SENG Journal

Exploring the Psychology of Giftedness

SENGJ

Volume 2

Issue 1

March 2023

Editor: Tracy L. Cross

SENG

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About This Journal

SENG Journal: Exploring the Psychology of Giftedness (*SENGJ*) publishes original research on the psychology of giftedness biannually, in March and September. Rigorous quantitative and qualitative methodologies used in studies of the cognitive, social, and emotional realms will enlighten readers about the inner world of a unique population and contribute to our understanding of the development of talent. The journal also publishes reviews of research, theoretical explorations and interviews with thought leaders and experts on the psychology of gifted individuals. Articles have applicability for families, educators, counselors, psychologists, and all those with an interest in giftedness.

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ISSN 2831-5693

SENG Journal
Vol. 2, No. 1, 3-4

About This Issue

Welcome to Volume 2 number 1 of the *SENG Journal: Exploring the Psychology of Giftedness*. Before I overview this issue, I want to introduce a new addition to the professionals behind the journal. Dr. Angie Miller has joined the team as the Associate Editor. She works as an Associate Professor of Research at Indiana University Bloomington. Dr. Miller is an excellent scholar with considerable research skills, who has a longer-term interest in high ability students, with a particular expertise in honors college students. She will work with authors, manuscript development, and special issues. We are very pleased to have her on board. You can see her brief biography below.

In this issue, we have two interviews, a literature review and three empirical articles. The first interview is with an icon in the field, Dr. Rena Subotnik. Dr. Subotnik is extremely well-known and respected in the world of giftedness and talent development, and the psychology of giftedness more specifically.

The first article, by Kathryn Fletcher, Kristie Speirs Neumeister, W. Holmes Finch, and myself, is entitled "Profiles of Temperament and Perfectionism in High Ability College Students." This study brings new information to our understanding of perfectionism, notably the ways it is affected by temperament and personality, that have not been previously examined.

The second article is entitled, "Parents' Perceptions of Children's Psychosocial Adaptation During the COVID-19 Pandemic in Quebec: Comparison with Gifted and Non-identified Gifted Children." The authors of this article (Claire Baudry, Jene Lagacé-LeBlanc, Line Massé, Jessica Pearson, Amélie Courtinat-Camps, Eileen Slater, and Geneviève Ouellet, working at Université Québec à Trois-Rivières) make important findings regarding the relationships between neurodevelopmental conditions, giftedness, and social adaptation.

In the third article, "A Counselor Educator Situates Two Seminal Studies in the Cultural Values and Underrepresentation Literature 30 Years Later", Dr. Jean Peterson offers a unique look at two studies important to the field that were completed almost three decades ago. She attempts to both integrate their findings while capturing some of the important changes to the field. She also evaluates the efficacy of the research techniques employed. This is a thoughtful and rare approach of a researcher revealing the strengths and weaknesses of two of her previous studies while applying them to the broader field of gifted education.

Following the three studies is a literature review by Dr. Orla Dunne. Dr. Dunne has emerged in recent years as a scholar with an in-depth understanding of LBGTQ gifted students. She studied this population for her dissertation at Dublin City University, and has for years had direct responsibility for providing enriching, safe, and developmentally effective opportunities for these students. Her literature provides excellent and up-to-date information about these students.

SENGJ is committed to offering an ongoing section of the journal to professional psychologists/counselors who have significant experience with gifted/high ability students. It is my belief that professionals in these

roles are uniquely qualified to speak with authority about the presenting problems that lead the student to the counseling process, what other issues are common, and effective approaches for helping the students develop successfully. To that end, the final article in this issue of SENGJ is an interview with Dr. Tim Stambaugh.

Introducing the *SENG Journal* Associate Editor

Angie L. Miller, Ph.D. is an Associate Research Scientist in the Center for Postsecondary Research at Indiana University Bloomington. Angie holds a Ph.D. in Educational Psychology from Ball State University. Her primary responsibilities include research and data analysis for the National Survey of Student Engagement (NSSE) and she also serves as Data Consultant for the Strategic National Arts Alumni Project (SNAAP). Her research interests include the utilization of creativity in educational settings, factors impacting gifted student engagement and achievement, survey methodology, and arts education. She has published in a variety of gifted, creative, and education journals, including *Roeper Review, Journal for the Education of the Gifted, Journal of Advanced Academics, Gifted and Talented International, Journal of Creative Behavior, Creativity Research Journal, Business Creativity & the Creative Economy, Motivation & Emotion, Journal of Education and Work, Journal of College Student Development, Higher Education Research & Development, Assessment and Evaluation in Higher Education,* and *Research in Higher Education.*

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Interview

Rena Subotnik: An Interview with an Icon in the Field

Rena F. Subotnik, Ph.D.
Interviewed by Tracy L. Cross, Ph.D.

Dr. Tracy Cross spoke with Dr. Rena Subotnik, to discuss her career and her impact on the field of gifted education. Dr. Subotnik has just announced her retirement from her longstanding role at the American Psychological Association (APA), which is the latest in a long list of differing and highly impactful roles she has held over the decades. One of her latest contributions has been the Talent Development Megamodel, co-created with her colleagues Paula Olszewski-Kubilius and Frank Worrell, which is instrumental for understanding the psychology of high performance.

Dr. Rena Subotnik

Cross • *Over the years, you and I have talked a bit about how much of the research and other publications related to the psychology of gifted students has tended to emphasize potential maladies, issues, detriments or hardships of gifted children as sort of a primary rationale for the importance of the field. Some very good work has been done in this area and continues to be done. But what also needs to be produced, especially given people like yourself and others who come from an educational psychology background, research about what we need to know about them so they can become fully realized as human beings, academically, interpersonally, you name it. Be productive, be high achievers, high performers. And that is wide open, in my opinion. Now, I think the Megamodel can inspire young researchers and educators, and I think that is a tremendous help, a major step forward for the field. Please tell me about your thinking about that basic juxtaposition that we focus a great deal in one aspect of the psychology of gifted student, but not very much on the more performance-oriented side of the equation at this time in history. What do you think we should do about it?*

Subotnik • Professionals work with what they know and how they were trained. If you're trained as a clinician who deals with people coming to your practice with problems, then it's likely that's the population you are going to study and be concerned about, and colors how you view gifted children. Like you said, as educational psychologists we look at groups of students and how they learn compared to others, and how kids function within groups and in response to instruction, curriculum, and school and home climate. From that standpoint you see the whole range of gifted kids—from those whom you wish would be treated by a clinician or are currently engaged with a clinician, to those who are not only stellar academically but have everything going for them—they're good-looking (!), fine athletes, the whole nine yards, and have great personalities. So, I would argue that there are two perspectives on gifted and talented education derived from two populations of professionals: (1) psychologists working in schools, out of school institutions, and in collaboration with higher education, and (2) psychologists who see children primarily in practice. People who are in practice give us incredibly important insights. But those insights cannot be generalized to the gifted population as a whole.

So, there's the issue of whom shall we study in the gifted field. How do you determine giftedness and how does it get manifested? My research has become increasingly focused on domain-specific giftedness. Certainly, I was influenced heavily by studying with Abraham Tannenbaum, and the chance opportunities I had to study adolescents talented in science and in also in classical music. If you recall, Tannenbaum's definition:

> Keeping in mind that developed talent exists only in adults, a proposed definition of giftedness in children is that it denotes their potential for becoming critically acclaimed performers or exemplary producers of ideas in spheres of activity that enhance the moral, physical, emotional, social, intellectual, or aesthetic life of humanity. (Tannenbaum, 1986, p. 33)

Cross • *I remember back when I was at the Indiana Academy, you and I had a conversation and you told me that you had come to understand that the Juilliard graduates given explicit instruction about pursuing opportunities. They needed to develop knowledge and skills in that area in order to have a healthy career, a robust career. That really stuck with me because I see that in a lot of people. My own children, perhaps in some ways, too. But do you think that is similar for all domains? Or do you think it varies a lot by domain, that there's that specific knowledge that would be within a domain or part of the culture of a domain? Insider knowledge is what I'm asking about.*

Subotnik • We have a paper under consideration on insider knowledge in science that scratches the surface in this new area. The people we interviewed are established

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scientists of different generations. Insider knowledge and the whole culture of a career in science have changed so much. The older people in our sample are professors. But the younger ones all wanted to be entrepreneurs, because the life of academia was just not appealing to them. So, there's a whole lot of insider knowledge that gets lost for people who go to these grad programs and their professors are teaching them how to be a professor, and they don't want to be a professor.

Also, many of our study subjects had parents who really pressured them to become a doctor and they ended up wasting years pursuing medicine when they wanted to be a physicist. A couple of them worked with professors who were brilliant but treated their grad students horribly. One young entrepreneur said, "I thought this was what rigor was, so I endured it because I thought have to be tough." There are all kinds of really important insights about career trajectories that need to be shared with young people with interests and passions in science.

Cross • *I have felt like the some of the questions around how to identify giftedness, if that's the way of thinking of it, and the role that things like IQ can play need to be situated one way or another, to draw reasonable conclusions about. And certainly, domain specificity may be the best single approach, but something even broader. Like, are we talking about functioning well in school situations versus outside of school situations? I'm interested in your notions about the role of, say, IQ in decisions we might make about access that young people can have all the way through college.*

Subotnik • During the early days of my career. I was asked to conduct a follow up study of Hunter College Elementary School students from the 1940s and 1950s. During that time period, it was harder to get into Hunter Elementary than it was to get into Harvard. To get in, each child needed to score at the 97th percentile or above on an individualized IQ test. The school was designed to provide a special education for a high IQ school population. Forty years after graduation, when the results of my study were published, I found them to wonderful citizens, but not exceptional performers.

In response to the study, many in our field said that it doesn't matter if they did not turn out to be outstanding creative producers. They still had a high IQ and needed a special education at the time. And I accept that argument. However, if you have all that brain power and you were privileged enough to have this great education, and still turned out like other upper middle-class kids who went to private school in their neighborhood, you have to wonder about the point of that kind of gifted education, and if we are identifying children appropriately. In later graduating classes, there was an eventual Nobel laureate, and a renowned Broadway composer, but by then changes were put in place regarding the use of IQ and top 3% cut off.

The question as I see it is, what would you use instead of IQ? I guess you could expose children to enriched environment and see how they respond. That's the ideal approach. And with early identification areas like math, there are some instruments that are predictive of future performance. But in so many areas we don't know anything. So, is it better to employ something that's standardized and rigorous? Or nothing? I don't know. I respect people who use IQ and I want high-IQ children to be served. That exploration of giftedness is just not an interesting direction for me, especially under conditions of scarce resources.

Cross • *This is one of the things that Larry talked a lot about that I really appreciated. He really worried that people want to attribute more power or influence to predictive measures rather than actual measures of achievement, accomplishment or performance. His view was: if a person performs at an extraordinary level, you don't really need to know whether you think it's possible for them. If you're seeing the behavior, you don't need to predict it. I agree! Would you mind talking about writing teams for maximal creativity?*

Subotnik • Well, my productivity skyrocketed once I started working with partners. First there was Karen Arnold, and we published *Remarkable Women* and *Beyond Terman: Contemporary Longitudinal Studies of Giftedness and Talent* and then after that it was Linda Jarvin, with whom I published the work on music conservatories. And then, 2009 I joined with Paula Olszewski-Kubilius and Frank Worrell as a writing team in response to an invitation by the Association for Psychological Science to write an article for their journal Psychological Science in the Public Interest. Writing by myself was never rewarding to me. I think part of it was my tendency to procrastinate, whether due to performance fears, or whatever. If you're going to write in a partnership, do it with a peer. It's different than writing with a grad student, which you often have to do if you're an academe. There has to be agreement that you swap who's the first author. Not automatically, because sometimes somebody really brought in a project and it's not fair to not give credit to that person, but whenever possible.

