

Psychological Intensities in Young Gifted Children

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ABSTRACT

Emotional sensitivity and emotional intensity are well documented in gifted children. Dabrowski (1967, 1972) proposed that sensitivity and intensity were a part of these children's psychological makeup and, instead of being indicators of neurotic imbalances, were positive potentials for further growth. These characteristics were displayed in gifted children through 5 overexcitabilities: psychomotor, sensual, intellectual, imaginal, and emotional. This theory was investigated using a qualitative case study methodology. Data were collected on 5 young gifted children (ages 4 through 6) and analyzed using Dabrowski's 5 overexcitabilities as a theoretical framework. Results displayed that the 5 overexcitabilities were manifested in the children through behaviors in the classroom and at home. Results support the use of Dabrowski's theory in identifying and understanding some aspects of the behavior of young gifted children.

Introduction

The eighteen 4, 5, and 6 year-old children are sitting in a circle, watching their teacher demonstrate how wind is one of the forces that erodes the earth. Peter and Gerald are sitting quietly and seem to be listening intently as the teacher talks. Heather is also sitting quietly. She is sucking her thumb and playing with her hair as she listens. Katrina is wandering around the circle touching children on top of the head. Linda, their teacher, asks Katrina to sit down. She does, but continues to wiggle, play with her clothes, and tie and untie her shoes. Steven does not seem to be listening. He is staring out the window. Linda asks the class, "What are three ways to erode the earth?" Peter answers, "Water." Katrina, while playing with her shoes, contributes, "Wind." Sam turns back from the window to answer, "Ice." Linda turns on a blow dryer and focuses it on piles of sand, rocks, and soil to simulate the wind blowing. "Which one of the materials will blow away

quickest?", asks Linda. Heather answers, "I think the sand. It is softest." "That's a hypothesis," responds Gerald.

All of these children attend the Ricks Center for Gifted Children, a private school for gifted children located on the University of Denver campus. The children were selected for participation in the gifted program through a multi-faceted identification process which includes a developmental history, parental questionnaire, and activity-based assessment. The identification process incorporated data from multiple sources including information supplied by parents and teachers, developmental information, and observations of children engaged in activities. These children would also be classified as gifted using more traditional measures; they all have IQ's in the gifted range. Their IQ scores range from 134 to 177. Typically, a child with an IQ above 130 is considered gifted (Bukatko & Dachler, 1995).

Research suggests that, as a group, young gifted children possess characteristics that distinguish them from their peers in cognitive, affective, and physical development. Cognitively gifted children tend to use more complex words than their age peers. As indicated in the beginning vignette, it is not unusual for young gifted children to use words like "hypothesis" and "erosion" in

PUTTING RESEARCH TO USE

This article displays how Dabrowski's overexcitabilities are demonstrated in five young gifted children. It provides for educators of the gifted examples of how sensitivity and emotional intensity may be demonstrated in their own students. Teachers of gifted children need to be aware of these overexcitabilities and understand that their presence is intrinsic to the child's giftedness, and not necessarily indicative of some type of psychological problem.

In addition, the article demonstrates the importance of making psychological development a part of education for the gifted. A gifted child is a combination of many characteristics: social, emotional, physical, and intellectual. All of these facets of children's personalities need to be considered when developing appropriate educational environments for gifted children.

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their everyday conversations. They have an ability to generate original ideas and solutions, to synthesize, and to think abstractly. A discussion of erosion may remind young gifted children of other situations in which they have heard that word. They might engage in a discussion of how they could prove or disprove a suggested hypothesis (Hollinger & Kosak, 1985; Lewis & Louis, 1991; Lewis & Michaelson, 1985; Parke & Ness, 1988; Roedell, Jackson, & Robinson, 1980; VanTassel-Baska, 1988).

Gifted children are curious, intense, creative, and persistent (Clark, 1988; Lewis & Louis, 1991; Parke & Ness, 1988; Roedell, 1994; Roedell, Jackson, & Robinson, 1980; Webb, 1994). As Parke and Ness (1988) state, "They seem to absorb knowledge endlessly. Only sleep closes the storage banks for the day" (p. 197). Many times their attention spans and interests differ from the norm. Whereas one might expect a 3-year-old child to paint at the easel for ten minutes, a 3-year-old gifted child may spend 30 minutes executing a detailed and intricate landscape (Parke & Ness, 1988). In many cases, they develop certain "passion" areas in which they are intensely interested (Parke & Ness, 1988).

