as an internal-stable-uncontrollable factor or not, for example, would be enlightening. Also, the study did not compare the responses of GC with a comparison group; therefore, one cannot be certain about the extent to which the results are specifically relevant to gifted students or to the general age group that they resemble.

Bain and Bell (2004) investigated the attributions of social success and failure and peer relations amongst elementary school students who are identified as gifted in comparison with other high achievers who are not identified as gifted. They believe that GC are not more socially vulnerable than their peers, as they were found to possess a positive self-perception (physical ability, appearance and peer acceptance) and ascribed social success to internal factors and failure to internal and external factors. Nevertheless, note that the criteria for identifying the gifted sample depended on the use of intelligence tests, academic performance and teacher ratings, as is the case in the vast majority of the studies. This takes us back to the most basic dilemma in understanding the gifted, which is the lack of a fair and objective identification process. It is normal to find the sample group to be more socially talented, because this is what made them receive the school's attention in the first place. There is a high chance that the comparison group in this study did include gifted underachievers falsely categorised due to their weak social self-concept. In fact, McCoach and Siegle (2003), who compared gifted achieving and underachieving students, found that although there was no significant difference between the groups in measures of academic self-perception, the underachievers scored lower on measures of motivation and self-regulation.

3. DISCUSSION

A. Strengths and Limitations

Weiner's theory comes with a revolutionary prospective of causality, which initially depended on a single dimension of internal-external factors of motivation, introduced by Heider (1958). Adding the stability dimension helps in refining internal and external factors based on their volatility, which is crucial for framing future expectations and self-efficacy. Stability therefore relates to students' level of aspiration and hopefulness (Weiner, 1985). The controllability factor might be the most controversial in the model (e.g. Hogg &Vaughan, 2008). Some might question its relevance to external factors. Well, a student might not have control over the difficulty of the task, but he/she can certainly have an impact on how his/her teachers or peers treat

him/her. Students who believe that building relationships is within their power will feel a sense of pride. On the contrary, students who feel that building relationships is beyond their power of control could feel devastated. This leads us to a key feature within Weiner's theory, which is highlighting the association between attributions and affect (i.e. the cognitive-emotion process). This association could have considerable implications for helping students who show signs of negative emotions such as shame, guilt, anger and helplessness. For example, the empirical evidence shows that symptoms of helplessness manifest a lack of aspiration ascribed to a stable trait such as a lack of ability. Therefore, one could use this sign to alter how a student feels about the stability of this trait. Apart from its robust structure, the theory is praised for its explanatory power of human behaviour and its wide scope of application (Manusov & Spitzberg, 2008).

On the other hand, the theory has its pitfalls. First of all, the theory encourages learners to attribute success to internal factors and failure to external factors, which might lead to self-serving bias (Baumeister, 1999). In the long run, self-serving bias could restrain achievement rather than encourage it. Also, the theory draws pathways between attributional dimensions and effects in general without addressing the role of personal dispositions in the cognitive-emotion process mentioned in Jones and Davis's (1965) Correspondent Inference Theory. This is particularly crucial when studying GC as their unique personal characteristics must affect their motivation. Another questionable aspect in the theory rests in its lack of distinction between the attributions that individuals make about their own actions and those that they make about others. Jones and Nisbett (1971) contend that "actors" tend to attribute behaviours to situational requirements while "observers" attribute behaviours to a fixed personal disposition in the other person (i.e. the fundamental attributional bias). Weiner does not clarify how the individual's role, being an actor or observer, within the situation affects his/her attribution. Do GC attribute the success and failure of others in the same way they attribute it to themselves? If not, then how does that impact their peer relations and self-esteem?

What is more, the stability factor relates to Atkinson's (1964) Expectancy-Value Theory of Motivation, which suggests that motivation is increased when an individual believes that the probability of success is high and that the task is valuable or meaningful. However, the attribution theory does not seem to factor in the importance of the task to the individual (goal incentive). Similarly, the locus dimension distinguishes between internal and external factors as reactive causes rather than proactive reasons for outcomes. Buss (1978) undertook a conceptual critique of the way the terms cause and reason are used within attribution theory. The theory does not signify how internal or external factors by themselves can drive motivation or goal orientation. Goal orientation amongst

students suggests that some learners are motivated by fulfilling an internal need for mastery and knowledge, while others are motivated by seeking an external reward for performance such as a grade (Clinkenbeard, 2012). Goal orientation has an impact on competition and social adjustment (Udvari & Schneider, 2000).

