The Early Lives of Highly Creative Persons: The Influence of the Complex Family

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Over the last 50 years, theoretical, speculative, and empirical scholarship has examined the influence of early family context on subsequent accomplishments in children of high ability. Building upon 40 years of creativity literature focusing on optimal experience, this exploratory study applied the Complex Family Framework in a systematic analysis of creative adults’ recollections of their early family lives. The study identifies evidence of the interplay of Integration and Differentiation, a catalyst for individual optimal experience, in the families of 9 creative exemplars who have made significant contributions to contemporary culture. Five participants represented the Arts and Humanities, three the Social Sciences, and one the Physical Sciences. The study demonstrates the utility of the Complex Family Framework in understanding families’ contributions to children’s later creative achievement.

Over the last 50 years, much theoretical, speculative, and empirical scholarship has described the influence of early family context on subsequent accomplishments in children of high ability (e.g., Albert, 1971, 1980, 1994; Albert & Runco, 1986; Amabile, 1989, 1996; Bloom, 1985; Colangelo, 1988; Goerz, Goertzel, & Goertzel, 1978; Helson, 1968; McCurdy, 1960; Milgram & Hong, 1999; Runco & Albert, 2005; Simonton, 1984; Walberg, 1981; Walberg et al., 1996).

Although several studies have investigated the relationship between family context and significant achievement in adulthood, few have drawn upon existing models to provide a conceptual framework for understanding how families can contribute to children’s later creative achievement. The present study explores the utility of the Complex Family Framework (Csikszentmihalyi, Rathunde, & Whalen, 1993) in illuminating that relationship. The framework is particularly promising because it has helped researchers empirically identify a specific pathway toward the development of talent during adolescence (Csikszentmihalyi et al., 1993; Rathunde & Csikszentmihalyi, 1991).

This study builds upon 40 years of creativity literature focusing on optimal experience. Seminal studies include Getzels and Csikszentmihalyi’s (1976) longitudinal study of 290 artists; a 4-year longitudinal study of talented teenagers (Csikszentmihalyi & Larson, 1984, 1987; Csikszentmihalyi et al., 1993); a study of 91 persons whose creative achievements continued throughout later life (Csikszentmihalyi, 1996); and studies of vital engagement in adulthood (Nakamura, 2001, 2002). A recurring finding in these publications was that complexity is central to the lives of creative persons.

COMPLEXITY, COMPLEX FAMILIES, AND FLOW

Since the 1970s, terms such as complexity and complexity theory have been widely used with differing perspectives and emphases in the social sciences, engineering, computer science, and the study of chaos. It is important to distinguish complex from complicated,
which commonly implies a dysfunctional lack of organization. As it has developed over several decades of optimal experience research, Csikszentmihalyi’s theory of complexity shares chaos theory’s premise that an order underlies the apparent disorder of all enduring systems. This order is characterized by two complementary, but often seemingly oppositional, processes: differentiation and integration. It is the ongoing processes of differentiation and integration that account for the ontogenesis of all living things, “from the simplest amoeba to the most sophisticated human creature” (Csikszentmihalyi, 1996, p. 362). All complex systems, whether biological, cognitive, familial, or societal (Rathunde & Csikszentmihalyi, 1991), seek differentiation: movement toward uniqueness, seeking change by taking on new parts and functions. Within a family, individuals differentiate by constructing a unique identity and working toward personal goals (Csikszentmihalyi & Rochberg-Halton, 1981; Damon, 1983). Complex systems also seek integration: working to maintain continuity and stability. Within an integrated family, members provide emotional support, working to maintain relationships by investing in common goals, traditions, and values (Rathunde & Csikszentmihalyi, 1991). In such a family, clear rules, limits, and expectations provide structures that minimize chaos.

Within an optimized complex system, these ongoing processes of differentiation and integration keep the system healthy and growing. The complexity dialectic, similar to Baldwin’s (1911) developmental theory, suggests that a system’s growth results from the ongoing syntheses of these two opposing, but complementary, processes.

When a person within the complex family feels anxiety, “creating order through a higher level of integration becomes a conscious goal; when faced with boredom, seeking change through differentiation becomes the aim” (Rathunde & Csikszentmihalyi, 2008, p. 470). It is in the space between anxiety and boredom that the person is poised to experience flow, a state of complete engagement in an activity. Within a complex family, the integration force provides a consistently cohesive, supportive family context, an optimal backdrop for flow experiences in the daily lives of family members. The complex family’s ongoing encouragement of differentiation results in family members experiencing flow as a result of their investing attention in activities that, over time, demand increasing skill and challenge.

The simultaneous forces of order and novelty result in a coordinated stabilizing and broadening of attention (Fredrickson, 1998). From early childhood on, creative persons find deep enjoyment in an area of talent or skill. These rewarding experiences motivate them to replicate the enjoyment and fulfillment that the activity brings, which leads to the development of vital engagement with the endeavor: “Artists become fascinated by painting, musicians by music, and scientists by the pursuit of elusive relationships in Nature” (Csikszentmihalyi & Csikszentmihalyi, 1993, p. 188). Sustained over long periods of time, the person’s talent, skill, knowledge, and expertise, if channeled and accepted by established gatekeepers, might result in “breakthroughs,” significant creative contributions to the culture or a specific domain (Csikszentmihalyi, 1999).

Several theorists and researchers have proposed frameworks in which optimal functioning within family and individual systems is explained by the presence of opposing attributes and processes. A few examples include demandingness and responsiveness (Baumrind, 1977, 1989), ego control and ego resiliency (Block & Block, 1980), love and discipline (Damon, 1983; Irwin, 1987; Maccoby & Martin, 1983), agency and communion (Bakan, 1966), psychological safety and psychological freedom (Rogers, 1954), connection and individuality (Grotevant & Cooper, 1983), and affect enabling and cognitive enabling (Hauser, 1991). Complexity theory’s processes of integration and differentiation, however, form the only dialectical framework that has been empirically demonstrated to foster creativity in families and to facilitate the development of creativity across the lifespan (Csikszentmihalyi & Rathunde, 1998; Rathunde & Csikszentmihalyi, 2008).