Emotional intensity and emotional sensitivity have been cited as characteristic of gifted young children (Clark, 1988; Piechowski, 1991; Roeper, 1982; Silverman, 1983; Webb, 1994; Whitmore, 1980). Young gifted children seem to be highly aware of the world around them, of their place in it, and of the relationships between people and places, time and spaces. They tend to have unusual depth of feeling (Clark, 1988) which manifests as sensitivity to the emotions of other people and the early development of empathy (Kline & Meckstroth, 1985; Parke & Ness, 1988; Scheckty, 1981; Webb, 1994). While many preschoolers often use hedonistic reasoning and are preoccupied with gain for the self (Eisenberg, 1986), young gifted children can be extremely sympathetic to a friend who is hurt or unhappy. They are inclined to be concerned about truth, equity, and fair play (Webb, 1994). They are troubled about humanitarian affairs such as wars and starvation (Roedell, Jackson, & Robinson, 1980; Roedell, 1993; Webb, 1994). They have high expectations for themselves and others (Clark, 1988; Scheckty, 1981; Webb, 1994). Gifted children also tend to develop an early locus of control and are more independent and less likely to conform to peer opinions (Clark, 1988; Lucito, 1964; Smith, 1965; Webb, 1994).

Interest in gifted children has focused primarily on their intellectual and creative traits (Roeper, 1982). However, a child is a total entity, a combination of many characteristics. Emotions cannot be treated separately from intellectual awareness, creativity, or physical development: All intertwine and impact each other (Roeper, 1982). As Roeper states:

The gifted child's emotions and intellect are different from those of other children his age; ... And they can only be understood if they are examined as a unit ... In short, giftedness is a greater awareness, a greater sensitivity, and a greater ability to understand and transform perceptions into intellectual and emotional experiences (p. 21).

Dabrowski (1964, 1972) studied gifted, creative, and eminent individuals and proposed that sensitivity and emotional intensity were a part of gifted children's psychosocial makeup (Piechowski, 1992). He suggested that gifted children demonstrated different "overexcitabilities" as ways to release emotional tension. A child who squirmed in his or her seat, for example, was releasing tension in a psychomotor mode. Instead of viewing these overexcitabilities as neurotic imbalances, Dabrowski viewed them as positive potentials for further growth, which he termed developmental potential (Piechowski, 1992).

The concept of developmental potential is a central idea in Dabrowski's theory of human development, entitled the Theory of Positive Disintegration. According to Dabrowski, developmental potential is composed of attributes which determine what level of development a person may reach under optimal conditions (Piechowski, 1979). Defining characteristics of developmental potential include talents, special abilities, intelligence, and five forms of psychic overexcitability: psychomotor, sensual, intellectual, imaginal, and emotional. Piechowski (1992) defined the concept:

Dabrowski called them forms of psychic overexcitability to underline the enhancement and intensification of mental activity much beyond the ordinary. Overexcitabilities contribute to the individual's psychological development, and thus their strength can be taken as a measure of developmental potential (p. 287).

Those who work with gifted children often find recognition in these forms of overexcitability because they provide a theoretical model that makes sense of the emotions and behaviors of their students (Piechowski, 1992). Although studies have been done to describe overexcitabilities exhibited in adolescents and adults (Lysy & Piechowski, 1993; Piechowski & Colangelo, 1984; Piechowski, Silverman, & Falk, 1985), little work has described the exhibition of these overexcitabilities in young gifted children. A search of the Educational Resources Information Center (ERIC) database elicited one study (Kitano, 1990) and a search of Dissertation Abstracts revealed one more (Howard, 1994). This study, which describes how Dabrowski's overexcitabilities are exhibited in five young gifted children, addresses the gap in the knowledge base.

The Research Study

Theoretical Framework

A qualitative, multiple case study design was selected for this study. This type of inquiry investigates a particular circumstance within its real-life context and benefits from the prior development of theoretical propositions to guide data collection and analysis (Creswell, 1994; Yin, 1994). The five overexcitabilities identified in Dabrowski's (1964; 1972) Theory of Positive Disintegration formed the theoretical framework guiding data collection and analysis. Piechowski (1979) highlighted the five overexcitabilities identified by Dabrowski as:

Psychomotor Overexcitability. The manifestations of psychomotor excitability are essentially of two kinds; surplus of energy and nervousness. In nervousness, the emotional tension is translated into psychomotor activity such as tics, nail biting, or impulsive behavior...The surplus of energy can be observed in animated gestures and taking on self-imposed tasks...