Also, if you write collaboratively, over time you find out how to be the most efficient. Frank lives in California, Paula lives in Chicago—so we have very few opportunities to work together in person. Usually, one of us will start a section and pass it along, until everyone says, okay, this is good enough. If you're going to be the first author, you're responsible for keeping it moving; you at least have to generate the outline and set up the meetings, make sure people are staying focused (because we are all pulled in lots of directions). By now the process is more like a well-oiled machine.

Cross • *I've like I kiddingly said, I sort of watched with envy as your group continued to work. I've seen people come together and*

produce a book or products, but not for several years, as you all have. It's really encouraging, it's something I want to talk to my doctoral students about.

Subotnik • You have to be on the same page in terms of philosophy and beliefs. I knew that any philosophical arguments Paula, Frank, and I have are within a certain range. We agree on what's important, what's a fair amount of work to do, which pieces of literature are the most interesting, things like that.

Cross • *Do you have a favorite work from this group?*

Subotnik • Hmm. Well, there are a lot. I really love the *Psychology of High Performance* book. We edited and didn't write all of it, but I thought it was very cool to have the chance to work with people with expertise in sport, art, academe, and professions. We did a paper on mentoring, And some other psychologists joined with us on a paper on gatekeepers that I thought was great. I mean, I've liked all of them.

All of them focus on some aspect of the Megamodel but always with a new twist or focus.

Cross • *Is there a sensibility that you can describe that you think the three of you all have?*

Subotnik • I think we all are fascinated by creative people. Frank is a musician at heart and works actively as a choral director. Paula's daughter is an artist. I had the opportunity to do this study at Juilliard and other renowned conservatories with Linda Jarvin. And we've worked with great scientists, sports psychologists, and military psychologists. All these people are exploring, "What's excellence and how do you get there?"

Cross • *That makes sense to me. I have always found art to be primal. One of my sons is an artist and he explains to me things that I could not understand or articulate on my own. As a person who likes art a great deal, I would not have known or appreciated as much as do without my so's expertise. And so, over the years, there is a small accumulation of that kind of knowledge.*

There's a richness and a primacy to these things that challenge assumptions.

I want the world to hear you talk about the Megamodel and anything from it that you think is important. And if you do not mind, I would like to capture you talking about eminence. I just think that is a wonderful challenge. It's like laying it out there for people that maybe the idea of truly caring about high performance means that there are some goals that have to be set pretty high. And, you know, that is just one way of thinking about it. But I would like for our field to eventually get to the point where we have a big impact on both the psychological well-being and high performance, whether it is in school, or sports, or art, or dance, or politics and on and on.

Subotnik • Upon reflection, eminence was not necessarily the best word to use. We're really talking about transformational creativity. Our goal is to describe an aspiration for gifted and talented education to promote the shaping a field or a domain such that it transforms other people's behaviors or the way that they look at a problem. And that could happen in the arts, it could happen in sports, it could happen in scholarship, and in professions. We aren't talking about fame, but rather about coming up with an idea or product that other people feel helps them to understand the world better, or to find the world nicer, or more beautiful, or healthier. It's important to have a goal for our field because the alternative has been counting how many people get into Harvard or get into medical school. I mean, what's the point of that in the end?

Certainly, most people do not want to sacrifice a "normal life" to be a transformationally creative person. And no one should feel obliged to pursue that goal. But anybody who wants should have access to whatever skills, opportunities, et cetera, to try to reach their goals. Even then, admittedly, it may be near impossible to get where you want, so you might need advice, mentoring, insider knowledge, to redirect your talents and energies. For example, there are just so many jobs as artistic director of a philharmonic orchestra, even if you are fantastic. And the redirecting can lead to some transformational creativity.

A lot of arts institutions are trying to find other ways for people to be transformational in addition to being an art teacher—which is also very important, such as working in an arts related business or trying a different genre. And of course, there are fields that don't yet exist. Some creative people will connect fields together, start new fields, et cetera. The point is to move the endpoint of gifted education beyond school into adulthood and careers. And if people argue about that idea, that's good. But to say it's not important to encourage and promote transformational creativity, I don't get that.

In terms of evolving new directions for the Megamodel, we've become increasingly interested in outside of person factors. In recent years, we've been talking about, "What are the roles of gatekeepers? What is the role of insider knowledge?" Because those two factors really have an impact on who gets opportunities to move forward in a domain. And if everybody had access to the insider knowledge that you need, there might be fewer ethnic, racial, and socioeconomic disparities than we are seeing in gifted programs. As an example, in one district in Virginia near DC, some schools were not given information about how to apply to district wide selective programs. That's obscene.

So, insider knowledge being made explicit is very important. And then gatekeepers, what is their role? How do they get there? What wisdom do they have? How do you make sure people you mentor get to meet gatekeepers and present their work? And we're not approaching these questions it in a cynical way. Rather

than say, "It's all rigged and screwed up," we're saying, "This is what it is, and let's try to make it fairer."

Cross • *When I was a little boy, my dad was invited by several art galleries in Atlanta and different cities to hang their shows for them. So, he would sometimes take me and I went on a few of those trips and he'd hang the pictures in different ways. And so, as a 10-year-old, I knew a bit about hanging art shows and some other things that my dad thought were important. It was an interesting thing to learn about because, you know, as an outsider you would not assume that name tags of pictures would be important, but evidently it can be quite important. And other things too: spacing, lighting, wall cover fabrics, the whole panoply of things. Some of it is technical, but some of it is these other things, aesthetic sensibilities for example. I think that art is such an exciting field. And insider knowledge is the next ingredient that we have not really done a lot with yet, that could open up doors and improve performance.*

Subotnik • One of the things I feel has grown out of my work and the Megamodel is a more—well, I hate to use this word, "nuanced,"—view of mentoring. The word "mentoring" tends to be used as "a match made between a student who's ready to do research and somebody who agrees to take them on." What we've been doing is thinking about three levels of mentorship that focus on the talent development model. The first level involves providing exposure—like a talk, or demonstration, or video. I would classify that as "mentoring at a distance." It doesn't have to be somebody you ever actually meet who turns you on to an area of study.

The next stage is the more traditional "fix up," which works best for getting competencies to expertise. But then there's a higher level, which is what happens in most doctoral programs or in sports or the arts, where a mentor picks you. Somebody picks you because they want you to be their mentee. How do you prepare for that? How do you make yourself noticeable so somebody will want you as their mentee because that mentor could share their wisdom and open doors? Preparing yourself tastefully, is a way to be active and not passive in acquiring a mentor. This psychosocial skill is taught explicitly in professional music programs.

Cross • *I cannot help but reflect on some of the doctoral students I have had the privilege to work with over the years, and learning about mentorship and its importance, and perhaps how to go about it a little bit more now than before. One of our doctoral students really stands out to me in his sort of clear-headedness about the kind of relationship he wanted with me. I always feel quite honored when he reaches out to me and asks questions. That quality that he has, to have the confidence to approach someone like me and say, "I really think this and that."*

This is a very important topic. And, you know that I often talk about the importance you have had in the field as someone who introduced so many of us to each other. I could name probably up to a fifteen people I have met through your direct efforts whom I maintained a professional friendship, probably close to 30 years now. Perhaps not to the level of mentorships per se, but certainly relationships with advice, encouragement, support, and collaboration. I think that what you are talking about is very important, and you have played such a big role in it our field bringing it about.

Subotnik • A couple of other things that I thought of as you described your student. My Associate Director is now in a doctoral program. She made the mistake of telling her advisor that she didn't want to go into academe—and as a result, she said their relationship changed. I failed to give her that insider knowledge! Never tell a professor you don't want to be like him or her if you want to be their favorite. A mentor's job is teaching psychosocial skills, or modeling psychosocial skills, and also giving insider knowledge.

The other thing that is very important for a mentor to do is help mentees find their own ideas for transformational creativity. Mentoring is developmental, and the role of the mentor changes in terms of the relationship and their responsibilities over the course of talent trajectories. At both the second level (from competency to expertise) and the third level (from expertise to transformative creativity), insider knowledge increases in importance in the mentoring role.

I'm not an at a university, rather I'm working at a professional association/scientific society. I was talking with my supervisor about the position of Associate Director because we wished we could pay the Associate more. And I said, the only advantage besides pay is that every one of them has gone to graduate school in psychology or related field. And the next person should be somebody who aspires to a graduate program because the Associate's job in and of itself is a dead-end job.

Cross • *That's really a nice role that you play. And it is nice that you do and can reach out to your connections who are psychologists interested in taking on your Associates in their graduate programs.*

Subotnik • The other thing I wanted to talk about, and maybe this is most relevant for this journal, is the distinction between psychosocial skills focused on well-being and psychosocial skills designed to promote high performance. Once I started getting introduced to the performance world of classical music and sports, I started hearing about different strategies that were focused on helping someone be competitive. And I thought, wow, I wish I'd learned these things earlier in life. I wish that all kids who have to deal with competition—which could be all kids, but especially academically talented kids who are doing Science Fairs or Olympiads or any of those things as part of their repertoire—could use these skills. For some people, like a musician, stage fright is a serious issue because everything that they do from how they walk out on stage, to how they introduce their music,

to how they interact with the audience, is what they get paid for. It's their job. And then of course, imagine singing the national anthem at the Super Bowl, or Lady Gaga singing that at the inauguration of Joe Biden. Can you imagine the pressure?

Another example of a psychosocial skill addressing high performance is screening out distractions, something that kids in school could use, like during a test when people click their pens or having "pings" go off in the room. Screening out distractions is a mental exercise.

The last psychosocial skill related to high performance that I'll mention for now is dealing with other's response to creativity or success. Kevin Wildenhaus, a sports psychologist, wrote a chapter in *Remarkable Women* where he talked about working with one girl who was a figure skater. She reported that "All of a sudden, my skating friends aren't talking to me." And he said, "Well, what's different from the last time we talked?" and she said, "I won a national championship." When you break out of a group, you'd expect people would be happy for you, but they're not always happy for you.

Her peer group probably knew that she's likely going to be practicing with different people. She probably will have a different coach. She'll be traveling without her old friends. Bob Sternberg has said that part of being talented is, you get enemies. If you're creative, if you shatter the status quo in any way, you're going to suffer blowback. I think it's important to prepare kids that while everyone tells you to be creative, they don't really mean it if you're too creative. In other words, if whatever you discover or promote makes other people do things in different ways, it won't necessarily be well-received, and they should know that in advance. Because then you can say, "Okay, I expected this. I heard that this was going to happen."

Cross • *I presented a couple of papers about 35 years ago from interviews I'd done with middle school gifted girls. And they taught me words like "not too". So they would say things like, oh yeah, being smart is really important, but not too smart. Performing well in class was really important, but not too high. In other words, there was a line that high performance was good, but not too high performance. Because, then they told me all the things that could come from that; losing friends was one of them that they talked about. 40 years ago. That's very interesting. And another paper I presented was called "To Be or Not to Be." And it was, again, just taking what their words were, and trying to craft them into how they described their lives. Trying to find the place where they could pursue what they wanted to, not give it up. But there were lines in the sand, and you had to learn, are you willing to cross them? These were 13-year-old girls for the most part, telling me these things.*

Subotnik • Well, it's also choosing your battle, so it may be worth not appearing too smart in certain circumstances, but that's where a mentor would help to say, "Is this a good place to stick out, or should you hang in there to get a good recommendation so you can stick out at a more important place?"

