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The influence of creativity, family and teachers on the attainment of eminence

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Abstract

The influence of creativity, family and teachers on the attainment of eminence was examined in this review of literature. The early childhood and education of many eminent adults was investigated to find the effect of these three factors on their achievement. Recommendations from the findings include early identification and nurturing of creative talent with exposure to many adults early in a child's development.

THE INFLUENCE OF CREATIVITY,
FAMILY AND TEACHERS ON THE
ATTAINMENT OF
EMINENCE

A Graduate Review submitted to the
Division of Education for Gifted
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by

Mary Lynn Espenmiller

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Table of Contents

| | |
|------------------------------------------------------------|----|
| Abstract | iv |
| Introduction | 1 |
| Statement of Purpose | 2 |
| Methodology | 3 |
| Review of the Literature | 4 |
| Eminence: Some Definitions | 4 |
| The Link Between Creativity and Eminence | 8 |
| The Influences of Environment on Attainment of Eminence | 12 |
| Family Influences | 13 |
| Teacher Influences | 18 |
| Conclusions and Recommendations | 22 |
| References | 25 |
| Additional References | 29 |

Abstract

The influence of creativity, family and teachers on the attainment of eminence was examined in this review of literature. The early childhood and education of many eminent adults was investigated to find the effect of these three factors on their achievement.

Recommendations from the findings include early identification and nurturing of creative talent with exposure to many adults early in a child's development.

The Influence of Creativity, Family, and Teachers on the Attainment of Eminence

Introduction to the Problem

Why do some gifted children become productive adults, perhaps even reaching the pinnacle of eminence, while others do not reach their full potentials? Much research has been conducted to determine the childhood traits and environmental conditions of eminent adults. Although many common characteristics generally were discovered, the traits and conditions proved to be only clues (Walberg, 1979). These clues, however, suggest that, if highly eminent, a person will likely have above average IQ (Walberg, 1979), be creative (Redkal, 1979) and will have been raised in a stimulating environment (Radford, 1990). Other sources (Simonton, 1984 and Albert, 1980) indicate that nurturing may improve intelligence and creativity which are known to be inherited traits.

Of the three clues drawn from the research, the one which is most likely to be influenced by people is the environment. A stimulating environment is one that is rich with resources, including people who may be family members, teachers, or other significant adults. It appears to be necessary, for example, for teachers to

provide our gifted and talented students such a stimulating environment, especially if they are not raised in family environments that nurture their talents. Albert (1978) has said, "The transformation of early giftedness into adult eminence is one of the most enthralling and secretive processes of human development" (p. 202). He also asserts that early productivity is the best behavioral index of potential eminence. It would seem important, therefore, that teachers of the gifted and talented realize the importance of early identification and influence on our gifted children and therefore offer them the opportunity to develop their gifts and creativity through their nurturing relationships with talented adults.

Statement of Purpose

The purpose of this review of the literature is to determine, from a review of the literature, the extent to which the eventual productivity of eminent adults was affected by (a) early creative endeavors and/or (b) nurturing by parents or teachers. This paper will answer the following questions: What is meant by eminence? What effect does creativity have on eminence? How much does a

nurturing environment provided by family and teachers affect the development of productive adults?

Methodology

Preparation for this literature review included an examination of works related to the early research on childhood traits of geniuses and famous persons. Cox (1926), Terman (1947), and Gardner's (1994) research on eminent adults piqued an interest in eminent lives. Therefore, the childhood and educational experiences of randomly selected persons in the biography section of Drake University were read in an attempt to discover the influence of schooling. Because there was a limited number of individual biographies of women, Jill Ker Conway's Written by Herself: Autobiographies of American Women was used as a supplemental source. After finding that family members usually had more influence than teachers, additional research was done on family environments. Information was located through the libraries at Drake University and University of Nebraska at Omaha by using the ERIC search strategies. Goertzel and Goertzel's Cradles of Eminence also provided additional information on the childhoods of eminent adults.

Review of the Literature

This review of the literature first examines the concept of eminence from the viewpoint of definitions from the research. A probable link between eminence and creativity is addressed in the second section. The final section examines two main influences of environment on the attainment of eminence, specifically, the influence of family and teachers.

Eminence: Some Definitions

Before one can examine the link between creativity and eminence and the impact of nurturing influences on productive adulthood, one must understand the meaning of eminence. This section of the review will present various theories and definitions of eminence.