Sensual Overexcitability. Sensual overexcitability is expressed in heightened experiencing of sensory pleasures and in seeking sensual outlets for inner tension...other manifestations of sensual overexcitability include ...marked interest in clothes and appearance, fondness for jewelry and ornaments...

Intellectual Overexcitability. The manifestations of intellectual overexcitability are associated with an intensified and accelerated activity of the mind. Its strongest expressions have more to do with striving for understanding, probing the unknown, and love of truth than with learning per se or academic achievement...

Imaginational Overexcitability. The presence of imaginational overexcitability can be inferred from frequent distraction, wandering attention, and daydreaming. These occur as a consequence of free play of the imagination. Here, too, belong illusions, animistic thinking, expressive image and metaphor, invention and fantasy...

Emotional Overexcitability. Among the five forms of psychic overexcitability, the manifestations of emotional overexcitability are the most numerous. They include certain characteristic and easily recognizable somatic expressions, extremes of feeling, inhibition, strong affective memory, concern with death, anxieties, fears, feelings of guilt, and depressive and suicidal moods... (Piechowski, 1979, pp. 32-38).

Data Sources and Collection

Data were collected on five young children, ages four, through six from April, 1995, through March, 1996. The five children were purposefully selected for participation in the study to provide examples of different overexcitabilities. Early childhood teachers were asked to identify children from their classrooms who demonstrated the particular characteristics described by Dabrowski.

The researchers randomly selected five of the children suggested. Two of the children were female: Katrina and Heather. Three of the children were male: Gerald, Steven, and Peter.

Researchers were members of the staff of the Ricks Center. Both researchers had graduate degrees in gifted education and were familiar with Dabrowski's theory. They believed that Dabrowski's theory was useful in explaining the thinking and behaving of their students. The goal of this study was to discern if the characteristics described by Dabrowski could be documented in young children.

Data sources included: Individual Educational Plans (IEP's) written for each child, intellectual evaluations completed by psychologists, developmental and behavioral questionnaires completed by parents, interviews with teachers, and observations of students in classrooms.

The first source of data consisted of classroom observations. The researchers' roles in the classroom were as nonparticipant observers. They observed each of the children on four or five separate occasions during the school day and wrote field notes during the observations. These field notes were then transcribed into narrative text used during data analysis.

The second source of data included three types of documents providing background information about each child. The first type of document was an educational evaluation on each child. Each of the children had been given an IQ test (either the Stanford Binet or Wechsler Intelligence Scale for Children) and an achievement test (usually the Kaufman Test of Educational Achievement). Psychologists provided the school with a summary of the test results and observations they had made about the children during testing. The second type of document was a developmental and behavior questionnaire. As a part of the admissions process to the school, all parents completed developmental and behavioral questionnaires. These questionnaires included inquiries about the child's developmental milestones, interests, and abilities. The third type of document was an Individual Educational Plan (IEP) written for each child by his or her classroom teacher. The IEP was the core instructional strategy guiding each child's classroom work during the school year, and included information about each child's present performance level, content area goals, approach to learning, and classroom behavior.

The third source of data included interviews. The researchers interviewed classroom teachers about the behaviors of the five children. Semi-structured interviews which consisted of questions to teachers about children's classroom behavior, and about any parts of the child's I.E.P. that needed clarification were audiotaped and transcribed for analysis.

Data Analysis

As data were collected for this study, they were coded using the behaviors described in Dabrowski's theory as initial themes. Data were organized categorically and chronologically and reviewed repeatedly (Creswell, 1994). If a child exhibited behavior characteristic of overexcitability in three of the five data sources, the child was considered to have a pattern of behavior characteristic of the overexcitability. Systematic data reduction resulted in a narrative description for each child. The narrative descriptions portrayed the themes and patterns discerned in the analysis. Cross-case analysis was used to generate the final narrative description (Creswell, 1994) in an effort to provide an understanding of how the overexcitabilities were exhibited in these five young gifted children.

Because of the naturalistic nature of this study and the small number of participants involved, the research is not generalizable in the rationalistic sense to other situations (Cornett, 1987). However, the transferability of the findings, the appropriate concern for a naturalistic study (Lincoln & Guba, 1985), was enhanced by the triangulation of the data sources.

Results

The children in this study demonstrated behaviors consistent with Dabrowski's theory. The different overexcitabilities were exhibited by the children's individual choices in activities, their reactions to stress, and in their daily actions at home and in the classroom (See Fig. 1: Patterns of Overexcitability).