Cross • *You know, it is such a salient issue because I think it cuts across all fields. Maybe that is too big a statement, but having that relationship with someone where you could advise them and they could hear you, that would help so many people. Don't give up on your dreams unless you're willing to.*

Subotnik • How you frame the issue is really important. For example, with the figure skater distressed about her friends, I would explain that it's a natural instinct for her friends to be concerned that she will move away and abandon them, and hopefully these friends will come around after a while and root for her. She was also like taking somebody else's dream. If she won then it's not likely that one of the other ones will win too, unless they're much younger, and she needs to feel compassion for their response.

Cross • *This is really good. Your articulation of the need to train people, teach people, prepare people what to expect, can really save some heartache. And, as you said, how you frame it matters a lot, because like you said, if you lose your friends because you performed well, maybe you need to rethink your friends. Now I can imagine my 13 year old daughter just wincing at me saying something like that. But, you know, talking about an athlete performing at such a high level, gosh. And you said this was an ice skater—the toil and the practice, the degree of difficulty and all the things they deal with.*

Subotnik • I hope maybe this would be an interesting follow up in the journal: Which professionals should coordinate and deliver psychosocial skills development for high performance to young people? It should primarily be mentors, but what about for elementary school age kids or even middle and high school teachers who are not necessarily mentors unless they have a one-on-one relationship with a talented student in their subject area? Should there be a component of every subject that deals with high performance issues just the way social and emotional learning is being integrated into schools? And should it be just for talented kids?

Finally, with your editorship, Tracy, the journal can be a home for psychologists and educators to speak across perspectives to ensure that gifted education is supportive of the difficult choices we need to make about whom we serve and why. I have found more sympathy and engagement with general education audiences when talking about talent in domains. However, in a more perfect world every child who is potentially gifted or talented would receive a special education. Until we achieve that goal, we need to prioritize for greatest need and concurrently advocate for broader funding and recognition.

Rena F. Subotnik Ph.D. is Director of the Center for Psychology in Schools and Education at the American Psychological Association. One of the Center's missions is to generate public awareness, advocacy, clinical applications, and cutting-edge research ideas that enhance the achievement and performance of children and adolescents with gifts and talents in all domains. She is co-author (with Paula Olszewski-Kubilius and Frank Worrell) of "Nurturing the Young Genius: Renewing our Commitment to Gifted Education is Key to a More Innovative, Productive and Culturally Rich Society" (*Scientific American*), "A Developmental View of Mentoring Talented Students in Academic and Non-academic Domains" (in *Annals of the New York Academy of Sciences*), "Rethinking Giftedness and Gifted Education: A Proposed Direction Forward Based on Psychological Science" (in *Psychological Science in the Public Interest*), "Gifted Students" (*Annual Review of Psychology*), and co-editor with Paula Olszewski-Kubilius and Frank Worrell) of *The Psychology of High Performance: Developing Human Potential Into Domain-Specific Talent.*
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Article

SENG Journal
Vol. 2, No. 1, 11-24

Profiles of Temperament and Perfectionism in High Ability College Students

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W. Holmes Finch, Ph.D.
Tracy L. Cross, Ph.D.

Abstract

Different physical, mental, and motivational outcomes for perfectionistic strivings and perfectionistic concerns indicate that individuals have different experiences of perfectionism. Although research has focused on parenting practices as a factor related to these differences, little research has examined the impact of temperamental differences on perfectionism. In the current study, 434 high ability undergraduate students completed perfectionism, adult temperament, and personality measures. Latent class analysis that examined the patterns among the relationships between self-oriented perfectionism, socially prescribed perfectionism, and four dimensions of adult temperament (negative affect, effortful control, extraversion, orienting sensitivity) revealed three distinct subgroups. Although the largest subgroup demonstrated patterns consistent with prior research on perfectionism (e.g., perfectionism associated with negative affect), two other subgroups revealed separate patterns that were inconsistent with prior research (e.g., one subgroup had negative relationships between negative affect and both types of perfectionism). Our results demonstrate that temperament may play an important role in explaining the heterogeneity among perfectionists.

Keywords: *perfectionism • self-oriented • socially prescribed • temperament • negative affect • effortful control • extraversion • orienting sensitivity*

Perfectionism is a multidimensional construct, with two predominant components of exceedingly high personal standards for oneself and hypersensitivity to criticism (perfectionistic strivings) and mistakes, feelings of being overwhelmed by failure, and disappointing others (perfectionistic concerns) (Blatt, 1995; Flett et al., 2002; Stoeber & Otto, 2006). Perfectionistic concerns have been linked to a host of negative psychological and behavioral outcomes such as depression, social anxiety, and suicidality (Flett & Hewitt, 2022; Hewitt et al., 2017; Curran & Hill, 2019), to name a few, as well as poor physical health outcomes (Sirois & Molnar, 2016; Molnar et al., 2020). In contrast to the empirical evidence that perfectionism concerns are detrimental to physical and mental health, perfectionistic strivings have been linked to positive outcomes such as achievement and well-being, leading to the controversial view that perfectionistic strivings are a positive form of perfectionism (Stoeber & Otto, 2006). Challenging the view of perfectionism as positive, however, is a growing body of research reporting that individuals with perfectionistic strivings experience higher level of depression, anxiety, and stress than non-perfectionists (Smith et al., 2016). Corresponding to rising rates of depression and anxiety among college students, rates of perfectionism have also risen over the last three decades (Curran & Hill, 2019). Given the poor physical and mental health outcomes associated with perfectionism and its increasing incidence, it is crucial to investigate how perfectionism develops to understand how to prevent it.

Researchers that have hypothesized about causes related to the rise in perfectionism have focused on parenting (Curran & Hill, 2019), yet this hypothesis is controversial (Soenens & Vansteenkiste, 2019). The focus on parenting as contributing to the development of perfectionism is largely due to the extensive body of research and theory in this area. Five theoretical models of parenting have been proposed that have hypothesized different developmental pathways for perfectionism (Flett et al., 2002; Flett & Hewitt, 2022). In general, these theoretical models represent different ways that parents approach and react to their children's efforts and achievements in different domains (e.g., academics, sports, arts). In addition, Flett and Hewitt (2022) proposed key factors that they argue will influence how strongly children internalize external pressures and expectations that lead to the development of perfectionism:

1) Openness to socialization
2) Exposure and willingness to model others perfectionistic behaviors
3) Emphasis on high achievement within families

DOI: 10.25774/zrps-tb87
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4) Has the potential to achieve perfection in at least one domain

5) "Has a temperament characterized by extreme persistence and some degree of fearfulness" (Flett & Hewitt, 2022, p. 143).

Based on these key factors for the integrative model of perfectionism, multiple pathways led to the development of perfectionism, resulting in individual differences among perfectionists. According to Flett and Hewitt (2022), "There is substantial heterogeneity among perfectionists; thus, two people could have comparable patterns and levels of perfectionism but differ markedly in the etiology of these patterns and levels of perfectionism (Flett & Hewitt, 2022; p. 131)."

Although parenting practices contribute to differences among perfectionists, understanding the role of temperament to help explain the heterogeneity among perfectionists has been largely overlooked (Flett & Hewitt, 2022). Temperament refers to innate, biological behavioral tendencies with underlying neurological substrates that regulate affect, attention, and motor activity (Rothbart et al., 2000). Stable individual differences among children on dimensions of temperament such as negative emotionality, effortful control, and surgency, evolve over time into broad personality traits such as negative affect, conscientiousness, and extraversion (for reviews, see DeYoung & Allen, 2019; Shiner & DeYoung, 2013). Despite this developmental pathway, historically the fields of personality psychology and developmental psychology have been separated: personality researchers study adults and developmental researchers study children's temperament (McAdams et al., 2019). This separation is also evident in research on perfectionism. Because examining perfectionism grew out of clinical psychology, research has focused on adults and there is a substantial body of research on personality and perfectionism (Stoeber et al., 2018). Yet only two studies have examined perfectionism and temperament in adults (Kobori et al., 2005; Leung et al., 2019). Across studies, temperament traits of harm avoidance and persistence related to different types of perfectionism:

1) perfectionistic striving had a positive relationship to persistence, and

2) perfectionistic concerns were related to low persistence and high harm avoidance (Kobori et al., 2005; Leung et al., 2019).

Although much more research is needed, temperament may help explain how individuals develop different types and/or levels of perfectionism, contributing to differences among physical and behavioral outcomes for perfectionists.

To contribute to an understanding of how temperament influences perfectionism, the current study explored relationships between temperament and perfectionism in a sample of high ability undergraduate students. High ability undergraduates were selected given perfectionism is a common characteristic associated with this population (Miller & Speirs Neumeister, 2017; Rinn et al., 2020; Speirs Neumeister, 2018). Moreover, one of the key factors for the development of perfectionism was having the skills and talents to achieving perfection in at least one domain (Flett & Hewitt, 2022). The perceived ability to achieve perfection in different domains (i.e., sports, arts, academics) varies, but our contention is that high ability college students might achieve perfection in the academic domain. At least in the United States, one or two students at colleges and universities at graduation ceremonies are recognized for their perfect grade point average of 4.0. Through this grading system, students may perceive that academic achievement can be "perfect." For this reason, high ability students were recruited from the honors college at a midwestern university to examine the relationship between temperament and perfectionism. Given the limited research on temperament and perfectionism, this exploratory study examined individual differences among high ability students based on relationships between temperament and perfectionism.

Perfectionism

Perfectionism is characterized as personality traits involving unrealistic and exceedingly high personal standards, hypersensitivity to criticism and mistakes, feeling of being overwhelmed by failure and rigid all-or-none thinking (Blatt, 1995; Flett et al., 2002; Stoeber & Otto, 2006). Researchers generally agree that perfectionism is conceptualized as a multidimensional construct (Hewitt & Flett, 1991; Frost et al., 1990; Slaney et al., 2001). Given that Hewitt and Flett (1991) focused on the origin of perfectionism, this multi-dimentional model is conceptualized as three different types: self-oriented perfectionism (those holding unrealistic expectations for themselves); socially prescribed perfectionism (those perceiving that others have unrealistic expectations for them, regardless of the accuracy of their perceptions); and other-oriented perfectionism (those holding unrealistic expectations for others). The second multidimensional perfectionism scale, developed by Frost et al. (1990), tapped six different dimensions of the construct: personal standards, concern over mistakes, parental expectations, parental criticism, doubting actions, and organization. Within the field of counseling psychology, the Almost Perfect Scale-Revised (Slaney et al., 2001) was developed, with a three-factor measure of perfectionism including high standards, discrepancy, and order. The high standards subscale measures the extreme nature of the personal standards that individuals with perfectionism set for themselves. The discrepancy subscale measures the negative aspect of

perfectionism that centers on the perception that the high personal standards are not being met. Finally, the order subscale measures orderliness as a defining feature of perfectionism.

When all three measures were factor analyzed, a maladaptive perfectionism factor (doubts about actions, concern over mistakes, socially prescribed and discrepancy) and an adaptive perfectionism factor (personal standards, self-oriented perfectionism and high standards) emerged (Rice et al., 2005; Suddarth & Slaney, 2001). The labels of adaptive perfectionism and maladaptive perfectionism proved controversial due to the disputed notion that perfectionism is adaptive (Flett & Hewitt, 2006). To avoid these controversial terms, perfectionistic strivings (self-oriented perfectionism, personal standards and order, and high standards and order) and perfectionistic concerns (socially prescribed perfectionism, concern over mistakes, doubts about actions, discrepancy) have been largely adopted by perfectionism researchers (Stoeber & Otto, 2006). The terms perfectionistic strivings and perfectionistic concerns will be used to review the existing literature on perfectionism, temperament, and personality.