According to the literature, the definition of eminence is determined by culture and varies among societies and eras. According to Howley (1987), the Oxford dictionary includes this meaning: "distinguished superiority". Therefore, it would appear that one's eminence depends on superiority and on the distinction gained by that superiority (Howley, 1987). Because eminence is relative to society and zeitgeist, or what is perceived to be superior, a

relative to society and zeitgeist, or what is perceived to be superior, a search of what researchers define as eminence is needed.

One interesting approach to identifying eminence was reported by Redkal (1979), in his examination of the works of Cattell, Galton, and Albert in their studies of eminence/genius. Redkal pointed out that Cattell selected his 1000 eminent persons because they were mentioned in at least two of six biographical dictionaries. He also distinguished between persons of greatness (George Washington), persons of eminence (Napoleon) and persons of genius (Einstein). Galton, as cited by Redkal, distinguished between genius and eminence on the basis of the frequency of existence. He concluded that eminence occurs about once in 4,000, whereas genius occurs only once in a million. Albert, (cited in Redkal, 1979), defined a genius as "... one who produces a large body of work significantly influencing many persons for a number of years, chiefly by requiring an alteration of some basic and widely held assumptions" (p. 840). Albert also found that eminent people tend to begin productive careers earlier than do the less productive.

Goertzel and Goertzel (1962) selected 400 subjects living in the 20th Century based on the number of biographies of each on the

shelves of the Montclair, New Jersey, Public Library. They stated:

"We use the term 'eminent' to describe them because they became important enough to their contemporaries to have books written about them" (p. vii).

Howley (1987) pointed to the restrictive definition of the term eminence as viewed by society:

Because high culture represents a tradition of long duration, it admits new fields slowly. Science, for instance, has dominated much of the intellectual domain of the last three centuries, yet we do not accord eminence too readily to living scientists.

World-renowned scientists who advance pure knowledge are the most likely candidates for eminent status. Rock music, however, does not have anywhere near the same distinction as sciences. It has not been around nearly so long. Therefore, we never accord eminence to rock stars, even posthumously.

Classical violinists, however, partake of the high culture unequivocally. When they become well-known, they are considered eminent automatically. (p. 118)

Walberg (1993) defined eminence as "... remarkable and recognized adult achievements in such fields as the arts, politics,

business, and science" (p. 28). He also points out that research on eminence differs from Bloom's (1985) investigations of young people who exhibited talents early in life in mathematics, and competitive swimming. Such research, he said, includes more varied careers, such as statesmanship and writing, where eminence can be attained during adulthood.

Simonton (1984) presented another view on the difference between genius and eminence by comparing Einstein, Sartre, Joyce, Stravinsky, and Picasso. He postulates that the traditional belief is that these individuals have a common quality of genius and that the way to recognize genius is to look for achievements that influence succeeding generations. He defines genius by accomplishment, and he says, "... defining genius by fame or eminence does not make any profound distinction between creativity and leadership. Eminent creators and eminent leaders merely represent the two main manifestations of genius in history" (p. 2).

In summary, the reviewed literature seems to indicate that a person of eminence must possess a talent or gift held in esteem by society. Second, he or she must be recognized by a society for his or her accomplishment or achievement. Even though it is not the

intention of gifted education to push all students to extreme levels of accomplishments, according to Howley (1987), "... it almost always seeks to cultivate those children who will in fact become eminent" (p. 115). If we agree with the educational climate that 'what's good for gifted is good for regular students', then perhaps what is good for the future eminent child is good for all gifted children.

The Link Between Creativity and Eminence

According to Redkal (1979), highly productive gifted adults show more creative instincts than their productive counterparts. Indeed, some researchers have shown that high academics is not a predictor of productivity, but when coupled with creativity, the chances of achieving eminence increases (Gardner, 1993). As cited by Arieti (1987), Cline, Richards and Abe report that a "... combination of intelligence and creativity brings about much more academic achievement than either alone" (p. 343). It is important, therefore, to review the literature to discover what researchers have concluded concerning the possible links between creativity and eminence.

Several researchers have developed educational models from which they have drawn conclusions about the importance of

creativity in defining genius. Redkal (1979) found that all of these models had a common element: creative ability was associated with the highest achievement. He also developed five points that summarize his findings: (a) The capacity for eminence is based on above average intelligence, (b) creativity is needed for higher level cognitive abilities and achievement, (c) educational decision making based on IQ measures may inhibit the development of eminence, (d) some personality and motivational characteristics may be more important than IQ in achieving eminence, and (e) genius is defined by the creative act which is measured by society.

Arieti (1987) agreed with the research of Redkal (1979) and theorized that there was a link between creativity and achievement. He found that current research showed no consensus on a correlation between intelligence and creativity: "The prevailing opinion is that highly intelligent persons are not necessarily creative" (p. 342). However he theorized that a significant relationship could be found between measures of creativity and measures of achievement.