All five children exhibited behaviors characteristic of three forms of overexcitability: intellectual, imaginal, and emotional. Behaviors characteristic of the other two overexcitabilities, psychomotor and sensual, were exhibited by two of the children: Katrina and Heather.

Intellectual Overexcitability

Intellectual overexcitability is manifested by curiosity, asking probing questions, concentration, problem solving, and theoretical thinking (Piechowski, 1992). In this study, all of the children exhibited some aspects of intellectual overexcitability. An inspection of the data collection matrix indicates Gerald and Peter demonstrated the most behaviors characteristic of this overexcitability.

Curiosity. All five children were curious about how things happen. For example, in the admissions questionnaire, Gerald's parents related, "He is curious about how the world operates and asks many questions once his interest is sparked." Peter was described as "very curious" by his parents. He was reported to ask questions such as, "Mommy, what happens when red and green are mixed together?" "Mommy, what does it mean

when birds fly south for the winter?" and "Why did the car make a funny noise?" Heather's parents stated, "Heather always wants to know why and how, and generally remembers and repeats your explanations." Katrina's parents related:

She is a very curious child. She often asks the question why, then will usually repeat your answer outloud, as if processing it. After that she seems to retain it and will apply the newly learned concept freely.

Asking Probing Questions. Though all of the children were reported to ask the question "Why?", Gerald and Peter asked questions that seemed to encompass the striving for understanding which Piechowski (1979) referred to in describing the overexcitability. For example, Peter's parents reported, "Peter has an interest in almost everything around him. He is like a sponge, just waiting to soak in as much knowledge as possible. He is constantly questioning, probing, wondering..."

Concentration. Of the five children, Gerald's and Peter's behaviors were characteristic of the intense concentration to tasks evident in those possessing intellectual overexcitability. Gerald's parents stated:

Gerald likes to tackle tasks until he has mastered or completed them...When we check out books from the library he wants to read them over and over again until he has them memorized and can 'read' them.

Peter's behavior also demonstrated this commitment to tasks. His teachers reported, "His very long attention span allows Peter to engage in many lengthy and involved activities." His educational evaluations noted, "He displayed intense concentration and was quick to give himself feedback by shaking his head, indicating correct and incorrect answers."

Problem Solving. Four of the children were reported and observed to have excellent problem solving skills: Gerald, Katrina, Steven, and Peter. Teachers indicated that one of Steven's strengths was his "problem-solving and critical thinking skills." Katrina's educational evaluation noted, "Katrina's verbal problem-solving strategies are quite remarkable and easily several years beyond her chronological age." Gerald was reported by his teachers to "use critical thinking and problem solving skills when he constructs elaborate structures with the various blocks." Peter's educational evaluations noted similar problem-solving abilities:

Peter showed high levels of concentration during this subtest and showed he was quite flexible in his thinking by trying alternative approaches to solving problems. He was quite wholistic in his response to Block Design, indicating a wholistic rather than a sequential step-by-step problem-solving approach.

Theoretical Thinking. Gerald and Peter both exhibited behavior that displayed theoretical knowledge and joy in learning for its own sake. Gerald's teachers noted

that he especially enjoyed math problem solving. They stated, "He will complete his math problems and then make up two more to do just for the fun of it." His parents reported in his questionnaire when Gerald was 2½ years old:

Since he has learned to add and subtract, Gerald is always trying to apply simple math to situations in everyday life. He will count the people in a family, then add and subtract for visitors or someone in the family leaving. He counts what his age will be at a certain point and then subtracts to find out what his age would be...

Peter's mother observed similar joy in learning in her son. In his parental questionnaire, completed when he was two years old, his mother related:

Whatever is there to be learned, Peter wants to soak it all up in a hurry. Yesterday, he asked me, "What is 3 minus

5?" We made a number line together with negative numbers so we could figure out the answer. In a matter of minutes, Peter was adding and subtracting negative numbers.

Imaginational Overexcitability

Imaginational overexcitability is characterized by free play of the imagination, such as inventions of fantasy, animistic and imaginative thinking, daydreaming, and dramatic perception, (Piechowski, 1992). All five of the children displayed some behaviors consistent with this overexcitability. Steven, however, exhibited numerous behaviors indicative of imaginational overexcitability.

Fantasy Play. All of the children in this study enjoyed and engaged in fantasy play. Heather's parents noted, for example, that she loved to "dress up, play act

FIGURE 1.
Patterns of Overexcitability.