The theory also seems to ignore the role of culture. In fact, Weiner himself acknowledges this oversight in his article "Attribution theory revisited: Transforming cultural plurality into theoretical unity" (Weiner, 2004). He states that culture determines the definition of success for individuals and the social expectations that are associated with being successful. For example, obtaining a "B" grade in one culture might be considered as a success in one culture and a failure in another. He also admits that some cultures consider achievement to be much more controllable than others. For example, in Japan, failure is mainly attributed to lack of effort and therefore is punished more harshly than in the United States. Accordingly, Weiner (2004) recognises culture, as well as previous experiences, as moderators between factors within the theory.

B. Message to Teachers, Parents and Schools

Examining the attributional patterns amongst GC helps teachers and parents to understand how such children perceive learning and how they can be motivated. Unfortunately, the contradiction in the literature makes it hard to be certain about whether a significant difference between this particular group and their age group exist in terms of motivational attributions. Still, there seem to be a general consensus about the group being intrinsically motivated and about the benefit of adopting an incremental intelligence/mastery-oriented mindset to improve achievement. Based on this, Zeigler and Heller (2000, p. 219) propose a retraining programme to adjust gifted students' attributions of success and failure, in what they describe as a "functional construction of reality". They depend on the use of structured verbal and written feedback. Typical feedback statements given to students are:

•   In the case of high performance: "your knowledge here is good and original, as it often is".

•   In the case of average performance: "with your abilities, you could have done better".

•   In the case of low performance: "you simply did not prepare enough for this test".

The researchers encourage teachers to attribute success to internal-stable factors such as ability at the beginning of the retraining, in order to increase the expectation of success and to improve self-esteem. However, since continuous success can never be guaranteed, such feedback should be gradually reduced and replaced by feedback encouraging the attribution of success and failure to internal-unstable factors, mainly effort. Ladd (1981) suggests that attributional retraining

can also be implemented in the realm of social skills to help isolated children develop better peer relations through the use of self-evaluation and coaching. Teachers and parents can ask children to reflect on how they interact with their peers and train them to attribute success in building relations to continued effort and strategy variation.

Clinkenbeard (2012) proposes using the TARGET model (task, authority, recognition, grouping, evaluation, and time) to restore motivation in GC. The model is based on a number of motivational theories including the attribution theory and goal orientation, and can be used at home too. The model highlights the use of classroom instruction to help students develop adaptive motivational patterns and encourage them to be mastery-oriented, to seek learning for its own sake. The model recommends the following:

•   "T": Tasks need to be designed at an optimal level for GC, in other words, challenging enough for them to maximise their learning. This means that GC need to join special programmes besides the standard classroom sessions, and those who show a significantly advanced level of achievement across a wide range of skills might need to be accelerated (Woolfolk et al., 2013). Students need to feel that their success is not due to the ease of the task. However, some warn parents and teachers about what is called the "small fish big pond effect". Zeidner & Schleyer (1999) suggest children who join homogeneous classes for the gifted could experience negative self-perceptions, increased test-anxiety and lowered academic performance. Parental support is vital for children joining special programmes, as it is very hard for them to perceive themselves as average learners (i.e. small fish) after being the top on their class.

•   "A": The authority aspect of the model encourages teachers and parents to give GC the opportunity to lead their own learning and choose tasks and activities (i.e. authoritarian parenting style in Garn et al., 2012). Instead of forcing children to complete homework that they find boring, parents should show empathy and explain why is completing the task important. Practicing autonomy could have a positive impact on students' self-efficacy and social development.

•   "R": Recognition based on intrinsic values, effort and improvement is vital. It is better to provide feedback to students by comparing their achievement with standards or by highlighting progress. Contrasting students with one another is discouraged. Recognition should encourage students to become mastery-oriented rather than performance oriented. This means that publishing results publicly at school is not desirable. Similarly, parents should not compare siblings or use statements like "try harder to make mum happy" or "if you fail, dad will be cross".

• "G": Including the gifted in small heterogeneous groups (as members and not as tutors). It is recommended that the groups are changed over time and that they include students who share interests and potential. Mixing with other students helps the gifted to build their social skills and perhaps in the long run this will make them realise that relationships can be controllable. Yeager and Dweck (2012) suggest that teaching students that social attributes (not only intelligence) can also be developed has a positive impact on lowering adolescents' aggression and stress in response to peer victimization and improve school performance.