Howard Gardner (1993) referred to the levels of achievement and the importance of creativity in his paper "Early Giftedness and Later Achievement". He defined gifted as meaning rapid

development. He explained that a youngster performing at the adult level would be prodigious, and that performing at the highest level would merit the term expert or master. A successful person is one who is rewarded by culture. For example, Picasso and Norman Rockwell were both successful, according to Gardner; but only Picasso is thought to be creative. "A genius is an individual whose creativity comes to be thought of as addressing the deepest issues while resonating across the global audience" (Gardner, 1993, p. 178).

If we agree with Redkal, Arieti and Gardner that eminent people have more than intelligence in common, and that one of those vital elements is creative potential; then we must agree that it is important to develop this potential. Simonton (1978) in his article, "The Eminent Genius in History: The Critical Role of Development", discovered seven important influences on the relationship between external events and creative development: formal education, role model availability, fragmentation, zeitgeist, war, civil disturbances, and political instability. For purposes of this study, his discussions of formal education and role model availability seem most pertinent.

Formal education, from Simonton's viewpoint, tends to increase creativity up to a certain point. He found that such experiences

greatly aid the development of creative potential, but excessive amounts may inhibit the development because the student begins to conform to traditional concepts.

Simonton also found that if a genius in his or her developmental period has numerous creative individuals available for emulation, creative potential will increase. The more adult creators a young genius has around him or her, the earlier he or she will begin producing creative works. Simonton concluded, "This creative precociousness then leads to enhanced creative productivity and creative longevity, which in turn raises the eventual level of achieved eminence" (p. 188).

In summary, the reviewed literature seems to show that creativity is a needed factor in reaching the echelon of genius or eminence. Early development of that creativity is important, according to Shaughnessy (1986): "Thus it is quite conceivable that the creative genius is either made or broken during childhood, adolescence, and early adulthood" (p. 187). It is interesting to note that many of our eminent adults also pursued creative endeavors. For example, George Washington Carver (Miller, 1943) was an accomplished artist and musician, and Albert Einstein was a classic

violinist. Since the reviewed literature indicated that creative development tends to rely on the influence of teachers, parents or others early in a person's development, that environment becomes an integral condition. This topic is addressed in the next section.

The Influences of Environment on Attainment of Eminence

Environment has been shown to have a profound effect upon the contributions of productive adults. The environmental factors which appear to play roles in increasing productivity include experiences, resources, birth order and other elements. Thus, as Csikszentmihalyi and Csikszentmihalyi (1993) have warned us ". . . it would seem wise to learn more about how a child's environment can provide the stimulation and the emotional support that are required for the cultivation of both happiness and creativity" (p. 198).

Simonton (1984) emphasized the importance of environmental influences in his discussion of the psychological debate on the nature-nurture controversy. Simonton did not feel that most psychologists today would defend either the nature or nurture issue, but he did agree that human behavior is a function of both. He contended, however, that this is not the important question and that we should rather be concerned with ". . . how nature and nurture

interact and what is their relative importance in forming human character" (p. 25).

One way to answer this question is to examine factors that affect the early development of geniuses. Cox, Galton, and the Goertzels (1962) studied the childhoods of famous adults and found that most came from the upper classes, middle class business or professional homes. Simonton (1984) investigated this factor by concentrating on the three characteristics that have been most thoroughly studied: birth order, orphanhood and family heritage. Thus it would appear that family environments can affect the attainment of eminence.

Family influences.

A family affects the lives of each of its members. Part of this influence is due to genes and some to interaction (Simonton 1984). Positive influences that foster greatness need to be examined in order to use that information to benefit our children. The reviewed literature shows us that the family is very important for a variety of reasons.

Willie (1981) stated that, until the age of 21, the ideal scholar is nurtured, supported and protected in a family. "It would appear

that two full decades of nurturance, support, and unconditional love are necessary to prepare one for a scholarly career of independent inquiry, creative synthesis, and conceptual analysis" (p. 52).

Albert (1978) discovered in his research that the creative student and the achieving student usually come from different types of families. He found that the competent, achieving child appears to come from a conventional family that is more harmonious, serious, structured, and better organized than the creative child's family.

In his research on the relationship of family position to the attainment of eminence, Albert (1980) found that most eminent persons are the first or only sons of above average families, socially, economically and educationally. He dispelled the influence of birth order but stated that "special family position" explains this concept better. According to Albert, the high achiever was treated as 'special' in the family early in his development.