**EMPIRICAL RESEARCH ON COMPLEX FAMILIES**

Drawing data from a 4-year longitudinal study of 200 adolescents with superior intellectual, physical, and/or artistic talent (for a detailed discussion, see Csikszentmihalyi et al., 1993), Rathunde (1988) sought to better understand the role of flow in the family context by investigating participants’ subjective interpretations of family situations. For the study of 200 adolescents, Rathunde developed the 24-item Complex Family Questionnaire. That instrument, in addition to interviews, the Experience Sampling Method (ESM) (Csikszentmihalyi & Larson, 1984, 1987), and systematic matching of children’s perceptions with their parents’ independently measured perceptions, was used to explore the families’ role in the teenagers’ development of their abilities.

Factor analysis of the Complex Family Questionnaire data identified two factors, each comprising two lower-order factors: support (comprised of harmony and help) and stimulation (comprised of involvement and freedom; Rathunde & Csikszentmihalyi, 1991). Complex families were high on both stimulation and support; differentiated families were high on stimulation and low on support;
integrated families were low on stimulation, but high on support; simple families were low on both dimensions. Of the four family types, teens from complex families reported the greatest number of positive home experiences; greater numbers of optimal experiences while spending time with their families than in other contexts; and the highest level of positive feelings when working in the area of their talent (e.g., mathematics, science, music, athletics, or art) or on schoolwork, regardless of location. Specific positive subjective rewards these teens reported included feeling happy, cheerful, alert, excited, sociable, and open, as well as experiencing greater cognitive efficiency, motivation, and self-esteem. Compared to participants in the other groups, the teens from the complex families more often reported living up to their own and others’ expectations and doing projects important to themselves and the fulfillment of their goals. Moreover, parents in complex families were frequently viewed as helpful teachers; children from differentiated families saw their parents as pressuring them to achieve (Rathunde & Csikszentmihalyi, 1991).

Rathunde’s findings demonstrated that family context facilitates flow experiences in adolescents by consistently providing experiences that balance choice, clarity, centering, commitment, and challenge. As Rathunde and Csikszentmihalyi (1991) described the process, within complex families, many small, experiential “building blocks” over time “accumulate toward positive subjective rewards” (pp. 158–159).

METHOD

With respect to the development of creativity (Sawyer et al., 2003), few attempts have been made to understand the family as an early flow-producing context for highly accomplished, creative persons. This exploratory study applies the Complex Family Framework in the systematic analysis of creative adults’ recollections of their early family lives and experiences with flow.

Data for the present study were gathered from verbatim transcripts of semistructured interviews conducted for the Creativity in Later Life Study (Csikszentmihalyi, 1996). Although not originally generated solely for the purpose of examining family influence on later creativity, the transcripts provide rich and powerful descriptions and interpretations of the participants’ families of origin. Complexity theory contributed the two concepts—integration and differentiation—that served as broad initial categories for coding all portions of the transcripts related to early family life. First, all portions of the transcripts describing participants’ early lives within their families of origin were identified. Second, Rathunde’s (1989) descriptors were used to guide review and annotation of transcripts: examples of family harmony and help, as well as descriptions involving the concepts of belongingness, security, rules, values, and synonymous ideas, were marked as evidence of integration. Evidence of differentiation included stimulating and challenging children to develop existing skills (or to take on new ones), and modeling perseverance and achievement-producing work habits. All excerpts illustrating participants demonstrating autonomy from specific family values or expectations were also included.

Excerpts were organized in a word processing program and reviewed multiple times for best fit as new, more refined categories were generated in answer to the question, “What specific markers of integration and differentiation are present in the life stories of the participants?” This framework permitted us to identify four specific markers of integration within the families described: (a) supporting children’s existing aptitudes and interests; (b) spending time together; (c) teaching core values and behavioral boundaries; and (d) demonstrating tolerance for failure. The analysis also yielded four markers of differentiation: (a) coping with difficult circumstances; (b) stimulating new interests and challenges; (c) modeling habits of creativity; (d) and building a demographically and psychologically diverse family unit. Table 1 illustrates the distribution of markers in the transcripts. Absence of a marker indicates only that no reference was made in the transcript to that concept, not that the trait was absent within the participant’s family.

We do not claim to know definitively that the present study measures the degree of complexity in the families described or that all nine of these families are, in fact, complex. Our study is limited to descriptions of subjective experience generated voluntarily while the participants reflected on a range of topics, including direct questions about early family life. However, based upon the theoretical premise that all complex systems are highly integrated and differentiated, and upon the studies of optimal experience demonstrating that complexity is central to the lives of creative persons, we did anticipate that the Complex Family Framework would provide a useful tool for plumbing these interviews for markers of complexity.

PARTICIPANTS

The sample consisted of 9 of the 91 participants in the Creativity in Later Life Study (Csikszentmihalyi, 1996). All 91 participants made a significant impact upon a major cultural domain, and continued active involvement in that or a different domain in later life. The present sample was chosen because it provided a varied range of backgrounds. Given the exploratory nature of the study, we considered the sample size adequate
because during the coding process, the same markers recurred across the corpus of 9 interview transcripts, indicating that we had sampled until redundancy. Participants included one male social scientist, an author and developer of social programs who chose to maintain anonymity, along with eight additional participants (5 male and 3 female) who granted consent for identification by name when quoted. The sample, although small, represents a balance of nationalities (5 American-born, 4 immigrants to the United States) and domains (5 from the Arts and Humanities, 3 from the Social Sciences, 1 from the Physical Sciences). The 8 we can identify include (1) Wayne Booth, literary critic and author of such seminal works as *The Rhetoric of Fiction* and *The Company We Keep* (2) John Hope Franklin, African American historian best known for his scholarship about slavery and the Civil War; (3) Oscar Peterson, world-renowned jazz pianist and composer; (4) Ellen Lanyon, painter and art educator; (5) Nina Holton, Austrian-born sculptor, whose work has been widely exhibited at international galleries; (6) Hazel Henderson, economist and scholar well known for her contributions to the study of sustainable economies; (7) Freeman Dyson, physicist and author of books and essays about the future of the universe; and (8) Robertson Davies, Canadian novelist and playwright.