• "E": Evaluation should be criterion-referenced and private, as mentioned earlier. Here, creativity from the teacher's side and flexibility from the school's side will be needed to prepare assessment exercises based on the student's level and to grade their work based on improvement/progress. This will strengthen the student's belief in the malleability of their ability as they improve over time. It will also encourage them to work hard and not take success for granted, which is a view supported by Dweck (2012).

• "T": Adjusting the time required for completion to achieve a higher level of mastery. Teachers need to prepare additional activities, of a slightly higher level of difficulty, to use for students who finish earlier than expected or at least use the extra time to allow students to read a book of their preference.

Another model that is worth noting here is referred to as the PERMA model, developed by Martin Seligman (2011). Seligman claims that psychological well-being is defined by five elements, namely: positive emotions (P), engagement (E), relationships (R), meaning (M), and accomplishment (A). In other words, it is asserted that individuals need to be able to: experience positive emotions such as happiness or enjoyment, fully engage in activities, be authentically connected with others, feel a sense of purpose in their life and experience success. Accordingly, educators are encouraged to introduce programmes, incorporating those five elements, to help gifted children deal with the many challenges that they face at school. For example, schools can introduce senior-junior mentoring programmes between GC, which can fulfil their need for connection with others and reduce their feeling of anxiety or isolation. Such programmes can also benefit the senior member, who might find supporting younger students to be rewarding and meaningful.

The DCSF (2008) recommends a number of national strategies to be adopted by schools to prevent underachievement. Using personalised learning and preparing individual development plans for GC comes at the top of the recommendations. Tailoring learning to the particular needs of each child requires teachers with special training in assessment and designing activities, as well as a dedicated gift coordinator who is capable of identifying provisions beyond the school activities. Schools are also recommended to have flexible timetables enabling children to join additional classes related to their gift, such as enrichment classes in maths or art. Offering students with opportunities to acquire deeper and broader understanding of topics that they are interested in can be more effective in accelerating their learning than jumping stages. Being the youngest in a cohort could result unnecessary emotional and social distress. In general, schools are expected to have a clear and fair policy for identifying GC and to provide them and their families with the needed support.

4. CONCLUDING REMARKS

The literature discussing the emotional and social nature of GC as learners shows that answering the questions of this paper is far from easy. On the one hand, research suggests that those children have high motivation, strong willpower and self-concept, while other papers stress the emotional vulnerability of such children. This contradiction might result from the discrepancies between researchers in defining the concept of giftedness and the approaches used to identify GC. It is important to note here that, since the group under study is young, teachers and parents become the main source of information for investigators in many studies. The social stigma associated with giftedness might influence the validity of responses. In addition, GC face various challenges inside the classroom and at school. Teachers might not provide the gifted learner the attention they need, because they fail to identify or recognise his/her gift. GC who are lucky enough to be identified, do not always have access to individualistic learning plans that are suitable to their rapid learning. Gifted underachievers seem to be a special subgroup that is possibly as capable as their gifted peers but they suffer from emotional and motivational dysfunctions that impede their performance.

Furthermore, Weiner offers a cognitive theory of motivation, based on the assumption that people have a natural need to understand the reasons behind their success and failure to adjust their future actions. Weiner assesses achievement motivation based on three causality dimensions (i.e. locus, control and stability) and links each dimension to subsequent effects. In a nutshell, Weiner argues that people adjust their future behaviour and effort depending on how they attribute past success and failure. Students are more likely to work harder after they fail a test, if they believe that they did not work hard enough the first time, rather than if they felt that they are not smart enough. The literature exploring the attributional patterns of success and failure in GC shows that GC have a high tendency to attribute their achievement to internal factors. Ability, in particular, seems to be most prevalent. Yet, the literature is not free from contradiction here as well. While all researchers related achievement to self-concept, it was not clear in some of the studies whether researchers were referring to social self-concept or academic self-concept, as the terms

were used interchangeably in many places. There is a real need for a large-scale comparative study involving children with various gifts to analyse the attributional differences between the gifted and a control group in terms of social and academic achievement.

Overall, the theory enjoys various merits especially in terms of its dimensional structure that is supported by abundant empirical evidence. The impact of attribution on students' achievement is certainly irrefutable. In terms of application, the theory gives educators a framework that they can refer to in order to "functionally construct the student's reality" in a way that would maintain their self-esteem and emotional stability, especially when dealing with failure. This framework is particularly crucial and useful when providing GC with feedback in the classroom and after completing assessment tasks. However, the model can be significantly improved by considering the impact of personal dispositions and the attributer's role within the situation on the cognitive-emotion process. Adopting a mixed cognitive-social approach when teaching gifted students is highly recommended. At the end, despite all the contradictions and discrepancies found in the literature, this paper shows that gifted learners are special; therefore, parents, teachers and schools should treat them accordingly.