OVEREXCITABILITY	Gerald	Katrina	Heather	Steven	Peter
Psychomotor					
Rapid Speech		X			
Surplus of Energy		X			
Compulsive Actions		X			
Marked Enthusiasm		X			
Sensual					
Sensory Pleasures			X		
Appreciation of Sensory Experiences			X		
Imaginational					
Imaginative Thinking	X	X	X	X	X
Fantasy Play	X	X	X	X	X
Dramatic Perception		X	X	X	
Animistic Thinking				X	
Daydreaming				X	
Emotional					
Concern for Others	X	X	X	X	X
Timidity and Shyness	X				X
Fear and Anxiety					X
Intensity of Feeling		X			X
Difficulty in Adjusting to New Environments	X				X
Intellectual					
Asking Probing Questions	X		X		X
Problem Solving	X	X		X	X
Curiosity	X	X	X	X	X
Concentration	X		X		X
Theoretical Thinking	X				X

different characters, and make up stories." Since play is one of the chief ways children learn during the early childhood period, this participation in fantasy play is considered a part of their normal development (Bredenkamp, 1987; Parke and Ness, 1988).

Animistic and Imaginative Thinking. All the children were reported and observed to be imaginative. Katrina's parents related, "Katrina possesses a wonderful imagination. One of her favorite activities at home is the dress-up box. She loves to role play and will create her own dialogue." Heather's parents reported, "Heather often tells made-up stories and describes dreams in detail. She will often "see" things in other objects and say, "That cloud looks like a tree." or "That rock looks like a big castle."

Steven displayed most clearly the "free play of the imagination and animistic thinking" referred to by Piocowski (1979, p. 32-38). Whenever centers time was observed in his classroom, Steven was the only one of the five children *always* engaged in imaginative play. One day he reported, "We are playing that we are bears. We are building a shelter for us." On another day, he was pretending to be a bee. On a third morning, he stated, "We are dinosaurs. I am a Tyrannosaurs Rex, grrrr." Even when playing on the computer, Steven had an imaginary story explaining his actions. "We are on a mission," he said to Gerald. "Don't you want to be on a mission?"

Imagination entered into Steven's work in the classroom. As the children engaged in writing, Steven said to his neighbor, "The pencils are exploding electricity." His pencil then became a spaceship. Steven made the sounds of an engine as he flew the pencil spaceship around his table.

Steven's explanations for happenings were also very inventive. One morning, as he was cleaning the paint off a table, he told his teacher, "I have cleaned the table with hot water. The hot water burned the paint off the table." According to his teachers, when Steven's parents picked him up, Steven had discovered a new "treasure" on the playground. Each day he would tell his parents very imaginative stories about what these treasures were and where they were unearthed.

Daydreaming. Steven's wandering attention was observed both in the classroom and at home. During circle time (when the students meet together as a classroom group), he was constantly asked to "come back to the circle" and to "pay attention to his friends." His educational evaluation noted, "Steven had difficulty remaining seated in his chair and needed to be constantly redirected to the task at hand."

Dramatic Perception. Gerald, Katrina, and Steven were reported to enjoy using creative drama as a means of expression. However, Steven's preferred way to experience information appeared to involve using his imagi-

nation. His teachers reported, "Sociodramatic play is a favorite way for Steven to relay information he has learned; he creates scenarios that incorporate this new information."

Emotional Overexcitability

All the children in this study evidenced some of the behaviors characteristic of emotional overexcitability. Emotional overexcitability is indicated by a concern for others, timidity, shyness, fear and anxiety, difficulty of adjustment to new environments, and intensity of feeling. Peter displayed the most behaviors consistent with emotional overexcitability.

Concern for Others. Teachers, parents, and observations noted that all the children were sensitive to the needs of others. Steven, for example, was described as:

...a sensitive boy who is aware of peers and their needs and discomforts. He regularly makes the entire class aware when someone is in need of assistance emotionally or physically.

Katrina was portrayed as, "keenly aware and sensitive to peers' needs." Peter, Heather, and Gerald were similarly characterized by parents and teachers.

Timidity and Shyness. Gerald was described by his examiner as "introverted" and in the classroom he was observed to be quiet and to enter into activities slowly. His classroom teacher noted it that it took him the first half of the school year to become comfortable enough in the classroom to share his extensive information during class discussions.

Peter was also depicted as a quiet, introverted child. His teachers related, "He breaks into big smiles when asked to relay information to the class discussion." They noted, however, that Peter was not likely to contribute unless asked. Peter was described by his teachers as:

...hesitant to do some activities until he has had time to watch and evaluate the process. He then engages in the activity when he feels comfortable...His recall of information shows that he is absorbing the information he is observing.