### THE INTERVIEWS

In spite of the many ways in which the interview participants in the present study differ on particulars, all provide evidence of early family contexts that are both integrated and differentiated. Through the qualitative analysis of transcripts, we constructed a depiction of what these apparent opposites look and feel like when experienced simultaneously in a family context.

#### Integration

Rathunde’s analysis (1989) suggested that integration can be best understood as the coexistence of harmony and help, qualities that participant’s families maintained in environments where each individual felt a strong sense of belongingness, value, and security. Two themes emerged in almost every interview. Participants described warm, caring parents who maintained family harmony by enforcing consistent values, reasonably stable routines, and active rule-setting. These rules, they say, saved them confusion and facilitated good decision-making. As important as these behavioral boundaries, however, was families’ unconditional emotional support for their children’s personal interests and aptitudes. The four specific themes that emerged as markers of

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*Note. I–1 = supporting existing interests and aptitudes; I–2 = spending time together; I–3 = teaching core values/setting rules; I–4 = tolerating failure; D–1 = dealing with difficult circumstances; D–2 = stimulating new interests and challenges; D–3 = modeling habits of creativity; D–4 = building a demographically diverse family.*
integration in participants’ lived experience are described in the following.

**Supporting children’s existing aptitudes and interests.** The transcripts provided ample illustrations of how, once parents recognized an interest or talent in their children, they cultivated integration by providing material, verbal, and emotional support and encouragement. In answer to a question about what makes a fulfilling and effective teaching career, Wayne Booth named authentic vitality, optimism, and strength of ego sufficient to “get people really to express what they think.” Booth directly attributed his development of ego sufficient to “get people really to express what they think” to his parents’ providing opportunities to go places that fed his concrete forms of help primarily consisted of his parents’ providing opportunities to go places that fed his interests. Trying to describe his parents, he said

- They were very generous to me because I showed an aptitude for education, and so they helped me get a lot of education. And also, they helped me to get a kind of grounding in music and literature, and so on and so forth, by their example and their advice, and just by sending me where that was to be found.

- Asked if his parents helped facilitate his development because he showed aptitude, or if they attempted to impose their view of what he should be, Davies emphasized that he demonstrated aptitude first, and his parents responded by actively seeking ways to help: “No. No, they weren’t imposing their view. They did recognize what was—well, what I was and what my brothers were and what we could do and wondering in what directions we could be helped.”

Oscar Peterson’s experiences provide another example of parents offering more help than parental control. He was asked if his parents introduced him to jazz:

- Peterson: No, I was busy pursuing that for myself [Both laugh].
- Interviewer: Was that something they tried to keep you away from because . . .
- Peterson: No, they didn’t, not in any way. They tried to keep me in bed at night, but [both laugh] they never prevented me or inhibited me listening to jazz in any way.

John Hope Franklin’s narrative provided a reminder that for many of the participants, most of whom grew up during the Depression, material resources were scarce. He suggested that affective forms of support can compensate for lack of material ones: “I got all the encouragement that I needed from them. What they didn’t have in the way of money they made up in the way of encouragement.” Ellen Lanyon’s family illustrates other ways creative interests could be fed without adequate financial resources, and demonstrates that help can come from extended family, not only from parents:

- I grew up when, you know, every weekend the Metropolitan Opera was on the radio. It was a standard thing that the family would listen to. So, everything that we could have we had, even though funding was not there. Now, ah, but my father’s sister was a business woman, and she had the means to send my sister and I to Saturday school at the Art Institute when we were kids, you know, maybe eight years old or something. So, that my training and my familiarity with the museum and the school was very early.

Lanyon expressed an opinion that synthesized what all these examples suggest about the relationship between family support and creativity:

- It’s very hard to describe what they all were, but one of the things they were, which I very, very greatly appreciate:
do something no matter what it might be, it helps that child to become more convinced that this is something they can do, and it gives you confidence. And I think that is so important in the making of a…especially making a creative person…If that kind of support comes gently and is not a force that one rebels against, then it’s a very positive thing, I think.

Even though these selections indicate the support and faith that the family extended to these participants, and were therefore coded as examples of the underlying concept of integration, they also clearly indicate that confidence and harmony did not constitute passive support, but active efforts to identify and build upon the child’s budding interest.

Spending time together. Families build integration as a result of something quite uncomplicated: time spent together. Lanyon’s recollection of her family listening to opera together on the radio is an illustration. It is easy to infer how some of these activities shaped professional choices. Davies, the novelist, “Grew up in a talking family where there was endless conversation, endless talk about politics and about the theater. My parents were both mad for the theater and music, and all that sort of thing and that was very lucky for me.” Freeman Dyson singled out his sister as someone with whom he most enjoyed spending time: “She is completely unscientific…but she is intelligent and enjoys most of the things that I enjoy.” This companionship eventually served a professional purpose, his sister figuring into his creative achievement. He noted that except for his more technical works in physics, he would begin projects by imagining he was composing a letter to her.

Other narratives compellingly demonstrate that time spent together shaped positive recollections of childhood and harmony. Dyson recalled several activities that built a sense of closeness with his mother:

My mother and I were very close. We used to go every month to Kew Gardens and look at the latest flowers. They would always have fresh displays of flowers and bushes and the gardens all year round, and we would go to art museums…and generally she was the stronger cultural influence on me…It is no question that I was very fortunate.

Reflecting on time spent with his own family, Oscar Peterson observed a trend toward less integration in today’s families compared to those in the era in which he grew up:

It was much—families were much more closely knit then. And most of my time was spent with the family.