Albert (1978) also was convinced of the importance of familial influence in regard to its effect on the achievement of eminence:

In the main, given sufficient cognitive ability, what leads from competence to creativity is a series of early family and extra-family experiences that permit intellectual and personal

growth and continue to sharpen the cognitive skills and motivational drives of the child. (p. 203)

Goertzel and Goertzel (1962) in their study of eminent persons, described the emotional and intellectual climate of the childhoods of those people. They concluded that virtually every subject had at least one parent who showed a high degree of commitment, ability, or emotional intensity.

According to Howe (1993), we have learned from the early lives of individuals that there are two ways a family can have an effect on the ability of their children to excel. First, pressures can be intense in families which contain child prodigies. Second, the majority of the prodigies come from families in which one of the parents was educated and enthusiastic about education. However, he also raises the question as to ". . . whether it is possible for a child growing up in a family that provides few opportunities to learn and little encouragement to become a prodigy" (p. 89).

Simonton (1984) sought to answer the question: Why does there seem to be so many geniuses clustered in a family, if it is not due to heredity? His answer was that it is an example of role modeling and emulation. Family members or generations may

imitate, be stimulated by or react to these readily available role models. Simonton found that, in one study, 82 percent of the famous persons studied were exposed to many adults early in life and 63 percent were exposed to eminent persons at an early age. Such facts suggested to him that, ". . . the availability of creative role models may be essential to the development of genius" (p. 35).

Mihaly Csikszentmihalyi and Isabella Csikszentmihalyi, in their paper "Family Influences on the Development of Giftedness" (1993), focused on the role of motivation in the development of talent and how the families helped the development of that motivation. They found that in order for a person to make a creative contribution he or she must have great curiosity and perseverance: ". . . there is evidence that the early environment of gifted persons, especially their relationship with their families, has unique characteristics that may account for their unusual intrinsic motivation" (p. 189). The Csikszentmihalyis also asserted that the optimal family environment that will promote creative motivation is one that provides stimulation and support. In addition they raised the question: How will the modern one-parent families provide this stimulation and support?

Wallace and Walberg (1987) studied the childhood environments of forty-two eminent essayists in history. Their findings showed that over half received encouragement from their parents, including high expectations of conduct, and 95% were permitted to explore. They found that 84% of the essayists also received encouragement by others. According to Wallace and Walberg (1987), "The persistence of certain family and school conditions suggests a pattern of supportive environmental influence during the essayists' childhoods." (p. 68)

In summary, the literature shows that a majority of eminent persons were influenced by family. According to Radford (1990), "... the effect of parents on their children lie in the unique environment they provide for each child" (p. 149). Even though these environments are all vastly different in each family, Albert (1980), tells us that these environments are, "... facilitating because they identify relatively early and capitalize on the particular talents of the child" (p. 93).

It also can be noted that many of our eminent adults come from famous families (Goertzel, 1962). The most notable case is

Johann Sebastian Bach who came from a family that had produced professional musicians for many generations. According to Simonton (1984), "Galton counted at least 20 eminent Bachs, 57 important enough to appear in dictionaries of musicians, and well over a hundred having some musical interest or talent" (p. 31).

Teacher influences.

If we agree with Howe (1993) that "... most children are prevented by lack of opportunities and encouragement from achieving more than a small proportion of the thing that all children are born capable of mastering " (p. 89), then we must find opportunities and encouragement for all children so that they may achieve. Many such opportunities and encouragement could be provided by teachers or other significant adults.

Strykowski and Walberg (1983) provided information on the importance of adult influence in their study of psychological traits and childhood environments of eminent writers. They stated in their findings: "Forty-five percent were encouraged by their mothers; 59 percent were encouraged by their fathers; 83 percent were encouraged by teachers; 93 percent were encouraged by others" (p. 105). The large percentage of the eminent writers who reported

being encouraged by teachers is especially interesting to note.

Walberg (1981), in his study of childhood traits and environmental conditions of highly eminent adults, found fourteen intercorrelated traits of eminent persons: eminence percentile, fluid, concentrated, persevering, empirical, versatile, solid, challenging, introverted, neurotic, opportunistic, firm, popular, and vitality. One of the findings of this study showed that only slightly more than half of the 200 men studied had been encouraged by parents, but a solid majority had been encouraged by teachers and other adults.