Temperament and Personality

Although there are multiple theoretical models of temperament, the model of adult temperament based on research from infancy to adulthood proposed by Evans and Rothbart (2007; 2009) formed the basis for the current study. Rothbart et al. (2000) define temperament as having two components: reactivity that is driven by physiological responses to patterns of stimuli and self-regulation that is driven by neurological and behavioral efforts to control one's reactivity. To capture these two components, Evans and Rothbart (2007, 2009) designed a measure of adult temperament including subscales related to sensation, perception, and self-regulation. Initial work on their measure of adult temperament revealed a five-factor solution (Evans & Rothbart, 2007): negative affect, effortful control, extraversion, affiliativeness, and orienting sensitivity.

Examining the validity of their adult temperament scale, Evans and Rothbart (2007) examined the relationship between their adult temperament subscales and the Big Five measure of personality (for a review see John et al., 2008). The Five-Factor model of personality is based on self-report measures of how individuals describe their cognitive, affective, and behavioral tendencies using specific traits or facets (Costa & McCrae, 1992, 1995). Five domains (extraversion, agreeableness, conscientiousness, neuroticism, and openness/intellect) were revealed using factor analysis of self-report and/or peer report ratings on specific facets (Costa & McCrae, 1992). Extraversion describes individuals who are excitable, talkative, social, and emotionally expressive. Agreeableness describes individuals who are trusting, exhibit prosocial behaviors and are kind and compassionate toward others. Conscientiousness describes individuals who devote high levels of attention to details in their work, have high levels of effortful control, and display goal directed behaviors. Neuroticism describes individuals who frequently display negative affect, unstable moods, and are lower in emotional control. Openness describes individuals who are high in curiosity, creativity, and imagination.

Dimensions of the Big Five personality measure correlated with the Evans and Rothbart (2007) model of adult temperament:

1) Negative affect correlated with neuroticism
2) Orienting sensitivity correlated with openness
3) Extraversion correlated with extraversion
4) Affilliativeness correlated with agreeableness
5) Effortful control correlated with conscientiousness

Convergence between the Evans and Rothbart model of adult temperament and the Big Five personality model indicated substantial overlap among dimensions of temperament and personality. Reviewing research on children's temperament and the dimensions of the Big Five personality model, Shiner & DeYoung (2013) outlined empirical research supporting conceptual overlap between temperament and personality. Developmental research supported conceptual connections between positive emotionality/extraversion; negative emotionality / neuroticism; and effortful control / conscientiousness. In summary, empirical support exists for the connections between temperament and personality dimensions of negative affect / neuroticism; effortful control / conscientiousness; and extraversion/extraversion.

Big Five Model of Personality and Perfectionism

There is an extensive research literature on perfectionism and personality, especially in relation to the Big Five personality traits (Basirion et al., 2013; Cruce et al., 2012; DeCuyper et al., 2015; Egan et al., 2015; Rice et al., 2007; Stoeber et al., 2009; Ulu & Tezer, 2010). As such, our review of the literature will be focused on overlapping dimensions of temperament and personality dimensions: 1) negative affect / neuroticism, 2) effortful control / conscientiousness, and 3) extraversion/extraversion.

Reviewing research on the Big Five personality dimensions and perfectionism (i.e., self-oriented and socially prescribed), Stoeber et al. (2018) concluded that empirical research supported:

1) positive associations between socially prescribed perfectionism and neuroticism
2) negative associations between socially prescribed perfectionism and extraversion, and
3) positive associations between self-oriented perfectionism and conscientiousness.

Relationships between self-oriented perfectionism and socially prescribed perfectionism and openness and agreeableness were mixed (Stoeber et al., 2018). This narrative review on the Hewitt and Flett (1991) measures of perfectionism was largely supported with results from a meta-analysis of 77 studies (N = 24,789) examining other measures of perfectionism across studies (Smith et al., 2019). Neuroticism had strong positive relationships with dimensions of perfectionistic concerns (doubts about actions, concern over mistakes, discrepancy, socially prescribed perfectionism) and a smaller positive relationship with dimensions of perfectionistic strivings (self-oriented perfectionism, personal standards). In contrast, conscientiousness had strong positive relationships with dimensions of perfectionistic strivings (self-oriented perfectionism, personal standards, high standards) and negative relationships with dimensions of perfectionistic concerns (doubts about actions, concern over mistakes, discrepancy, socially prescribed perfectionism). Findings were less consistent for agreeableness, extraversion, and openness. However, consistent with the narrative review (Stoeber et al., 2018), Extraversion had negative relationships with dimensions of perfectionistic concerns (doubts about actions, concern over mistakes, socially prescribed perfectionism). Although different statistical techniques were employed, Smith et al. (2019) meta-analysis results are consistent with the main findings reported in a meta-analysis on perfectionism and the Big Five personality dimensions published the same year by Stricker et al. (2019). In short, perfectionistic concerns were strongly positively associated with Neuroticism and perfectionistic strivings were strongly positively associated with Conscientiousness.

Temperament and Perfectionism

Despite the wealth of research on personality and perfectionism and its conceptual overlap with adult temperament (e.g., Evans & Rothbart, 2007), there has been much less research on adult temperament and perfectionism (Flett & Hewitt, 2022). Only two studies have examined perfectionism and temperament in adults using the Temperament and Character Inventory (Cloninger et al., 1994). In one of these studies, perfectionistic striving had a negative relationship to novelty seeking (i.e., enjoyment of novel situations and tasks) and a positive relationship to persistence, which is associated with effortful control (Kobori et al., 2005). In contrast, perfectionistic concerns were related to low persistence and high harm avoidance (Kobori et al., 2005). In another study using the Temperament and Character Inventory (Cloninger et al., 1994) that examined different temperament profiles in medical students, two profiles emerged: 1) low to medium levels of harm avoidance and high to very high levels of persistence, self-directedness, and cooperativeness, and 2) medium to high levels of harm avoidance and high levels of persistence, self-directedness, and cooperativeness. Medical students with the profile characterized by low to medium levels of harm avoidance had lower scores on perfectionistic concerns (i.e., concern over mistakes) and higher scores on perfectionistic strivings (i.e., personal standards) compared to the medical students with the profile of medium to high levels of harm avoidance (Leung et al., 2019). For high ability students such as medical students, aspects of temperament appear to play a role in experiencing different types of perfectionism.

Current study

High ability students often experience perfectionism and perhaps have heightened reactions toward their perfectionistic tendencies (Miller & Speirs Neumeister, 2017; Rinn et al., 2020; Speirs Neumeister, 2018). Adolescents with IQ scores of 120 or higher had higher scores on the person standards subscale (i.e., perfectionistic strivings), yet lower scores on the concerns over mistakes subscale (perfectionistic concerns) (Lavrijsen et al., 2021). Similarly, recent findings from a meta-analysis on intellectual giftedness and perfectionism revealed that gifted students did not differ from non-gifted students on perfectionistic concerns, but there was a small to medium effect size toward higher levels of perfectionistic strivings in gifted students compared to non-gifted students (Stricker et al., 2020). Similar findings were reported in another meta-analysis of perfectionism in gifted students (Ogurlu, 2020). Although the research on the prevalence of perfectionism in gifted populations has been mixed, these studies suggest that gifted students might have elevated levels of perfectionistic strivings.

To examine perfectionism and temperament, latent profile analysis was used to examine a sample of high ability college students to determine if specific subgroups existed based on relationships between temperament and perfectionism. In addition, high ability students match one of the key factors that might enhance perfectionistic tendencies: "has skills and abilities in at least one domain in which achieving perfection is possible" (Flett & Hewitt, 2022, p. 143). According to this factor, high ability students may have strongly internalized external pressures to perform academically. Expanding the research on perfectionism and temperament, this study is the first examination of Evans and Rothbart model of adult temperament in relation to perfectionism. This study investigated whether there were subgroups within the population based upon correlations among perfectionism and temperament. Our decision to examine relationships between perfectionism and temperament dimensions grows out of our interest in how temperament may contribute to individual differences among perfectionists. This approach differs from other research using person-centered approaches to obtain groups based on either temperament dimensions (Leung

et al., 2019) or perfectionism dimensions (Molnar et al., 2020; Stahlberg et al., 2019; Smith et al., 2016) and then test for significant differences on an outcome measure. As such, given the limited research in this area, this study is largely exploratory and will provide initial data to warrant further investigation into how temperament may impact perfectionism.

Methods

Participants and Procedures

High achieving undergraduate students (N = 434) from a mid-sized university participated. This group of students was part of a special honors program at the university, based upon standardized test scores, high school GPA, recommendations, and writing samples. There were 312 female and 112 males, and the sample was 92.2% White/non-Hispanic. The participants had completed varied levels of coursework in college, including freshman (n = 177), sophomores (n = 101), juniors (n = 62), and seniors (n = 79). Two students indicated the "other" category and 13 did not respond. Students reported that 66.2% of mothers and 64% of fathers had a college degree or a graduate or professional degree. The mean age of the students was 19.6 (SD = 1.4) and the maximum age was 23, indicating that there were no non-traditional students in this sample. These respondent characteristics were closely aligned with the demographics of the honors program population.

All aspects of this research were approved through the university Institutional Review Board. Students were recruited through an email requesting their participation in a research study about the psychological aspects of giftedness. All students in the honors program received this email, which contained a link to the survey instrument. Informed consent to participate was indicated by clicking on the survey link. All responses were anonymous. The surveys were completed online during one login session, and approximately 26 percent of all honors program students participated. Participants were entered into a drawing to potentially be selected for a free MP3 player.

Measures

The following measures were included in a larger battery of 12 instruments. Two versions were administered, each containing all of the instruments. The order of instruments was counterbalanced between versions to account for potential survey fatigue. Although the terms perfectionistic strivings and perfectionistic concerns were used in the introduction to summarize the research literature, the terms self-oriented perfectionism (SOP) and socially prescribed perfectionism (SPP) will be used to describe our methods, results and conclusions for the study.

Adult Temperament Questionnaire (ATQ)

The Adult Temperament Questionnaire (Evans & Rothbart, 2007)—short form was used in the current study. The measure included 77 items representing 13 subscales following under four major scales:

1) Negative affect (subscales include fear, sadness, frustration, and discomfort)
2) Extraversion (subscales include sociability, positive affect, and high intensity pleasure)
3) Effortful control (subscales include attention control, inhibitory control and activation control)
4) Orienting sensitivity (subscales include general perceptual sensitivity, affective perceptual sensitivity and associative sensitivity).

Students were asked to rate themselves on statements using a 7-point Likert scale from (1) = extremely untrue of you to (7) = extremely true of you on items such as "I become easily frightened" and "I usually like to talk a lot." Cronbach's alphas for the four main scales ranged from .78 to .84.