I had the odd friends outside in the very young years, later on in high school of course I had friends. But I still made a big thing about my home life. It was always my family that was important. I don’t see that as much today, as you well realize. Perhaps one of the problems today.

Teaching core values and behavioral boundaries. Parents cultivate family integration in another way: by holding their children responsible for their actions. These families provide a core set of values—ethical, moral, religious, intellectual, aesthetic, or some combination—that define the boundaries of individual family members’ behavior. These stable conditions minimize chaos. Research has suggested that the message “be responsible, independent, and mature…filtered through a context that is also supportive and reliable” (Rathunde & Csikszentmihalyi, 1991, p. 155) makes everyday routines more enjoyable and frees children to invest psychic energy in creative activity rather than feelings of insecurity, regret for bad choices, poor self-image, or other negative emotions.

Religious faith is one manifestation of a core value. Franklin described the home where he grew up as “moderate religious.” Along with familial religious traditions came lessons about “certain elements of honesty and integrity.” Davies felt a more specific religious guidance:

I was brought up—I would not say strictly, because there was nothing harsh about it—but my parents brought me up in a kind of religious atmosphere so that I had a very profound respect for truth, and I was perpetually being reminded, because my parents were very great Bible-quoters, that God is not mocked.

Some of the families centered their values around political and social ideas. The social scientist in our sample provided an illustration:

My father died early. My mother was a very strong, independent-minded person. She had ideas which, for her time, were very advanced, about women’s rights and about race relations. She had very strong standards of conduct but they didn’t fit some of the conventional hypocrisies of the time. For example, she simply would not allow us to look down on any other race or any other group. It just wasn’t permitted in our family. We weren’t even conscious of it. Years and years later my brother and I would talk about it and realize that we both had exactly the same attitudes. She had instilled those attitudes early.

A content area or skill can also be inculcated as a family value, through modeling (as in the case of Lanyon and Davies), or through direct persuasion.
Franklin offered an example: “And so I said in the Life of Learning, in that essay, my parents had an enormous influence on my intellectual as well as my social development. I learned from them the value of studying and reading and that sort of thing.”

When asked “In what way do you think your family background was special in helping you to become the person you are?” Oscar Peterson offered examples that shaped him musically, as well as personally.

Well, I think my family gave me—first of all, the love of music. They helped me appreciate some of the music that I was hearing, and that of course catapulted me into the medium. But they also gave me a—a set of personal rules to live by, that kept me from getting into some of the troubles that musicians were getting into at that time.

The interviewer pursued a line of questioning about musicians’ “ troubles,” noting that “Especially several decades ago, jazz music was associated to some degree with drugs…” Peterson pointed out that his parents’ teachings prevented him from making certain choices. Peterson’s remark illustrates how the thought of disappointing or hurting family members by acting contrary to their values guided a decision. His description suggested that he rejected what he perceived as unnecessary risk-taking by considering two consequences: (a) loss of family harmony and acceptance and (b) potential harm to his father’s well-being.

They let me know they would never tolerate or accept that. And I knew that all—I remember telling a, I won’t call any names, but a very famous musician once who offered me cocaine—I guess it was cocaine—no heroin, excuse me. As he called it, “a hit with heroin.” And I told him quite frankly, I said, I would never be able to go home if I did this. And that’s the thing that terrified me, more than anything else. I didn’t, I couldn’t figure out what I would tell my mother, far less my father, if I came home with a habit. There would be no reason for it. It wasn’t a fear of what he would do to me, it was a fear of—maybe destroying him altogether. I didn’t know how I could ever explain this to him.

This value system helped Peterson navigate peer pressure in his profession, and he interpreted his father’s expectations as protecting his creativity.

John Hope Franklin also interpreted his family’s guidance and rule-setting as a help, not a hindrance. He recalled, “I didn’t have to wonder later whether I should or should not do certain things. It was part of my being because of their influence.”

Learning to tolerate failure. The parents of these interviewees set high expectations for their children, but they balanced their expectations with support. We see this in how the parents reacted to their children’s crises of confidence or outright failure. Oscar Peterson described such a situation as he was developing his musical ability.

Peterson: The first time I heard Art Tatum it almost crippled me! Mentally and physically [Both chuckle].

Interviewer: How old were you then?

Peterson: Oh God. I’m not sure exactly what age I was. I know I was in high school and my dad brought this friend, who happened to be a musician, home with him. And he had, they had this record of Art Tatum’s “Tiger Rag.” And played it for me. And that sort of stopped my career for a month or two.

Interviewer: It really did? You didn’t—

Peterson: Yes, it did. I just decided to give it up. I said, “If someone can play that well, and that inventively, there isn’t room for me.” And you know, you get into that self-pity area, which I had to fight my way out of, with the help of my father, who encouraged me.

Interviewer: Wow. So he said—what did your father say to you? What did he say?

Peterson: Well, his logic was, “He did it, why can’t you?” You know, “You’re both human beings, if he found an avenue, you can find one.”

Davies’ parents provided support by accepting the possibility that their children might not succeed in one domain, and reminding them that they could succeed in others. Davies said,

They were understanding about failures. You see, as a young man, that is, a boy, I was an absolute fool at mathematics and was perpetually failing my examinations in school, and I remember one time, I was very downcast because I had done dreadfully badly on that examination, and my father gave me some advice which was terribly immoral but very comforting. He said, “Don’t worry too much about mathematics. As you grow older, you will find that there are always people who’ll do it for you, for money. And because they’re interested in getting the right answer they’re usually honest” [both laugh]. And that was it because he was a terrible mathematician himself, but was very successful in business because he was awfully good at people, and he chose very good helpers, and assistants, and associates.