Fear and Anxiety, Difficulty Adjusting to New Environments. In addition to his timidity, Peter demonstrated fear and anxiety in the classroom on occasion. Like Gerald, he had difficulty in adjusting to new environments. His teachers recounted, "At times he is uncomfortable with the noise and activity level in the classroom." They also noted, "He does not like transition between new situations or classrooms."

Intensity of Feeling. When Peter was afraid or anxious, he demonstrated a very intense level of feeling. He covered his ears and cried when the noise level in the classroom became uncomfortable for him. Peter became so upset at the prospect of attending physical education

in the multi-purpose room that he rarely went. His teachers allowed him to remain with them in the classroom. Peter infrequently attended activities or assemblies involving the whole school, as the noise and number of people made him intensely uncomfortable.

Psychomotor Overexcitability

Psychomotor overexcitability is evidenced by a surplus of energy including marked enthusiasm, rapid speech, pressure for motion, and impulsive actions (Piechowski, 1992). Katrina was the one child in this study whose behaviors indicated these characteristics.

Marked Enthusiasm. Katrina exhibited the marked enthusiasm characteristic of psychomotor excitability. Her psychological examinations noted, "Katrina displayed no hesitancy about entering a new, unfamiliar situation. She easily separated from her mother and approached the testing with curiosity and enthusiasm." Katrina's teachers also reported her enthusiasm. They stated in her I.E.P., "Katrina expresses herself through movement and liveliness during class activities...There are times when Katrina's enthusiasm overwhelms her classmates in various situations."

Rapid Speech. Katrina also displayed a tendency to speak rapidly and to hurry through activities. Her examiner reported:

In her desire to accomplish the task, Katrina responded so quickly she did not plan ahead...Counting gave Katrina some trouble, this was primarily because she counted items out loud faster than she could track them with her eyes.

Surplus of Energy, Impulsive Actions. When Katrina was observed in the classroom, she demonstrated a need for constant motion and engaged in impulsive actions. During a period of thirty minutes, she was first observed poking her friend with a marker. After she was told to stop doing this, she walked over to look at pictures, then went to sit down at the computer. After a minute or two, she got up and went to the bathroom. When she came back, she grabbed her friend by the neck and started to dance with her, yelling, "Chug, chug, choo, choo." Then she went to the table to paint for a few minutes. She got her hands dirty, began running around the room saying, "Green messy—green messy, I say green messy." Next, she went back to the table to paint for another few minutes, then she changed tables to draw. She would choose one marker from the marker box, run over to the table and draw with it, and then run back to the marker box to put it away and get another marker.

Her teachers communicated Katrina's need for motion in her I.E.P. They wrote, "...If an activity is stationary, Katrina's attending time is brief. If the activity

involves movement, she is engaged for a much longer period...She learns best by physically experiencing information."

Sensual Overexcitability

Sensual overexcitability is manifested in the extreme appreciation of a variety of visual, auditory, tactile, olfactory, or oral experience (Ogburn-Colangelo, 1979). Heather evidenced behaviors characteristic of sensual overexcitability, which include enjoying sensory pleasures and using sensual expressions of emotional tension (Piechowski, 1992).

Sensory Pleasures. When Heather was observed in the classroom, she spent her free time sitting in the costume trunk stroking the many different fabrics and putting on the costumes and jewelry. While drawing a picture, she spent time smelling each one of a set of scented magic markers before she decided which one to use. During story time, she sucked her thumb and pulled on her hair, and teachers reported that if she got in trouble in class, she would exhibit those same behaviors. As she wrote a letter to some children in the Arctic, she talked and hummed to herself, exclaiming occasionally, "This is fun."

At lunch she was very concerned with the smell, taste, and texture of her food. During one observation, she related that she could not eat the cheese in her lunch because, "I do not like how it smells."

Appreciation of Sensory Aspects of Experiences. Many of Heather's comments referred to the sensual aspects of an object or place. Her parents reported that she noticed everything going on around her and commented on it. They related that she said things like, "The sky is really blue today" or "Those flowers have a wonderful smell." When the teacher asked about the feelings of one of the characters in a story, she said, "He feels a little twinkle of sorry for the dog." In describing her nanny's dog to the researcher, she stated, "It is very fluffy, with white hair, and tiny."