Roeder (1982) conducted case studies of six gifted and productive youths to search for the special environmental conditions that accompanied their productivity. Three of those cases presented insights on the importance of a teacher in their early development. Craig, one of the selected youths, stated that if his Talented and Gifted Coordinator would not have come along, he wouldn't have thought about all those new ideas. Julie, another youth, called her ninth grade biology teacher her 'mentor'. She said that this teacher made the most difference in her life by making her more curious and showing her ways to explore that curiosity. Aaron, a third youth, shared that third grade was a turning point in his life because his

teacher challenged him by being flexible in adapting to his special needs. These case studies seem to indicate that teachers do have a positive impact and that some of this impact is based on encouraging student exploration while learning. In Roeder's (1982) words, "Teachers can enhance opportunities for the development of creativity by assuring the students that being different in thoughts and actions is not only okay, but is in fact terrific" (p. 28).

Emerick (1992) studied gifted underachievers and the factors which influenced the reversal of their underachievement pattern. An analysis of questionnaire responses and interview data revealed six factors: (a) out-of-school activities, (b) parents, (c) the class, (d) goals associated with grades, (e) the teacher, and (f) self. The teacher and self were identified by all subjects as primary in importance.

Subotnik (1993) studied Hunter School for the Gifted, New York City, to investigate its graduates apparent lack of attainment of eminence in adulthood. She identified the following variables necessary to achieve eminence: (a) personality, which includes a drive to exercise one's talent and to convince other that creativity has been exhibited, (b) special proclivity for a field of study or career, (c) a receptive culture and time in history, (d) access to

mentors and other resources, and (e) family tradition and value.

Subotnik (1992) interviewed Curt Dempster, a progenitor of modern American theatre. She asked Dempster when he recognized his interest in arts. Dempster replied, "A teacher I had . . . recognized my talent in writing and painting as well as my connection to nature. The teacher gave me a book of paintings by Dutch masters. I was stunned with this whole world of creation . . ." (p. 286).

Walberg and Wynne (1993), in their published works, discuss how educators can encourage activities that were displayed by eminent adults. One is to provide support and criticism. Eminent adults, they stated, benefit from both strong support and significant criticism. "Accomplished people can rarely succeed without being stimulated by creations of others and conversations with colleagues. They need to engage and enlist colleagues, allies, helpers, and supporters who may have conflicting visions" (p. 30).

Chicago and Minnesota researchers (Goertzel, 1962) found that teachers are likely to prefer the child who has a high intelligence and low creative ability. Such children are regarded as being serious, ambitious and promising. The literature has shown, however, that

our most productive adults have high creativity (Simonton 1978). Therefore, it seems that teachers need to develop the potential of all, but especially those students who have high creative ability.

There are many examples of teacher influence on gifted people to be found in the literature. Therefore, as Roeder (1982) suggests, teachers must realize the tremendous positive impact they have on the creative/productive development of gifted students.

Conclusions and Recommendations

Many researchers have investigated why some gifted become eminent and others do not. Most have found that the potential genius should have access to numerous role models very early in life. That role model may be a family member, teacher or other significant person. According to Simonton (1978), "Without such role models, the genius may have a lower probability of being precocious, and such precociousness is apparently essential to creative productivity and longevity in adulthood" (p. 193).

Wallace and Walberg (1987) advise us, "Educators and parents have a responsibility to provide the conditions that foster excellence" (p. 65). The reviewed literature indicates that these conditions would include the opportunity to develop creativity and

the support of significant adults. The potential genius/person of eminence must have exposure to role models, supportive parents or caring teachers in order to fully develop his or her talents.

A child who has a talent, a gift or is highly intelligent must first be identified in order to develop his or her potential. That recognition must come from a parent, teacher or other interested adult. Once the gift is identified, then adult influence may begin. Identification and influence must be accomplished by a significant adult, who may be a family member, teacher or mentor.

Many children who come from stimulating environments have their gift or talent informally identified early in their childhood by an adult. Influence in the form of lessons, visits to museums, advanced academia, stimulation by other gifted people, usually begins by the time the child enters school. However, for those students who come from disadvantaged homes or environments that do not fully aid the child in realizing his or her potential, a person outside the family environment must take the responsibility for identification and/or influence. Our schools and our teachers must recognize the talents and gifts of students at an early age and they must become aware that such recognition is not based only on high

intelligence. Such restrictive practice easily become a barrier to highly creative children.

This literature review has demonstrated the importance of creativity in the pursuit of high achievement and accomplishment. School and teachers must learn to do a better job of recognizing and developing creativity if our society is to produce eminent adults.

Therefore, it is important that all teachers should assume the responsibility for influencing gifted children by maximizing the availability of resources to them. This is especially true of teachers of the gifted and talented, who must take such a role seriously. They must fully understand the importance of providing adult resources in order to create an opportunity for our gifted and talented students to reach their full potential. In that way, perhaps, they can then embark on the road to successful achievement and eminence.

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