Franklin’s mother used to tell him regularly, “Now, you just do your best, and understand this, the angels cannot do any better than their best!”
Differentiation

Within a differentiated family, members are encouraged to “be themselves” by seeking out new challenges and opportunities. They are encouraged to develop an identity independent of others in the family. The participant narratives demonstrate that both the principle of integration, with its emphasis on harmony and shared values, and differentiation, with its emphasis on autonomy, can be active within a family system. One need not preclude the other: They can work together as a complex mechanism, one part counter-balancing the other. The following section explores, in detail, the four specific markers of differentiation exhibited by families in the present sample, with attention to the ways they coexisted with the integrative aspects of family life already described. They are (a) coping with difficult circumstances; (b) stimulating new interests and challenges; (c) modeling habits of creativity; and (d) building a demographically and psychologically diverse family unit.

_Coping with difficult circumstances._ A concept central to differentiation is the pursuit of challenge. Research describes parents in differentiated families as people who not only permit or facilitate opportunity, but also exercise their differentiation and creative achievement. Participants’ coping with difficult circumstances; (b) stimulating new interests and challenges; (c) modeling habits of creativity; and (d) building a demographically and psychologically diverse family unit.

Although powerless to change the macroeconomic environment, participants’ parents did actively steer the family’s response to Depression-era conditions. Most of these participants experienced no lack of harmony or emotional support as a result of material deprivation. Franklin described his family’s tenuous income as supplemented by ample affective support:

What you have to understand is that a black lawyer in Oklahoma in the Depression years is as unemployed as an unemployed street sweeper. I mean all of his clients were not employed; therefore, he did not get any money. We lost our home and all of that sort of thing during the Depression. I had to work in college. I couldn’t have stayed there without working. They did what they could but that was not all that much and I understood that. As a matter of fact, I was 16 when I went to college and I understood the limits. And I got all the encouragement that I needed from them. What they didn’t have in the way of money they made up in the way of encouragement. You know? And I was stimulated to do my best.

Similarly, Lanyon’s family of “working class people” had abundant appreciation for music and art, even though they “weren’t a family that had the means to have leisure to travel or go to museums or go to the opera or ballet..... There simply wasn’t the money. But there was encouragement in that direction. I knew that it existed.”

A question asked of Oscar Peterson illustrates differentiation-seeking through exploration and openness to new experience, even within a Depression-era context. He suggested that his parents encouraged differentiation amid scarce material resources by being both tolerant of childhood curiosity and aware of their roles as rule-makers.

Interviewer: How did you spend most of your free time as a child?

Peterson: Getting into mischief. [Both laugh.] I was mischievous. I admit it. I was always seeking projects to do, you know finding out what made things work, things I shouldn’t be fooling with. You know. I remember destroying a phonograph once, under the guise of repairing it. And things like that. I... I wasn’t a bad child, in the sense that I’d go out and start fires or beat up neighborhood kids or anything like that. But I was always into little nooks and crannies, you know, getting my nose into things it shouldn’t have been into. I was a very curious child.

Interviewer: How did your parents respond? Let’s say you’ve taken apart their phonograph. Was it—were they angry or were they like—what would they do?
Peterson: Well, they didn’t think I was another Ben Franklin. I’ll tell you that. [Both chuckle.] They didn’t react too well to it. They—they were most upset. Because don’t forget those were the poverty years. And that was a tremendous luxury just having a phonograph. So you can figure the rest of that out.

The family’s financial circumstances necessitated certain rules about preserving scarce resources and making material objects last, but lack of money also opened opportunities for Peterson to explore his surroundings and amuse himself.

Holton’s family illustrates a possible exception to the rule that the participants’ parents encouraged their children to strive beyond their financial or social limitations:

They were a very warm family. But. My family, you know, left during the Hitler regime. . . . I was very young and therefore I had the possibility to enter this new country, this new life, while they could not, and therefore they were very frightened by it . . . And I think also, refugee families, I believe by and large, want their children to succeed in a material way, so that they will not have wants. And maybe to support them a little bit in the old age, quite rightly, you know, but above all that their children are secure somewhere. The idea of having a girl who would go off to some uncertain future, seemed to them utterly loony and terrifying, you see? And I think most refugee families who have a background like that would feel that way, perhaps.

Holton’s story may exemplify a case of family warmth and protectiveness inhibiting openness to new experience, the unique physical and financial risks of the time outweighing their desire to see their daughter maximize her creative opportunities. Desire for economic security and, at that time, perhaps Holton’s gender, also would have restricted the family’s receptiveness to her desire to move to New York City to attend a theatrical school; it was a decision that would differentiate their daughter from the family in ways that the family could perceive as intolerable. Yet, although her family refused to offer financial support, they did not forbid her to act on her decision.

Stimulating new interests and challenges. In our analysis, we distinguish between providing emotional support for existing interests and aptitudes, a marker of integration, and encouraging children to try new challenges or aspire to a higher level of skill or achievement, a marker of differentiation. Our participants’ families overtly encouraged each other to grow. Peterson’s father told him to “find a way” in reaction to his son’s crisis of self-doubt. Many of the families insisted that the children read, write, and work hard. Dyson pointed out that understanding children’s interests, even those most incompatible with the parents’ own, can be a less direct, but still an effective, motivator: “They were both of them such strong characters. And yet still they left me complete freedom to do my stuff which was science. And neither of them was a scientist but they understood what it was about.” Wayne Booth’s grandmother encouraged a technique whereby Booth could record achievements and aspirations: keeping a diary at the age of 14, “Just a regular journal . . . not a small diary but a discursive diary. My grandmother gave it to me. ‘You should keep a journal, because what you do is important.’ And I did . . . As if that were, you know—I gotta have achievements.”

For Booth, a particularly strong motivation to rise to a challenge resulted from a difficult family circumstance. Booth’s father died when he was six, a loss provoking what Booth interpreted as an inevitable move toward autonomy and questioning. The family’s Mormon faith was his first target: “Though initially, all my family rationalized the death of my father as in God’s plan, I am sure that it set up a context of inquiry and doubt.” The directed challenge-provocation on the part of Booth’s mother manifested in his “mother always saying, ‘You’ve got to be the man of the house now.’ Which is another pressure to . . . achieve. ‘You’ve got to be . . . your sister’s father now.’ I had . . . a sister 5 years younger than I.”