Multidimensional Perfectionism Scale (MPS)

The MPS (Hewitt & Flett, 1991) measured perfectionism with a 45-item scale to assess self-oriented, other-oriented, and socially prescribed perfectionism. For the purpose of this study, only the two subscales of self-oriented and socially prescribed perfectionism were used. Participants indicated level of agreement with statements about their perceptions and behaviors related to self-oriented perfectionism ("I strive to be the best at everything I do") and socially prescribed perfectionism ("My family expects me to be perfect") using a 7-point Likert scale, with (1) = strongly disagree to (7) = strongly agree. The self-oriented and socially prescribed subscale scores were calculated from the responses, with higher scores indicating higher levels of perfectionism. Cronbach's alphas for the two subscales were .86 (socially prescribed) and .91 (self-oriented).

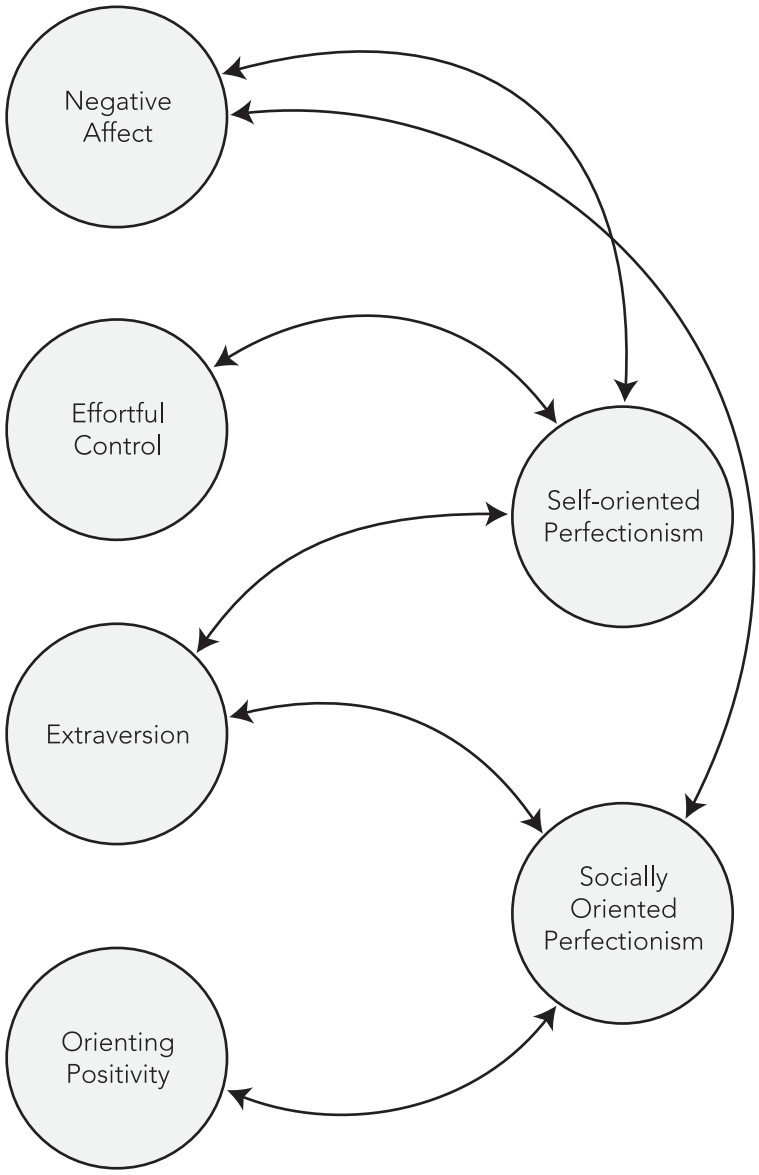
The Big Five Inventory

This inventory measures five subscales related to broad personality dimensions: conscientiousness, neuroticism, openness, extraversion, and agreeableness (John et al., 2008). Participants rated their agreement on 44 items related to their personality on a 5-point Likert scale, ranging from strongly disagree (1) to strongly agree (5). Students are asked to rate phrases such as: I see myself as someone who "worries a lot" or "gets nervous easily." For the current study, Cronbach's alphas for the five subscales ranged from .80 to .88.

Data Analysis

To address the goals of the study outlined above, a latent class analysis (LCA) of the structural equation model

Figure 1: Latent variable correlation model for adult temperament and perfectionism



(Figure 1) for perfectionism (MPS) and temperament (ATS) was fit to the data allowing the interfactor correlations among the two traits to vary across latent classes. The candidate models included from 1 to 4 classes and selection of the optimal model was done using the AIC, BIC, and aBIC, with the lowest value being associated with the best fitting model. In addition, the bootstrap likelihood ratio best (BLRT) with 1000 bootstrap samples was used to assess the null hypothesis that k latent classes fit the data better than k-1 latent classes. This number of bootstrap samples was recommended based on simulation research reported by Nylund et al., (2007). Prior to fitting the LCA, confirmatory factor analysis (CFA) was used to assess the measurement models for MPS and ATS separately. The measurement model for ATS included the items for the 4 factors that appear on the left side of Figure 1 with each being associated only with its hypothesized factor; i.e., no cross-loaded items. Likewise, the measurement model for MPS included the items associated with self-oriented and socially oriented perfectionism with no cross-loadings. The models were fit with the Mplus software

Table 1: Fit indices for measurement models

Model	RMSEA (90% CI)	CFI (90% CI)	TLI (90% CI)
MPS	0.019 (0.018, 0.022)	0.974 (0.907, 0.994)	0.979 (0.973, 0.981)
ATS	0.038 (0.037, 0.039)	0.945 (0.935, 0.954)	0.960 (0.944, 0.968)

Table 2: Fit index values for latent class models

Model	AIC	BIC	aBIC	BLRT
1 class	186033.96	187917.60	186571.92	
2 classes	186009.053	187841.17	186550.38	<0.0001
3 classes	186006.78	187755.00	186399.95	0.0024
4 classes	186017.03	187824.62	186406.10	0.3105

package, version 8.1 (Muthèn & Muthèn, 2021) using the maximum likelihood algorithm. The maximum likelihood estimation assumption of multivariate normality was assessed using Mardia's Test and found to hold for the data. Commonly used statistics, including *RMSEA*, *CFI*, and *TLI*, along with confidence intervals for each, were used to assess the fit of the models to the data. Standard cut-off values were used for these statistics per Kline (2016), with *RMSEA* ≤ 0.05, *CFI* ≥ 0.95, and *TLI* ≥ 0.95 indicating good model fit. If the measurement models were found to adequately fit the data based on these model fit indices, the LCA was then used to address the research goals of the study.

In order to characterize the classes obtained from the LCA, comparisons were made with respect to demographic characteristics (Table 4) and scores on perfectionism, temperament, and the five factor model of personality (FFM). The latent class comparisons for categorical demographics were made using the Chi-square test of association, with the Benjamini-Hochberg correction used to control the Type I error rate across the tests. Multivariate analysis of variance (MANOVA) was used to compare latent class means with respect to perfectionism, temperament, and personality. For statistically significant MANOVA results, discriminant analysis (DA) was used to identify the variables driving the results. Structure coefficients of 0.32 or greater denoted variables deemed to be important in differentiating the groups (Tabachnick & Fidell, 2022).

Results

Measurement Models

As described above, prior to fitting the latent class models to the data, the measurement models for perfectionism and temperament were assessed using *CFA* (Figure 1). The model fit statistics and their 90% confidence intervals appear in Table 1. Acceptable model fit was defined as *RMSEA* of 0.05 or lower, *CFI* of 0.95 or higher, and *TLI* of 0.95 or higher (Kline, 2016). The results in Table 1 show that the measurement models for both perfectionism and temperament yielded acceptable fit to the data. Therefore, it was determined that the latent class analysis could proceed.

Latent Class Analysis

Table 2 includes the model fit statistics for the 1, 2, 3, and 4 class solutions. The results of the BLRT indicated that the 3 class solution fit the data significantly better than did the 2 class solution, whereas the 4 class solution did not yield better fit than the 3 class model. In addition, the AIC, BIC, and aBIC were all minimized for the 3 class solution. Together, these results suggest that the 3 latent class solution was the optimal model. This result means that it is possible to divide the sample into three groups based upon differences in the interfactor correlations.

The correlations among the latent variables appear in Table 3 for the overall sample, and by latent class. In addition, the number of individuals in each class as

Table 3: Latent correlation coefficients for higher level factors

	Negative Affect	Effortful Control	Extraversion	Orienting Positivity
		Overall		
Self-Oriented	0.31*	0.17*	-0.08	0.12*
Socially Prescribed	0.41*	-0.14*	-0.25*	0.13*
		Latent class 1 (*N*=64)		
Self-Oriented	0.164	0.302*	-0.501*	-0.253*
Socially Prescribed	-0.196	0.214	0.076	-0.325*
		Latent class 2 (*N*=50)		
Self-Oriented	-0.494*	0.216*	0.005	0.606*
Socially Prescribed	-0.246*	-0.482*	-0.483*	0.283*
		Latent class 3 (*N*=318)		
Self-Oriented	0.421*	0.145	-0.047	0.137*
Socially Prescribed	0.517*	-0.191*	-0.234*	0.195*

*$p \leq 0.05$

Table 4: Demographic means (standard deviations) by latent class and structure coefficients from discriminant analysis

Variable	Class 1	Class 2	Class 3	Overall	Structure coefficient
Self-oriented	75.44 (19.44)	80.67 (16.25)	75.52 (15.98)	75.82 (16.28)	0.92
Socially prescribed	48.87 (15.44)	56.83 (15.10)	55.86 (13.83)	55.41 (14.11)	0.39
Negative Affect	3.48 (0.95)	3.71 (0.68)	4.35 (0.69)	4.24 (0.76)	0.77
Effortful control	4.13 (0.95)	3.81 (0.89)	4.39 (0.75)	4.33 (0.79)	0.23
Extraversion	4.80 (1.00)	4.47 (1.04)	4.44 (0.80)	4.47 (0.83)	-0.02
Orienting positivity	5.22 (0.90)	4.63 (0.87)	4.92 (0.81)	4.95 (0.83)	-0.14
Neuroticism	18.53 (5.79)	20.20 (6.65)	24.79 (6.74)	24.02 (6.92)	0.81
Openness	41.88 (6.05)	41.20 (6.27)	38.56 (6.44)	38.98 (6.47)	-0.46
Conscientiousness	33.94 (7.64)	31.92 (6.03)	34.42 (6.00)	34.23 (6.15)	0.23
Agreeableness	34.56 (7.02)	33.24 (6.85)	33.62 (5.93)	33.67 (6.07)	-0.07
Extraversion	26.28 (7.29)	25.04 (8.49)	24.51 (7.24)	24.68 (7.32)	-0.17

well as the statistical significance (α=0.05) are also presented in the table. For the entire sample, self-oriented perfectionism was positively correlated with negative affect, effortful control, and orienting positivity. Socially prescribed perfectionism was also positively correlated with both negative affect and orienting positivity, but negatively correlated with effortful control and extraversion. Based on Cohen's (1988) guidelines, the statistically significant correlation values were in the small range, with the exception of those for negative affect.

The class specific correlations revealed a number of differential patterns across classes. The results for class 3 were the most similar to those for the overall sample, which is to be expected given that this class was the largest of the three. More specifically, the statistically significant correlation values for this class were generally somewhat larger than was true for the overall sample. The correlation between self-oriented perfectionism and effortful control was not statistically significant for class 3, whereas it was for the overall sample. Class 1 was marked by a lack of significant correlations involving negative affect, a moderate positive correlation between self-oriented and effortful control, a large negative correlation between self-oriented and extraversion, and negative correlations between orienting positivity and both perfectionism traits. Finally, class 2 exhibited statistically significant negative correlations between negative affect and both types of perfectionism, and positive correlations between orienting positivity and both perfectionism traits. In addition, this class had moderate negative correlations between socially prescribed perfectionism with both extraversion and effortful control.