REFERENCES

Assouline, S., Colangelo, N., Ihrig, D., & Forstadt, L. (2006). Attributional choices for academic success and failure by intellectually gifted students. *Gifted Child Quarterly*, *50*, 283-294.

Atkinson, J. W. (1964). *An Introduction to Motivation.* Princeton, NJ: Van Nostr and.

Bachtold, L.M. (1969). Personality differences among high ability underachievers. *Journal of Educational Research, 63*, 16-18.

Bain, S. & Bell, S.M. (2004). Social self-concept, social attributions, and peer relationships in fourth, fifth, and sixth graders who are gifted compared to high achievers. *Gifted Child Quarterly*, *48,* 167-178.

Baird, L. L. (1985). Do grades and tests predict adult accomplishment? *Research in Higher Education*, *23*, 3-85.

Baumeister, R.F. (Ed.) (1999). *The Self in Social Psychology.* Philadelphia, PA: Psychology Press (Taylor & Francis).

Blaas, S. (2014). The relationship between social-emotional difficulties and underachievement of gifted students. *Australian Journal of Guidance and Counseling*, *24,*243–255.

Blatt, S.J. (1995). The destructiveness of perfectionism: Implications for the treatment of depression. *American Psychologist*, *50*, 1003–1020.

Bloom, B., & Sosniak, L. (1981). Talent development. *Educational Leadership, November*, 86-94.

Bogie, C. E., & Buckhalt, J. A. (1987). Reactions to failure and success among gifted, average, and EMR students. *Gifted Child Quarterly*, *31*, 70-74.

Brody, L.E., & Benbow, O.P. (1986). Social and emotional adjustment of adolescents extremely talented in verbal or mathematical reasoning. *Journal of Youth and Adolescence*, *15*, 1-18.

Buss, A. R. (1978). Causes and reasons in attribution theory: A conceptual critique. *Journal of Personality and Social Psychology*, *36,* 1311-1321.

Clinkenbeard, P. (2012). Motivation and gifted children: Implications of theory and research. *Psychology in the School, 49*, 622-630.

Coleman, L. J., Micko, K. J., & Cross, T. L. (2015). Twenty-five years of research on the lived experience of being gifted in school: Capturing the students' voices. *Journal for the Education of the Gifted*, *38*(4), 358-376.

DCSF (2008)a. *Identifying Gifted and Talented Learners– Getting Started*. Nottingham: DCSF Publications.

DCSF (2008)b. *National Strategies: Gifted and Talented Education Guidance on preventing underachievement: a focus on exceptionally able pupils*. Nottingham: DCSF Publications.

Dweck, C. S. (2012). Mindsets and malleable minds: Implications for giftedness and talent. In R. Subotnik, A. Robinson, C. Callahan, P. Johnson, & E. J. Gubbins (Eds.), *Malleable Minds: Translating Insights from Psychology and Neurosciences to Gifted Education* (pp. 7-18). Storrs: National Research Centre on the Gifted and Talented, University of Connecticut.

Gardner, H. (1983). *Frames of Mind: The Theory of Multiple Intelligences*. New York: Basic Books.

Garn, A. C., Matthews, M. S., & Jolly, J. L. (2012). Parents' role in the academic motivation of students with gifts and talents. *Psychology in the Schools*, *49*, 656-667.

Gottfried, A. E., & Gottfried, A. W. (1996). A longitudinal study of academic intrinsic motivation in intellectually gifted children: Childhood through early adolescence. *Gifted Child Quarterly*, *40*, 179–183.

Graham, S.J. (2004). Giving up modern foreign languages? Students' perceptions of learning French. *The Modern Language Journal*, *88*, 171-191.

Heider, F. (1958). *The Psychology of Interpersonal Relations*. New York: John Wiley & Sons.

Heller, K. A., & Ziegler, A. (1996). Gender differences in mathematics and the sciences: Can attributional retraining improve the performance of gifted females? *Gifted Child Quarterly, 40*, 200–210.

Hogg, M. A.,& Vaughan, G. M. (2008) *Social Psychology* (5th ed.). Essex: Pearson Education Limited.

Jones, E. E.,& Davis, K. E.(1965). From acts to dispositions: The attribution process in person perception. *Advances in Experimental Social Psychology*, *2*, 219-266.

Jones, E. E., & Nisbett, R. E. (1971). *The Actor and the Observer: Divergent Perceptions of the Causes of Behaviour*. Morristown, N.J.: General Learning Press.