Apparently, by then, Booth already had an intrinsic drive to complete his father’s goal. He recalled “a kind of sense that I had to live my father’s life. He died at the age of 35 just, without having—he had just finished his BA and had taught one year, when he died. So my father’s life had to be lived by me.” He recalled his father’s death as devastating, leaving his mother “working as a first grade teacher. And with not enough money in the house, just barely able to make ends meet . . . emotionally I suffered terrific—I wept for—for years I was a crybaby about my father’s having died.” Yet, harmony and help did not become Booth’s dominant needs, a refuge from accepting challenge. Instead, his loss changed his perspective of himself in relation to the world in a motivating way: “I think it really taught me, you just are not the center. And it’s important for you to live your life knowing that you are not the center. And to find forms of meaning that don’t have to make you the center . . . ” As a result, what took priority became “a sense of needing to achieve, and needing to achieve not just externally, but you’ve got to have a life; [to] make up for that loss.”

Stimulating children to take up new interests and challenges is important for the ultimate development of
creativity. A developmental irony, from parents’ perspective, is that new interests, and the autonomy that follows during adolescence and young adulthood, can lead children to rebel against earlier influences. Differentiated individuals might not choose precisely the path their parents would have hoped. However, in the narratives described in this study, the counterbalance of integration apparently kept the family’s emotional bond and its core teachings intact, albeit, perhaps, in different forms. Wayne Booth serves as an illustration. The diary his grandmother suggested he keep served as an outlet for questioning his childhood mentors and teachers. He recounted that by the age of 17 or 18, he not only believed he was no longer the center of the universe, he decided that “I would no longer believe the Mormon theology.” Furthermore, Booth rebelled against his mother’s expectations for his success after he finished his PhD:

You know, I went on a mission; came out and spent 2 years in the Army...most of the time as a private. I deliberately eschewed all attempt to achieve; I was repudiating those norms I was telling you about. My mother wants me to be President of the United States; I’m not going to do anything other than simply read books and talk with people and, and be an intellectual.

Although he had turned away from some of his church’s teaching and practices, he did not reject the idea of rigorous effort, inquiry, and belief. As he put it, “the religion of education, you might say, became my substitute; I turned from one church to the other.”

Modeling habits of creativity. The parents described in these interviews did not expect their children to rise to standards they themselves could not uphold. They created environments in which habits of productivity were modeled on a daily basis. Freeman Dyson, John Hope Franklin, Ellen Lanyon, Robertson Davies, and others learned important habits by imitation. Dyson, for example, described his father’s intense concentration on his own creative work. Although Dyson pursued physics, not music as his father did, he interpreted the example of his father as highly significant because it demonstrated the satisfaction that can come from intense concentration on a challenging task.

Dyson: My father was a composer and so...I have perhaps more understanding of his creative process than my own, in a way.

Interviewer: Can you describe his?

Dyson: Well,...he would compose quite systematically for three hours every morning and when he was not busy with other things, he would sit down at his desk at 9 o’clock and compose until 12. He had a very strong self-discipline.

Self-discipline was the theme for Franklin as well:

My father was the most disciplined man I ever saw. And, ah, when he was not with a client...I used to go out in the office and be with him. I admired him greatly. When he was not with a client he was studying. At night he was reading or writing. And as I said in The Life of Learning, I thought that was what you were supposed to do in the evening. I thought that you were supposed to read or write so that is what I did and that is what I still do. People say, “Well, I will settle back and look at me some television”; well, I will settle back and do me some writing or some reading, that is just the way that I am.

Davies, perhaps more than any of the other participants, learned from a family of role models working in the same field. He described how the process of writing became naturalized in his mind. Writing is a challenge, he learned, that not everyone welcomed:

Another very lucky thing for me was that I was born into a family where really everybody wrote: my father, my mother, my brothers all wrote. They were journalists and wrote newspaper things. And my father had been—he’d written fiction. I had great uncles and people like that who were journalists and commentators for newspapers and political commentators and that. And you know, I honestly say that it was—I was twelve years old before I realized that not everybody wrote all the time. I thought everybody did it, and I was astonished to find later on that some people found it dreadfully difficult. And there it was. I just grew up in a writing family, so I was very lucky in that way and in those early impressions.

In describing his interpretation of his family’s tragedy, Booth raised the point that one’s developmental path may not be influenced only by family members who model or insist on achievement, but also by antinomies, images of what one does not want to become:

I also had a grandfather who didn’t have much of a life.... He had eight children, never had an adequate salary, we lived with him for 5 years and I saw him as a kind of dried-up, miserable, day-by-day slave to his necessary financial needs. And I think I’ve been kind of trying to live his life, too, to make up for his loss.
Building a demographically and psychologically diverse family unit. Some interview participants grew up in families whose members represented diverse geographical backgrounds, personalities, and worldviews. Some of the families, in addition, were shaped in complex historical and cultural contexts. Some participants directly credited this diversity of family influences with opening them up to multiple ways of seeing the world and dealing with new experiences—hallmarks of differentiation. These families illustrate, in more than one way, how opposites can coexist and how children can reconcile, even capitalize on these differences.

Henderson described her mother as the nurturing counterbalance to a demanding father within a “typical patriarchal family in a typical patriarchal culture”:

My mother had much less power than my father did. And my mother was really my role model. She was, you know, very loving. And always had enough time for all of her four kids. And she was the person in town, you know—I grew up in a small town of about 3,000 people. And she was the person who did the Meals on Wheels on Tuesdays and went and did the Well Baby Clinic, and everybody greeted her when we went up into the village and she knew all of the people, you know, and, and everybody sort of, you know, there was a tremendous amount of recognition and respect for her. Because she was, she is, a very good person. And so she was definitely my role model.