As noted in the Methods section, MANOVA was used to compare the latent class means for three different variable sets. First, results of the MANOVA for the two types of perfectionism were statistically significant ($F_{4,808}$=2.54, p=0.039, η^2=0.102). Structure coefficients obtained from the follow-up DA (Table 5) indicated that self-oriented perfectionism (0.92) was the primary driver of the differences among the latent classes, with socially prescribed perfectionism (0.39) contributing somewhat less to the group differences. A review of the means in Table 4 show that latent class 2 had the highest mean for self-oriented perfectionism, with the means for classes 1 and 3 being very close to one another. In addition, the socially prescribed mean was lowest for latent class 1, with the means of classes 2 and 3 being within 1 point of one another. Approximately 10% of the variance in perfectionism scores was associated with latent class membership.

With respect to the temperament variables, the MANOVA results were statistically significant ($F_{8,596}$=9.62, p<0.001, η^2=0.114). The DA structure coefficients in Table 4 reveal that only negative affect (0.77) drove the statistically significant MANOVA result. None of the other variables exhibited structure coefficients that met the 0.32 standard to be considered important (Tabachnick & Fidell, 2022). An examination of the means shows that class 3 had the highest value, followed by class 2, and with class 1 having the lowest mean negative affect. Approximately 11% of the variance in these variables was associated with latent class membership.

Finally, to support the results of the adult temperament dimensions, results of the MANOVA for the Big Five Inventory means identified a statistically significant difference in means among the three classes ($F_{10,784}$=5.04, p<0.001, η^2=0.117). Latent class accounted for 11.7% of the variance in differences for the set of five measures. The DA structure coefficients (Table 4) revealed that the group differences were primarily driven by neuroticism and openness, with no other variable reaching the standard for being considered further (Tabachnick & Fidell, 2007). Given the means in Table 4, it can be seen that latent class 3 had the highest mean for neuroticism, followed by class

2, with class 1 having the lowest mean. With respect to openness, class 3 had the lowest mean, with classes 1 and 2 having comparable (and higher) means.

Summary of Results

Considering the results together, the following conclusions can be reached with respect to the latent classes. Latent class 3 was the largest and had positive correlations between both self-oriented and socially prescribed perfectionism with negative affect and orienting positivity. In addition, the correlation between socially prescribed perfectionism and both effortful control and extraversion were negative. This group also had the highest mean for negative affect and neuroticism (along with class 2) and the lowest mean openness. Latent class 2 was the smallest and had positive correlations between self-oriented perfectionism and both effortful control and orienting positivity. In contrast, the correlation for socially prescribed perfectionism with negative affect, effortful control, and extraversion were all negative, whereas it had a positive correlation with orienting positivity. Finally, those in latent class 2 had the highest means for both self-oriented and socially prescribed perfectionism, relatively lower means for negative affect and neuroticism, and relatively higher mean openness. Finally, for latent class 1, self-oriented perfectionism was positively correlated with effortful control and negatively correlated with both extraversion and orienting positivity. The correlation between socially prescribed perfectionism and orienting positivity was negative, which differed from the results seen for the other two classes. Those in class 1 had the lowest means for socially prescribed perfectionism, negative affect, and neuroticism. In contrast, they had the highest mean value for openness.

Discussion

Despite the wealth of research on personality and perfectionism, researchers have not fully examined the relationships between perfectionism and temperament. Although Leung et al. (2020) used a person-centered approach to examine temperament profiles in medical students to predict differences in perfectionistic concerns and perfectionistic strivings, our purpose was to examine potential subgroups of high ability undergraduates based on differences in the strength of relationships among perfectionism and temperament dimensions. According to Flett, "There is substantial heterogeneity among perfectionists; thus, two people could have comparable patterns and levels of perfectionism but differ markedly in the etiology of these patterns and levels of perfectionism" (Flett & Hewitt, 2022; p. 131). Theoretical models suggest the etiology of perfectionism involves children's temperament as an important factor. Children's temperament evolves into more stable personality traits, such as perfectionism, through interactions within their environment (Shiner & DeYoung, 2013). Although our results cannot address the etiology of perfectionism, they suggest that temperament, as a construct representing innate biological tendencies, is an important factor that should be further investigated.

To interpret our findings, previous research on temperament, personality and perfectionism and the overlapping constructs of negative affect / neuroticism, effortful control / conscientiousness / persistence, and extraversion/extraversion (Evans & Rothbart, 2007) were examined. Moreover, as opposed to the general terms of perfectionistic strivings and perfectionistic concerns, the specific terms from our perfectionism measure—self-oriented and socially prescribed—will be used to discuss our results. Our results for the overall sample for the relationships between temperament and/or personality and perfectionism dimensions are consistent with patterns found in previous research:

1) self-oriented perfectionism and socially prescribed perfectionism were associated with negative affect (Smith et al., 2019; Sticker et al., 2019);
2) self-oriented perfectionism associated with high effortful control and socially prescribed perfectionism associated with lower effortful control (Kobori et al., 2005; Smith et al., 2019; Sticker et al., 2019); and
3) socially prescribed perfectionism associated with low extraversion (Smith et al., 2019; Stoeber et al., 2018)

Given the positive relationship to negative affect and high effortful control for self-oriented perfectionism in the overall sample, these results may represent the temperament profile of individuals with perfectionistic striving as having "a temperament characterized by extreme persistence and some degree of fearfulness "(Flett & Hewitt, 2022, p. 143). Examining the correlations among the subscale scores for self-oriented perfectionism and socially prescribed perfectionism, this hypothesis was supported: the fear subscale had significant correlations of .34 and .32, for self-oriented perfectionism and socially prescribed perfectionism, respectively, and the activation control subscale (i.e., approaching and attending to a task one would rather avoid) had a significant correlation of .24 for self-oriented perfectionism and no significant relationship to socially prescribed perfectionism. Given these relationships, individuals with self-oriented perfectionism in high ability students may be characterized as having temperaments with high levels of fear and persistence.

Yet the patterns of perfectionism and temperament in the three subgroups indicate the importance of looking beyond correlations within the overall sample. Given that the results for the overall sample are consistent with previous research, subgroups will be compared to the overall results (see Table 3). Latent class 3, the largest

subgroup, mirrored the patterns found for the overall sample, except for no positive relationship between effortful control and self-oriented perfectionism. Latent class 2 was also similar in the relationships between perfectionism and temperament compared to the overall sample, with one major exception: both self-oriented perfectionism and socially prescribed perfectionism had significant negative relationships to negative affect. Latent class 1 as a subgroup revealed no relationship between perfectionism and negative affect. These findings are inconsistent with a wealth of research that has documented positive relationships between perfectionism, negative affect, and neuroticism (Cruce et al., 2012; DeCuyper et al., 2015; Egan et al., 2015; Rice et al., 2007; Ulu & Tezer, 2010, Stoeber et al., 2018).

Supporting the results of the latent profile analysis, results of the MANOVA indicated that negative affect was the primary driver of the temperamental subgroup differences. In addition, this result was supported with the Big Five dimension of neuroticism which was also a significant dimension related to differences among the three subgroups. The prominent role of negative affect and its relationships with perfectionism in differentiating the subgroups might be due to the different ways that high ability students perceive their neuroticism. According to Shiner (2019), some people may prefer to express their neurotic traits, stating that "…when people who are high on neuroticism want to perform effectively, they prefer to experience worry, and they may even perform better when in a worried state" (p. 143). In a sample of adolescents, Damian et al. (2021) found positive bi-directional effects of perfectionistic concerns and negative affect using cross-lag panel analysis. Thus, perfectionistic concerns may help individuals perceive threats, which leads to higher levels of worry and negative emotions but may also help these individuals avoid threats as a coping mechanism. Differences among high ability students in the three different subgroups may stem from how they perceive their negative affect as supporting their attempts to be perfect or hindering their attempts to be perfect.

There has been no research that has examined the relationship between orienting sensitivity and perfectionism, but the results for the overall sample revealed a positive relationship between orienting sensitivity and both self-oriented perfectionism and socially prescribed perfectionism. Although the means were not significant across the three subgroups for orienting sensitivity, like negative affect, the relationship between perfectionism and orienting sensitivity was different among the three subgroups: negative correlations for latent class 1; large positive correlations for latent class 2; and smaller positive correlations for latent class 3. Given the lack of previous research in orienting sensitivity and perfectionism, it is difficult to interpret this finding. Orienting sensitivity was related to openness in adulthood (Evans & Rothbart, 2007) and openness has been consistently associated with intelligence (Ashton et al., 2000; DeYoung et al., 2005). Yet research on openness and perfectionism have generally failed to find strong significant relationships (Smith et al., 2019; Stricker et al., 2019). However, in the current study, openness, along with neuroticism, significantly contributed to subgroup differences. Given the association with openness and intelligence, the results of different relationships between perfectionism and orienting sensitivity in our study might be related to our sample of honors college students. Moreover, might there be a complex interactive relationship between negative affect and openness for gifted students that alters the experience of being a perfectionist? Future research on orienting sensitivity, openness, and perfectionism will need to replicate our findings of three latent classes within the general population.

Limitations and Future Research

Replications of this research in the general population should also include a more diverse sample of students. One limitation of our research was the majority white student sample with many students reporting that they had parents with college or graduate degrees (i.e., 66.2% of mothers and 64% of fathers). Considering that parental education can be used as a proxy for socioeconomic status (SES), students in the current study likely came from middle- to high-income families. The higher SES, white students included in the current study limits the generalizability of our results. Given the limitations of our sample and the exploratory nature of this study, much more research is needed to determine how temperament impacts the experience and/or development of perfectionism (Flett et al., 2022). Several studies with children and adolescents examining different aspects of temperament and perfectionism have demonstrated significant findings to warrant additional research. Affrunti et al. (2016) examined a self-report measure of perfectionism completed by 7- to 13-year-old children [Children and Adolescent Perfectionism Scale; Flett et al., 1997], the fear subscale of the Temperament in Middle Childhood Questionnaire (Simonds & Rothbart, 2004), and the Behavioral Rating Inventory of Executive Functions (BRIEF; Gioia et al., 2000) completed by parents. Only the interaction of children's fearful temperament and cognitive shift (i.e., the ability to flexibility solve problems and alternate attention) predicted perfectionistic concerns (Affrunti et al., 2016). In a longitudinal study of children ages 7- to 11-years old, children's levels of surgency (e.g., activity level, excitability) predicted a pattern of initial high, then decreasing perfectionistic concerns (Hong et al., 2016), with the facets of impulsivity and high-intensity pleasure as significant predictors for surgency. In another longitudinal study with adolescents, perfection-

istic concerns increased over time with difficulty with emotional regulation, including difficulties controlling impulsive behaviors when distressed (Vois & Damian, 2020). Despite this preliminary work, researchers have focused on different aspects of temperament (e.g., fear, emotional regulation, surgency) and used different samples (children, adolescents) and designs, making it difficult to draw strong conclusions about the impact of temperament on the development of perfectionism.

To fully understand the role of temperament on perfectionism, a large scale, longitudinal study of young children through adolescence is needed to determine how temperament and parenting, which has been the major focus on theoretical and empirical work on the development of perfectionism, may interact over time to evolve into perfectionistic strivings and/or perfectionistic concerns. Within this large-scale study, populations of high ability and typically developing children should be included to determine if intellectual ability alters the developmental pathway toward perfectionistic traits. Future longitudinal studies should also examine other-oriented perfectionism—thoughts and feelings that other people should be perfect—as only self-oriented perfectionism and socially prescribed perfectionism were examined in our study. Low levels of agreeableness have been associated with other-oriented perfectionism (Hill et al., 1997; Smith et al., 2019).