Ladd, G. W. (1981). Effectiveness of a social learning method for enhancing children's social interaction and peer acceptance. *Child Development*, 52, 171-178.

Machů, E. & Červinková, H. (2014). Social intelligence of gifted pupils. *New Educational Review,37*, 130-139.

Manusov, V., & Spitzberg, B. (2008). Attribution theory: Finding good cause in the search for theory. In L. Baxter, & D. Braithwaite (Eds.), *Engaging Theories in Interpersonal Communication: Multiple Perspectives* (pp. 37-51). Thousand Oaks, CA: SAGE Publications, Inc.

McCoach, D. B., &Siegle, D. (2003). Factors that differentiate underachieving gifted students from high-achieving gifted students. *Gifted Child Quarterly*, *47*, 144–154.

McNabb, T. (2003). Motivational issues: To performance. In N. Colangelo, & G. A. Davis (Eds.), *Handbook of Gifted Education*(3rd ed., pp. 417–423). Boston: Allyn & Bacon.

Neihard, M., Reis, S., Robinson, N.M., & Moon, S. M. (2002). *The Social and Emotional Development of Gifted Children: What Do We Know?* Washington DC: Prufrock Press, Inc.

Powell, P.M., & Haden, T. (1984). The intellectual and psychosocial nature of extreme giftedness. *Roeper Review*, 6, 131-133.

Reis, S.M., & McCoach, D.B. (2000). The underachievement of gifted students: What do we know and where do we go? *Gifted Child Quarterly*, *44*, 152-170.

Renzulli, J. S. (1978). What makes giftedness? Re-examining a definition. *Phi Delta Kappan*, *60*, 180-184, 261.

Robertson, E. (1991). Neglected dropouts: The gifted and talented. *Equity and Excellence*, *25*, 62–74.

Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs*, *80*, 1.

Seligman, M. E. P. (2011). *Flourish*. New York: Simon & Schuster.

Terman, L. M. (1925). *Mental and Physical Traits of a Thousand Gifted Children. Genetic Studies of Genius Volume 1.* Stanford (CA): Stanford University Press.

Udvari, S.,& Schneider, B. (2000) Competition and the adjustment of gifted children: A matter of motivation. *Roeper Review*, *22*, 212-216.

VanTassel-Baska, J. (2000). Curriculum policy development for secondary gifted programs: A prescription for reform coherence. *National Association of Secondary School Principals*, *84*, 14-29.

Vlahovic-Stetic, V., Vidovic, V. V., & Arambasic, L. (1999). Motivational characteristics in mathematical achievement: A study of gifted high-achieving, gifted underachieving and non-gifted pupils. *High Ability Studies*, *10*, 37-49.

Wallach, M. A. (1976). Tests tell us little about talent. *American Scientist*, *64*, 57-63.

Webb, J.T (1994). *Nurturing Social-Emotional Development of Gifted Children*. ERIC EC Digest No 527. Retrieved from ERIC Database.

Webb, J.T., & Kleine, P.A. (1993). Assessing gifted and talented children. In J. Culbertson, & D. Willis (Eds.), *Testing Young Children*(pp. 383-407). Austin, TX: PRO-ED.

Weiner, B. (1974). *Achievement Motivation and Attribution Theory*. Morristown, NJ: General Learning Press.

Weiner, B. (1979). A theory of motivation for some classroom experiences. *Journal of Educational Psychology*, *71*, 3-25.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, *92*, 548-573.

Weiner, B. (2004). Attribution theory revisited: Transforming cultural plurality into theoretical unity. In D., McInerney & S., Etten (Eds), *Big Theories Revisited* (pp. 13-29). Connecticut: Information Age Publishing.

Whitmore, J.R., & Maker, C.J. (1985). *Intellectual Giftedness in Disabled Persons*. Rockville, MD: Aspen.

Winner, E. (2000). The origins and ends of giftedness. *American Psychologist*, *55*, 159-169.

Woolfolk, A., Hughes, M., & Walkup, V. (2013). *Psychology in Education*. Harlow, England: Pearson Education Limited.

Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist*, *47*, 302-314.

Zeidner, M., & Schleyer, E. J. (1999). The big-fish–little-pond effect for academic self-concept, test anxiety, and school grades in gifted children. *Contemporary Educational Psychology*, *24*, 305-329.

Ziegler, A., & Heller, K. A. (2000). Effects of an attribution retraining with female students gifted in physics. *Journal for the Education of the Gifted*, *23*, 217-24.