Yet, interpreting her family life retrospectively, Henderson came to realize that it was not exclusively her mother’s influence that shaped her, but the interplay of maternal and paternal forces. She described the sometimes tense relationship between her mother and her father:

The only thing that was really a great conflict for me was that she, she was the one who kind of got trashed in arguments with my father, of which there were quite a few. You know, he would tend to be authoritarian because that’s the way...men were supposed to be. And so she never won an argument. And you know, he was always wielding power. And, I didn’t want to be like him. Although I realized that power was very useful. And I did want to be like him in terms of, well, I want to be effective, and I don’t want to get trashed, I don’t want to be a doormat. And so that was a tremendous tension in my childhood, you know, what the hell to do with this.

Henderson was eventually able to reconcile the opposites and make them work for her. They contributed to her own creative achievement, “although I didn’t particularly appreciate it or verbalize it at the time.” Henderson described her insight into how psychological opposites, love and power, could be united—had to be united to effect change in the world: “Love has to be powerful. Because otherwise it’s, you know, not going to be effective in the world.” She reflected on people she knew who “could be very effective at doing social change, but they’re afraid of power.” The problem, according to Henderson, is that “They distrust themselves...There’s all kinds of people doing reasonably evil things in the world that don’t have any of these qualms. You know, don’t you think you have a right to have your little light shine?”

Without being asked to explore the differentiated family in those terms, Davies applied the concept in his narrative, attributing his “ability to produce this enormous complex order” [the interviewer’s words] to experiencing at an “impressionable age...two very sharply differentiated attitudes...apparent in my parents”:

My father had come from the United Kingdom. He came from Wales. He was very Welsh in his character. And consequently, because of him, I always had one eye turned toward the past, almost looking back toward the days of King Arthur. The Welsh have very long memories. But my mother, her family had lived in Canada since the American Revolution, and they had been the refugees from the American Revolution who had been driven north because, you know, the Americans don’t like to think of it, but they were very unkind to the people who lost in the Revolutionary War. And so a lot of them had to escape north to Canada, and her family were in that group, and they were not of English descent primarily, they were mostly Dutch.

Davies, like Henderson, was able to figure out a way to reconcile polarities and use both in his decision-making throughout life:

And so I had the old land and the new land constantly before me in my childhood and in the things that influenced me and I always was turning from one to the other, and feeling the pull of one against the other, and forming judgments about one which were related to what I had learned in the other.

DISCUSSION

This qualitative investigation adds to the extant quantitative assessments of complexity in families by demonstrating that the Complex Family Framework can provide a useful analytical tool for the retrospective mining of family context data. It is our hope that this study, seeded in the early family lives of the participants, will encourage creativity scholars to further investigate the crucial role of a balanced interaction between
integration and differentiation within the family system. Although this analysis does illuminate relationships and processes heretofore poorly understood—or presumed not to exist—it does not fully resolve issues regarding the relationship between family context and the development of creativity.

Issue 1: Is It Necessary for the Family Environment to Be Both Stimulating and Supportive?

Research on children and adolescents has suggested an important symbiosis between family stimulation and support, showing that children who feel supported by their families and challenged to develop their independence and individuality fare better than those who receive just support, just challenge, or neither (Cooper, Grotevant, & Condon, 1983; Howe, 1999; Irwin, 1987; Rathunde, 1996). Three major explanations have been offered: (a) the combination of stimulation and support helps transmit productive habits for young people, increasing the likelihood that such habits will be perceived as enjoyable, rather than as work to be avoided (Howe, 1999); (b) the combination strengthens self-esteem and life satisfaction (Furstenberg, Morgan, & Allison, 1987; Wenk, Hardesty, Morgan, & Blair, 1994); and (c) the combination of stimulation and support creates a unique experience for young people “that makes them unusually competent” (Howe, 1999, p. 433).

It is not our claim that more stimulation is necessarily better. Rather, differentiation occurs in the presence of optimal stimulation and challenge. A goodness of fit between the skill of the child and the demands of the environment is crucial. Parents who can help their children find just the right amount of challenge and stimulation are more likely to help the child negotiate an optimal person-environment fit (Rathunde & Csikszentmihalyi, 2008). This position is consistent with theoretical literature such as Vygotsky’s (1978) concept of scaffolding, which stresses modifying support to fit the child’s skill, and by Rogoff’s (1990) research on the value of guided participation. Our position is that too much stimulation can prove counterproductive. This position is supported by Albert’s (1992) caution of the risks to creative children

when the immediate environment of family and friends organizes itself and the child too soon and too tightly, encouraging the gifted child to foreclose on his or her identity development. When this happens—and it does—the environment prematurely shuts off or drastically reduces the range and variety of experiences and, with them, of possibilities and choices. (p. 12)

Our finding is that a context of support characterized the lives of these children who later demonstrated creative achievements, a finding validated by other studies of optimal experience, as well as Milgram and Hong’s (1999) longitudinal study of gifted adolescents. Our finding is also fundamentally compatible with Rogers’ Theory of Creative Environments (1954), which states that constructive creativity is more likely to occur under the presence of two conditions: psychological safety and psychological freedom, the former a construct bearing similarity to Rathunde’s conception of support. Rogers’ theory was later validated by Harrington, Block, and Block (1987).

However, our findings about the contribution of support are at odds with a large body of literature arguing that children who will later prove creative come from families lacking harmony. Albert (1992), summarizing a long tradition in the study of eminence (e.g., Barron, 1963; Brooks, 1973; Dewing & Taft, 1973; Getzels & Jackson, 1962; Helson, 1965, 1966; MacKinnon, 1962, 1964, 1967; Terman, 1954) characterized these families as having a wobble “built into many of its relationships, roles, allocation of attention and resources, and clarity of communication.” That is, “the creative person-to-be comes from a family that is anything but harmonious…. Such families often generate and live through a good deal of tension if not profound disturbances most of the time” (Albert, 1992, p. 175).