In conclusion, our research has demonstrated that relationships between individuals' temperament and perfectionism show different patterns across subgroups of high ability students. Although the largest subgroup (latent class 3) revealed the same patterns of relationships observed in prior research, latent class 1 (n = 64) and latent class 2 (n = 50) had unique patterns from latent class 3 and each other. In particular, the relationships between perfectionism and negative affect and perfectionism and orienting sensitivity differed across the three subgroups. Given the significantly different means for negative affect among the three subgroups, negative affect may play an important role in the experience of perfectionistic traits, with variations from low to high negative affect in relation to perfectionism. Temperament may be an important factor as researchers of gifted students examine subgroups with person-centered data analysis and outcomes such as motivation, coping strategies, and psychological constructs (Cross et al., 2018; Mofield & Peters, 2015; Rinn et al., 2020). Most importantly, this exploratory study demonstrated that there is no single temperamental profile associated with perfectionism, and instead, temperament might help explain the heterogeneity among perfectionists.

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Article

SENG Journal
Vol. 2, No. 1, 25-37

Parents' Perceptions of Children's Psychosocial Adaptation During the COVID-19 Pandemic in Québec: Comparison of Gifted with Non-Identified Gifted Children

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Abstract

Studies conducted in French Canadian schools following the COVID-19 lockdown report that children in a pandemic might have difficulties adapting. Gifted and twice-exceptional children—who might present special needs in this situation—could have different levels of psychosocial adaptation and mental-health needs than other children. This study assessed the psychosocial adaptation of gifted and twice-exceptional children and compared the adaptation levels of these individuals to those of non-identified gifted children. The results show that 62.5% of the gifted children had generally coped well with pandemic conditions, as did the non-identified gifted children (73.9%). Conversely, 59.5% of twice-exceptional children presented difficulties in adapting to the pandemic situation regardless of subscale (e.g., depression, anxiety, aggressiveness). Accordingly, they exhibited more internalized ($p < .001$) and externalized ($p < .001$) behaviors than the non-identified gifted children and more externalized behaviors than the gifted ($p = .014$). The children in the gifted sample exhibited age and gender differences, with the youngest showing more externalized difficulties than the older children and the boys showing more externalized behaviors than the girls. Taken together, these results suggest that giftedness is not an indication of a propensity for developing skills for adapting to pandemic conditions. It appears that having a neurodevelopmental condition associated with giftedness is more significant because the twice-exceptional children had more difficulty adapting than the non-identified gifted and, on some subscales, than the gifted.

Keywords: *giftedness • child • adolescent • psychosocial adaptation • mental health • pandemic • COVID-19*

On March 11, 2020, the World Health Organization declared that the COVID-19 outbreak had reached pandemic proportions (WHO; World Health Organization, 2020). Considering the spread and rapid evolution of the situation, many countries implemented drastic containment measures involving, for employed adults, the reduction of in-person occupational activities, except for workers deemed essential (Di Domenico et al., 2020), and, for children, schooling at home. In Quebec, the first confinement lasted 9 weeks and was followed by several others in 2021, depending on the region of Quebec and the severity of the spread of the virus. These measures and the situations they created had a direct impact on the functioning and reorganization of family routines since parents working at home also had to supervise their children's schooling.

Early studies quickly highlighted that the COVID-19 pandemic and the resultant containment could have a significant impact on children's psychosocial adaptation and mental health (Imran et al., 2020; Jiao et al., 2020; Pisano et al., 2020), characterized by internalizing behaviors (e.g., anxious and depressive symptoms, social withdrawal, and somatic complaints) and externalizing behaviors (e.g., hyperactive, aggressive, oppositional, and delinquent behavior) (Achenbach & Rescorla, 2001). Several meta-analyses now allow for a more detailed understanding of the nature of these effects on children. One study (Racine et al., 2021) involving 29 studies published all over the world (East Asia, Europe, North America, Central America, South America, and the Middle East), between March 2020 and February 2021, examined the adaptation of 80,879 children and adolescents under the age of 18 (M = 13 years, 4 to 17.5 years) in a pandemic setting. The results highlighted the risk of developing clinically significant symptoms of depression and anxiety. One in four children reportedly experienced symptoms of depression (25.2% of the sample), and one in five children reportedly experienced symptoms of anxiety (20.5% of the sample). These prevalences were double those of pre-pandemic data (12.9% and 11.6% for depression and anxiety, respectively), (Lu, 2019; Racine et al., 2021; Tiirikainen et al., 2019). This meta-analysis also points out gender- and age-related

DOI: 10.25774/2qcg-b576
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differences. Girls appeared to have more symptoms of depression and anxiety than boys. Older children developed higher rates of depression than younger children, which might be explained by the effects of social isolation and physical distance from peers, as well as by pubertal changes associated with the onset of adolescence. Results, similar to that of the Racine et al. (2021) meta-analysis, were reported by Panda et al. (2021), who added irritability and attention difficulties. Levels of anxiety (Baudry et al., 2021), as well as a sense of social isolation associated with the presence of frustration, boredom, disappointment, and nostalgia for the many canceled activities (Centers for Disease Control and Prevention, 2020; Dalton et al., 2020), were also present in the oldest age group (e.g., sports competitions, visiting grandparents).

While this lived reality for children and adolescents seems to be increasingly documented, little data are available on children with special needs, except certain conditions such as attention deficit hyperactivity disorder (ADHD; Bobo et al., 2020) and autism spectrum disorder (ASD; Kawaoka et al., 2022; Meral, 2022). Little research has been conducted on gifted children, even though they might have differences in adaptation given their characteristics and needs (Neihart & Yeo, 2018; Rinn, 2018).

While it may be assumed that being gifted is associated with high levels of well-being and good coping skills (Koenen et al., 2009; Rajput et al., 2011), there is no consensus in the literature on this. Indeed, some researchers have shown that while gifted children might not have more adaptation difficulties in general, they may have certain characteristics that make them more vulnerable (Brown, 2021; Neihart, 1999; Pfeiffer & Stocking, 2000; Preckel et al., 2015). As an example, gifted children becoming aware of their difference by comparing themselves to their peers might experience frustration and a sense of mismatch between their school environment, needs, and interests (Kennedy-Moore & Lowenthal, 2011; Niehart & Yeo, 2018). Specifically, they may feel out of step with same-age peers and have difficulty finding people who are like them and with whom they share similar interests and skills. These elements contribute to the fact that gifted children prefer to work or play alone rather than in groups (Neihart & Yeo, 2018). Gifted children have also been reported as being more hypersensitive than the non-identified gifted, in particular, on the sensory, emotional, and cognitive levels (Winkler & Voight, 2016). Together, these elements could explain their encountering greater relationship difficulties and a sense of isolation, which could impede their sense of well-being. Recently, Neihart and Yeo (2018) documented the unique psychological challenges faced by gifted children and young adolescents. They noted a higher level of anxiety and perfectionism than among the non-identified gifted, as well as greater uncertainty about the future. Different variables have been studied to better understand the adaptation challenges experienced by some gifted children. This includes studies that focused on children's ages and associated developmental needs to determine whether key periods might be more difficult than others in terms of psychosocial adaptation. One such study found that gifted children had more difficulty adapting to adolescence than the children identified as non-identified gifted (Silverman, 2012). Accordingly, gifted junior-high students would potentially have lower self-esteem than gifted senior-high students. Similarly, the hypersensitivity shown by some gifted students causes more difficulties in younger students.

Gender is also a variable of interest often considered in research to establish whether differences between boys and girls could explain certain variations in the results observed concerning the level of adaptation, especially in the context of giftedness, where gender distinctions are very evident. Compared to gifted boys, gifted girls are more likely to deny their giftedness (Swiatek & Cross, 2007), maintain a high level of physical activity, in sports for example (Swiatek, 2001), and give help to others (Rudasill et al., 2007). Boys, on the other hand, are more likely to use humor as a social coping strategy (Swiatek 2001; Swiatek & Cross, 2007).

Within the gifted population, a subgroup with a comorbid diagnosis of giftedness has also been a frequent consideration in research. Referred to as twice-exceptionality (2e), it includes individuals with both high intellectual potential and one or more neurodevelopmental disorders such as a communication disorder, specific learning disorder, ASD, ADHD, or motor disorder (Reis et al., 2014). The psychosocial-adaptation situation varies for twice-exceptional students depending on the associated disorder. Gifted students with ADHD have been found to have more mental health problems than gifted students without ADHD, including anxiety, mood disorder, school phobia, and behavioral disorders (Antshel, 2008; Cordeiro et al., 2011). In contrast, Moon et al. (2001) found that gifted students with ADHD had more intense emotional and social problems than students with average IQs and ADHD. Furthermore, studies have shown that gifted students with ASD exhibited lower adaptive functioning (Doobay et al., 2014) and more social difficulties (Assouline et al., 2009; Doobay et al., 2014) than gifted students without ASD. Other researchers found that gifted students with ASD were more aware of their difficulties in adolescence, which can lead to more social stress, feelings of inadequacy, anxiety, and depression compared to students with an average IQ and ASD (Doobay et al., 2014; Foley-Nicpon et al., 2011). Kauder (2009) found that gifted students with ASD had lower self-esteem and feelings of inadequacy as well as more depressive symptoms and

suicidal behaviors (Vaivre-Douret, 2019) than gifted students without a disorder. Compared to students with ASD and an average IQ, however, gifted students with ASD had fewer adaptation difficulties (Beckmann & Minnaert, 2018).

In the context of the pandemic, a few studies have looked at the academic adaptation of gifted children, particularly with respect to their education and the accommodations needed to support their learning (e.g., Hill & Madigan, 2022; Kaya & Akgül, 2022; Guilbault & McCormick, 2022). To our knowledge, only three studies have looked at their psychosocial adaptation to the situation (Aboud, 2021; Duraku & Hoxha, 2020; Wolfgang & Snyderman, 2022). Duraku and Hoxha (2020) conducted an initial qualitative study in Europe, conducted at the begining of the pandemic with 20 parents of gifted children that highlighted various difficulties faced by such children: sleep difficulties; feelings of isolation; higher levels of stress, anxiety, irritability, and boredom; disengagement from usual activities; and a lower sense of well-being. Other researchers, in the Middle East and North America, have made similar observations in interviews with the parents of gifted children (Aboud, 2021; Wolfgang & Snyderman, 2022). They added that, during periods of confinement, the children in their samples felt that they were doing things that were not necessary, which led to a series of negative feelings similar to those reported by Duraku and Hoxha (2020), plus boredom, sadness, anger, lack of motivation, and passiveness.

Given (1) the small number of studies examining the psychosocial adaptation and mental health of gifted children in a pandemic setting, (2) the unique use of qualitative interview-based designs, and (3) the very small number of children recruited in the studies (e.g., Duraku & Hoxha, 2020) limiting generalizability to the population of gifted children, a study should be conducted that addresses these limitations while comparing the population of gifted children to a population of non-identified gifted children. The last point will help determine whether gifted children face greater psychosocial challenges in adapting to the pandemic than other children. The presence of dual exceptionality in gifted youth should be considered to assess whether these children are more at risk than other gifted children and non-identified gifted children. In addition, variables such as child gender and age should be considered to measure their contribution to the adaptive functioning of gifted and twice-exceptional children.