Discussion

The data analyzed for this study supports the use of Dabrowski's theory as a means of identifying and understanding some aspects of the behavior of young gifted children. According to Dabrowski's theory, there are five stages of emotional development: primary integration, unilevel disintegration, spontaneous multilevel disintegration, organized multilevel disintegration, and secondary integration. At the highest level of development, secondary integration, an individual will develop an authentic hierarchy of values, empathy, and responsibility (Piechowski, 1979). This level of development has

been shown to correspond to Maslow's (1970) highest level of moral development, self-actualization (Piechowski, 1978). Potential for advanced development is strongest when all five forms of overexcitability are evident. The presence of imaginal, intellectual, and emotional overexcitabilities are essential for multi-level development (Ogburn-Colangelo, 1979). All five of the children in this study displayed some behaviors indicative of these three overexcitabilities. Therefore, according to the Theory of Positive Disintegration, these children all evidenced the capacity for advanced development.

Of the three overexcitabilities that must be evident for multi-level development, emotional overexcitability is most often associated with developmental potential, and its presence is necessary for the highest level of development to occur (Ogburn-Colangelo, 1979). The relationship aspect of emotional overexcitability allows the development of the autonomous hierarchy of values, empathy, and responsibility noted by Piechowski (1979). All the children in this study displayed this relational aspect of emotional overexcitability. They demonstrated a strong concern for others and their feelings, compassion, and self-reflection through behaviors and comments. Katrina's parents recounted:

She is hurt very easily when teased or called a name. She is very attuned to other people if they are happy, sad, or angry. She will often ask, "Why is that child crying?" She becomes very upset if she is talked to harshly.

Peter's teachers provided a similar example, "Peter is sensitive to the needs of other children....He has developed many friendships in the classroom and he eagerly becomes involved with friends."

Though all the children exhibited some aspects of three overexcitabilities, most displayed characteristics consistent with one of the overexcitabilities more than the others. One overexcitability is often dominant in an individual (Piechowski, 1979). As Piechowski explains:

The five dimensions can be thought of as the main channels of perceptions—apprehension of the patterns of experience, and of conception—the formation of the images of experiences. They may be likened to color filters through which the various external impingements, and internal stirrings reach the individual" (p. 29).

The type of response to experience depends on the dominant overexcitability in each person. In this study, Gerald exhibited the most behaviors consistent with intellectual overexcitability, Katrina with psychomotor, Heather with sensual, and Steven with imaginal. Peter exhibited many behaviors consistent with both intellectual and emotional overexcitability (See Figure 2: Comparison of the Overexcitability Patterns in the Five Children).

Other Explanations for the Children's Behavior

Some of the characteristics noted in this study could be attributed to other factors. Human behavior, after all, is very complex. Examining young gifted children's behavior through the lens of Dabrowski's theory, however, reminds us that careful consideration and appropriate professional evaluation is necessary before concluding that bright, creative, youngsters have attention deficits, neurotic tendencies, or other behavior problems (Webb, 1993; Lind, 1994).

Bright children have been frequently referred to psychologists or pediatricians because they exhibited certain behaviors such as restlessness, inattention, impulsivity, high activity level, or daydreaming (Lind, 1994; Webb & Latimer, 1993). These behaviors can be indicative of children who have Attention Deficit/Hyperactivity Disorder (ADHD). These traits in young gifted children may look like ADHD, but in many cases, there is a difference. The energy of a gifted child is focused, directed, and intense. Young gifted children are able to concentrate for comparatively long periods of time on subjects that interest them. In contrast, children (both gifted and of the general cohort) who are genuinely ADHD cannot focus their attention on one particular activity for any length of time, even if it is of interest to them. (Clark, 1988; Parke & Ness, 1988; Schectky, 1981; Webb, 1994). Although, Katrina's activeness and Steven's daydreaming might seem to be indicative of ADHD on initial inspection, they both have the ability to pay attention. As illustrated in the initial descriptive incident, Katrina could answer a question about the topic under discussion while playing with her shoe laces. Steven could listen and look out the window. They were gathering information in the form most comfortable for them.

The sensitivity and intensity indicative of emotional overexcitability may be considered by some as neurotic tendencies. The stronger these overexcitabilities are, the less welcome they are among peers and teachers (Piechowski, 1992). Peter, for example, is very sensitive and intense. He reacts strongly to new experiences, locational changes, and noise. However, these intensities of emotion, this sensitivity, and his proneness to riding a roller coaster of emotional extremes, may be seen, as they were by Dabrowski, not as neurotic imbalances, but as a potential for further growth. It is this emotional sensitivity and intensity that fuels the commitment to ethical principles and provides the impetus for advanced development (Dabrowski & Piechowski, 1979).