The present research cannot determine how the interview participants’ lives would have been altered had the element of either harmony/help or stimulation/challenge been substantially altered. However, our study contributes a description of the mechanisms by which productive habits, enjoyment of one’s work, self-esteem, and competence can be nurtured within families. The participants’ lifetime enjoyment of a content area, resulting in domain-changing achievement, may provide some of the strongest evidence of complex, rather than one-dimensional, functioning: “The ability to enjoy work for its own sake can be…split into two seemingly opposite personality traits. Persistence, endurance, or ‘driving absorption’ (Roe, 1952; Simonson, 1988) and curiosity, openness, and intense interest” (Csikszentmihalyi & Csikszentmihalyi, 1993, p. 188). No studies on the synergistic influence of family stimulation and support on optimal achievement have been published since Rathunde (1996), suggesting that the significance of these consistent findings has been missed in the field of creativity research. It is our hope that this study will help reopen the conversation.

Issue 2: What Are the Roles of Economic and Social/Cultural Capital?

Economic capital. The adverse effects of poverty on cognitive development, academic achievement, and physical well-being have been well-documented (Bradley, Corwyn, McAdoo, & Garcia-Coll, 2001;
Uhlenberg & Mueller, 2003). A direct causal link may not be economic deprivation itself, but deprivation of support, shown in the present study to have been so important in the participants’ development. Economic hardship can lead to diminished parental involvement and support, which has been associated with low self-esteem and behavior problems (Skinner, Elder, & Conger, 1992; Whitbeck et al., 1991). Csikszentmihalyi (1999) summarized another pair of negative associations between poverty and creativity, based upon 30 years studying creativity:

Too much deprivation does not seem to lead to innovative thinking. When survival is precarious... there is little energy left for learning and experimenting... It is not impossible for a talented person to emerge from a ghetto or a third-world country, but much potential is lost for lack of access to the basic tools of the domain. (p. 328)

In fact, most of the highly creative individuals considered in Csikszentmihalyi’s research have represented the two socioeconomic poles, rather than the middle. Csikszentmihalyi (1999) speculated, “A person who is comfortably settled in the bosom of society has fewer incentives to change the status quo” (p. 329). As our study has shown, economic hardship can stimulate productivity.

Can family context be the great equalizer? Does it stimulate creativity that individuals can use to rise above low socioeconomic status? The present study, with a very specific and small sample, cannot make the predictive claims of studies with large samples and sophisticated statistical analyses that have demonstrated that scarcity of material resources leads to negative outcomes. In addition, regardless of methodology, cohort effects must be considered when examining the equalizing potential of complex families. The spirit of the times (Simonton, 1984) and political climate, as well as the socioeconomic status of the family (Urban, 1995), influence opportunities for cultivating creativity. Many of this study’s participants were part of the generation that grew up during the Great Depression. Although the Depression was an experience shared by all Americans at that time, it was a transitory event. Living one’s formative years during a traumatic, history-graded event, is not the same as growing up in a family that has experienced poverty across generations. However, our findings do provide a rationale for more sophisticated, quantitative investigations to explore the mitigating effects of support and stimulation on economic hardships.

Social/cultural capital. Cultural capital, according to Csikszentmihalyi (1999), “consists of educational aspirations of one’s parents, the nonacademic knowledge one absorbs in the home, the informal learning one picks up from home and community” (p. 328). Parental expectations, time parents spend with their children working on projects together, and transmittal of positive attitudes about hard work are influential. The literature offers much support for creativity’s intergenerational effects (Albert, 1980, 1996; Helson, 1968; Simonton, 1984), a phenomenon Albert (1996) referred to as family transfer, a process evident in the lives of many of our study’s participants. Sometimes, however, unexpected deprivations of social/cultural capital such as parental favoritism (Hertig, Davis, & Sulloway, 2002), parental loss (Albert, 1971; Csikszentmihalyi, 1996), and limited family resources (Sulloway, 1996) can facilitate an individual family member’s drive toward creative outcomes. Sulloway’s evolutionary argument, for example, asserted that parental withholding of emotional support from some children results in their developing creative potential as they rebel in an attempt to distinguish themselves from their siblings. Simonton (1984) made a case for birth order as an additional source of differentiation within families, arguing that first-born males are more likely to excel at higher levels than their siblings.

CONCLUSION

One of the interview participants, reflecting on his own lifetime of creative achievement, argued that active facilitation of creativity is essential:

It’s very common to think of creativity as some very special ingredient in people’s personality that leaps out like a bubbling spring. A great many people take an almost fatalistic view. You have it or you don’t have it.... My own feeling is that a very substantial number of people are potentially creative but it’s imprisoned. It’s imprisoned by fears they develop very early, or by self-estimates they develop very early or by the constrictions of convention and so on that tell them that they can only function in certain ways.... People can... grow beyond the fears,... if they get the affirmation, sometimes on their own, sometimes with the help of mentors, that will bring out what’s in them.

Forty years of optimal experience literature has demonstrated that complexity is central to the lives of creative persons. The present study’s use of the Complex Family Framework contributes specific descriptions of family systems that facilitate the development of an individual’s adult creativity. The participants’ families were able to perform a skillful balancing act between a number of opposites: establishing ethical and material limits versus providing generous support for individual
interests; spending time together versus leaving children alone; holding high expectations versus accepting experimentation and failure. Parents such as these foster integration by providing a cohesive psychological and social infrastructure and by resisting the urge to wield too much instrumental control over their children’s activities, which could risk the loss of warmth and connection with children’s interests and aptitudes. They foster differentiation by resisting the temptation to exercise too much emotional control, which could smother opportunities for independence and exploration. Just as the integrative principle moves parents to exercise influence by establishing support and behavioral guidelines, so the differentiating principle moves them to exercise influence by pushing children to higher levels of challenge and skill. It is our thesis that such families provide optimal conditions for cultivating creativity, environments that help children find self-fulfillment and mature into adults who can make important contributions to the culture.

REFERENCES