Sensual overexcitability may look like Sensory Integration Dysfunction. These dysfunctions are disorders of neurological development that hinder not only

children's ability to learn but also their ability to interact effectively with other children and to function appropriately in the classroom (Chan, 1995). Heather's sensory interests, however, did not inhibit her ability to learn or function appropriately in a classroom. Her choices of activities during free time included sensory type activities. She used sense words to describe experiences. She rarely refused to participate in an activity and her classroom interactions were not affected by this behavior.

Of course, gifted children may be both ADHD, have a Sensory Integration Dysfunction, or develop neuroses as they mature. Educators, clinicians, and parents should have an understanding of giftedness and overexcitabilities before they diagnose certain disorders because, as Lind (1994) notes, "The way we treat a child with ADHD is certainly different from the way we treat a child who is overexcitable, highly gifted, or intense."

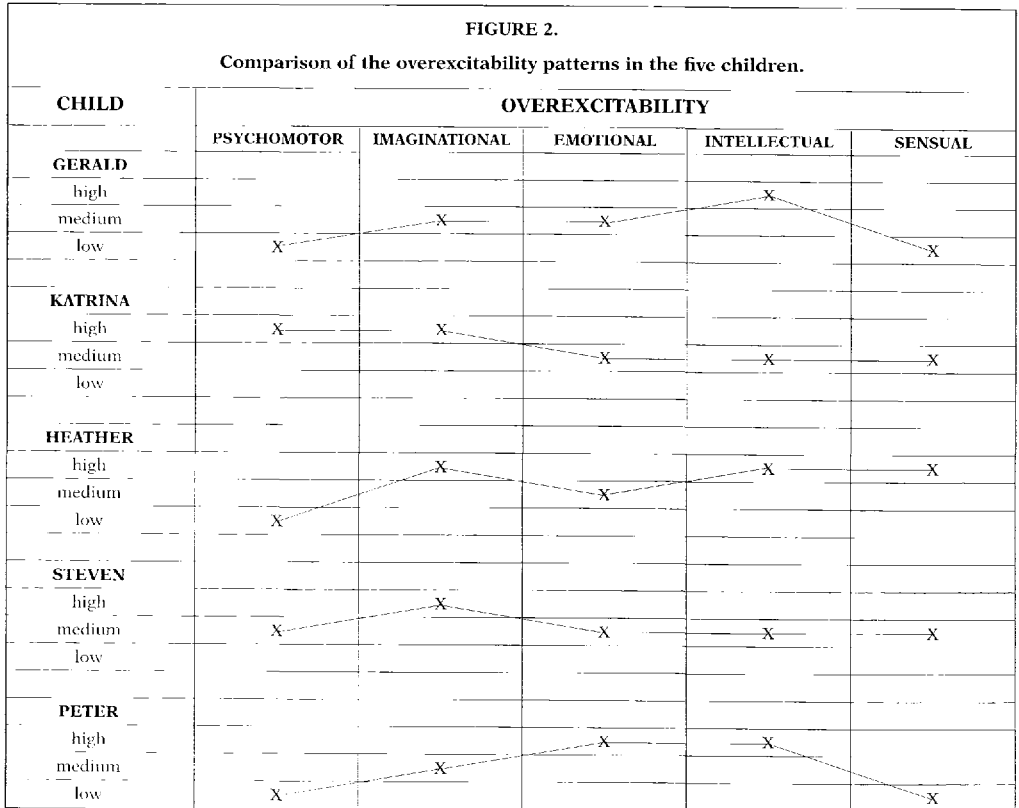
Conclusions

Roeper (1982) related that concern for the psychological development of gifted children needs to become a part of education of the gifted. She wrote:

A child is a total entity; a combination of many characteristics. Emotions cannot be treated separately from intellectual awareness or physical development; all intertwine and influence each other (p. 21).

In order to deal effectively with gifted children, teachers need to understand and work with both the psychological and intellectual facets of giftedness. The concept of developmental potential allows teachers a way of assessing their students' psychological and educational needs. If teachers were made aware of the five overexcitabilities and that their presence is intrinsic to a child's giftedness, they would have additional conceptual

FIGURE 2.
Comparison of the overexcitability patterns in the five children.



tools for understanding the emotional development of advanced children. Behaviors which may have been viewed as indicators of psychological problems are more positively understood as manifestations of advanced development.

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