Objectives

This study aimed to (1) describe the overall and specific adaptive functioning of gifted children and adolescents and then twice-exceptional children living in a pandemic context using a standardized tool; (2) determine whether certain variables influenced the adaptive functioning of gifted youth to the pandemic (e.g., age and gender); and (3) compare the adaptive functioning of gifted, twice-exceptional, and non-identified gifted children to determine if one of these groups is more at risk than another.

Method

Participants

The sample was composed of 235 gifted (31.5%) and non-identified gifted (68.5%) children aged 6 to 17 years from the province of Quebec (Canada). Just over half of the gifted youth were twice exceptional (56.8%), that is, they had a diagnosis of a specific learning disorder, ADHD, or ASD. Table 1 provides the sociodemographic characteristics of these children. To be recognized as "gifted," children had to demonstrate intellectual abilities that placed them in the top 10% of their peers. They also had to obtain a total score of 120 on a standardized scale (e.g., WISC-V, Wechsler; 2014) with the mean set at 100, placing the child in the 91 percentile or higher (Gagné, 2020). All were identified by psychology professionals or physicians as being gifted or twice exceptional as reported by parents in the survey.

The majority of survey respondents were mothers (97.4%), aged 40 to 49 years (50.6%). Prior to the pandemic, most parents reported working full time (71.6%). In addition, 52.4% of respondents had an annual family salary of more than C$100,000 (according to Quebec institute of Statistics (2022) the median household after-tax income in 2019 was 80,000$ in the province of Québec). During the pandemic, 7.2% lost their jobs and 35.7% of families experienced a wage loss of about 17% (*SD* = 24.55).

Procedure

Recruitment took place between May 1st and 27th, 2020, when the province was under a home-confinement order, except for essential workers. The population had already been under home confinement for 7 to 10 weeks at that point. Participants were recruited using social media and through advertising from two non-profit associations. The online survey was completed by the children's parents via the secure *Survey Monkey* platform. They completed the survey for one child regardless of the number of children. The platform randomly generated the instruction to answer (in a proportion of 50%) for either the oldest or the youngest child between the ages of 6 and 17 years.

Consent was obtained from all participants. All procedures were approved by the research ethics board of the principal investigator's university (Université du Québec à Trois-Rivières).

Table 1: Socio-demographic characteristics of gifted, twice-exceptional, and non-identified gifted children

Baseline Characteristics		Gifted n (%)	Twice-exceptional n (%)	Non-identified gifted n (%)
Gender	Female	14 (12.7)	10 (9.1)	86 (78.2)
	Male	18 (14.4)	32 (25.6)	75 (60.0)
Age	6–11 years	23 (14.3)	29 (18.0)	109 (67.7)
	12–17 years	9 (12.2)	13 (17.6)	52 (70.3)
Type of school	Public	26 (12.7)	33 (16.1)	146 (71.2)
	Private	6 (20.7)	9 (31.0)	14 (48.3)
	Other	-	-	1 (100.0)
Family structure*	Nuclear	28 (16.7)	29 (17.3)	111 (66.1)
	Single parent	3 (8.3)	6 (16.7)	27 (75.0)
	Blended	-	7 (25.0)	21 (75.0)
	Total	32 (13.6)	42 (17.9)	161 (68.5)

Note: *N = 232.

Instruments

As this study is part of a larger research project, only the instruments used in the context of this article are presented in this section.

Socio-demographic questionnaire

This questionnaire had two sections. The first section, consisting of 15 questions, was designed to collect sociodemographic information about the family, such as gender and age of children and parents, children's schooling, parents' education, region, family and employment status, presence of pre-pandemic diagnoses or other adaptation difficulties in children (e.g., Before the pandemic, did your child have a mental-health diagnosis?). The second section included 26 questions about their pandemic experience, such as direct exposure of the children and parents to COVID-19 during the pandemic, exposure to pandemic-related information, and the effects of the pandemic on their current situation.

Achenbach System of Empirically Based Assessment – Children Behavior Checklist (ASEBA-CBCL)

The ASEBA-CBCL 6-18 (Achenbach & Rescorla, 2001) was completed by parents to assess the mental health and adaptive functioning of the children and adolescents. This instrument includes 112 items rated using a 3-point Likert-type scale (0 = Does not apply, 1 = More or less or sometimes true, 2 = Very true or often true) for the children's behaviors in the preceding month. A raw overall score is obtained by summing the item responses for each scale and subscale. This is then converted into a T-score, which is used to determine whether the child is at a normal, at-risk, or clinical threshold, depending on age and gender. The ASEBA-CBCL contains three scales (Internalizing Problems, Externalizing Problems, and Total Problems) and eight subscales (Anxious/Depressed, Withdrawn/Depressed, Somatic Complaints, Social Problems, Thought Problems, Attention Problems, Rule-Breaking Behavior, and Aggressive Behavior). The instrument has excellent psychometric properties that are recognized internationally. Reported internal consistency ranged from good to excellent (α = 0.78 to 0.97) as did test—retest reliability (r = 0.96 to 1.00) (Achenbach, 2009). In addition, construct validity and content validity were satisfactory (Achenbach & Rescorla, 2001).

Statistical analyses

Statistical analyses were conducted with IBM SPSS Statistics software, version 24 (IBM Corporation, 2017). A review of the normality of the distributions and the presence of missing or extreme data was performed according to standard procedures (Tabachnik & Fidell, 2019). The data observed for the ASEBA-CBCL Aggressive Behavior variable for non-identified gifted children did not follow a normal distribution. Examination of the variable showed that almost all these children had a profile within the norm, which might explain the anomalous distribution. Nevertheless, no intervention is necessary since the analyses used are sufficiently robust and not very sensitive to normality.

Descriptive analyses were conducted to provide a picture of the overall adaptation of the children. The raw scores were transformed into T-scores (min = 50, max = 100). To determine the prevalence of difficulties in the study population, each of the T-scores was then categorized according to the standards established to determine the critical threshold of the scale (Achenbach & Rescorla, 2001). For the overall scales, a T-score ≤ 59 is considered in the normal range, a T-score ≥ 60 and ≤ 63 is a borderline-range threshold, and a T-score ≥ 64

indicates clinically significant symptomatology. With respect to the subscales, a *T*-score ≤ 64 is considered normal, a *T*-score ≥ 65 and ≤ 69 is considered clinical-range threshold, and a *T*-score ≥ 70 indicates clinically significant symptomatology. To compare the group differences according to the independent variables (gender, age, identification), two two-way MANOVAs were performed on the *T*-scores of the two ASEBA-CBCL overall scales. The first two-way MANOVA was performed to analyze the effect of gender (male/female) and belonging to one of these groups (gifted/twice-exceptional/ non-identified gifted) on functional adaptation. The second one was carried out to analyze the effect of age (6–11 years / 12–17 years) and belonging to one of these groups (gifted /twice-exceptional/ non-identified gifted) on functional adaptation. For both MANOVAs, the Box's test of equality of covariance matrices checks the assumption of homogeneity of covariance across the groups. Indeed, the Box's M test was not significant ($p < .005$), indicating no significant differences between the covariance matrices (Huberty & Petoskey, 2000). Therefore, the assumption was not violated, and Wilk's lambda is an appropriate test to use. The correlations in Table 2 show no multicollinearity between internalizing and externalizing problems ($r = .595$; moderate correlation). Lastly, a series of one-way ANOVAs was conducted to compare the effect of identification on the eight ASEBA-CBCL subscales.

Prevalence of adaptation difficulties

The ASEBA-CBCL results show that 62.5% of gifted children, 40.5% of twice-exceptional children, and 73.9% of non-identified gifted children were able to generally cope psychosocially to their situation. The findings also indicate that 37.5% of the gifted children, 59.5% of the twice-exceptional children, and 26.1% of the non-identified gifted children were at risk of adaptation difficulties or had clinically significant difficulties. With respect to the two major subscales (Internalizing problems and Externalizing problems), 68.8% of the gifted children, 54.8% of the twice-exceptional children, and 70.8% of the non-identified gifted children exhibited internalizing behaviors within the norm. With respect to externalizing behaviors, 59.4% of the gifted children, 42.9% of the twice-exceptional children, and 78.9% of the non-identified gifted children scored within the norm. Table 3 presents the prevalence of adaptation difficulties in gifted, twice-exceptional, and non-identified gifted children according to the clinical standards for each of the ASEBA-CBCL scales.

Influence of personal characteristics on adaptation difficulties

The first MANOVA showed no significant multivariate effect for the interaction effect [$F = .255$, $p = .907$; Wilks' $\Lambda = .996$, $\eta^2 = .002$]. Therefore, there is no overall difference between the functional adaptation scales and the interaction of gender and group membership (gifted, twice-exceptional, or non-identified gifted). Nevertheless, there is a multivariate main effect with the gender variable: [$F = 6.536$, $p = .002$; Wilks' $\Lambda = .946$, $\eta^2 = .054$] and group membership [$F = 5.901$, $p < .001$; and Wilks' $\Lambda = .904$, $\eta^2 = .049$].

Prior to conducting a series of follow-up ANOVAs, the homogeneity of variance assumption was tested for the two functional adaptive scales. Based on a series of Levene's *F* tests, the homogeneity of variance assumption was considered satisfied ($p > .05$). A series of ANOVAs was conducted on each of the two dependent variables as a follow-up test to the MANOVA. The results are presented in Table 4.

Gender differences on the externalizing problem scale show that boys ($M = 57.10$, $SD = 10.10$) had significantly more problems than girls ($M = 51.98$, $SD = 8.49$). Additionally, a series of post-hoc analyses (Bonferroni) were performed to examine individual

Table 2: Correlations between the ASEBA-CBCL scales

Scale and subscales	1	2	3	4	5	6	7	8	9	10
1. Anxious/Depressed	—	.529	.520	.572	.611	.410	.471	.443	.862	.542
2. Depressed		—	.409	.409	.537	.296	.550	.277	.725	.467
3. Somatic Complaints			—	.387	.486	.303	.335	.300	.655	.388
4. Social Problems				—	.510	.548	.479	.584	.561	.617
5. Thought Problems					—	.429	.665	.387	.684	.620
6. Attention Problems						—	.401	.566	.411	.604
7. Rule-Breaking Behavior							—	.434	.547	.769
8. Aggressive Behavior								—	.411	.842
9. Internalizing Problems									—	.595
10. Externalizing Problems										

Note: All correlations are significant at the 0.01 level (2-tailed).

Table 3: Frequency of adaptation difficulties in gifted, twice-exceptional, and non-identified gifted according to the clinical scales of the ASEBA-CBCL

Scale and Subscales	Gifted n (%)			Twice n (%)			Non-identified gifted n (%)		
	Normal range	Borderline range	Clinical range	Normal range	Borderline range	Clinical range	Normal range	Borderline range	Clinical range
Internalizing Problems	22 (68.8)	6 (18.8)	4 (12.5)	23 (54.8)	5 (11.9)	14 (33.3)	114 (70.8)	20 (12.4)	27 (16.8)
Anxious/Depressed	25 (78.1)	4 (12.5)	3 (9.4)	26 (61.9)	10 (23.8)	6 (14.3)	131 (81.4)	16 (9.9)	14 (8.7)
Depressed	29 (90.6)	1 (3.1)	2 (6.3)	30 (71.4)	7 (16.7)	5 (11.9)	138 (85.7)	11 (6,8)	12 (7.5)
Somatic Complaints	29 (90.6)	2 (6.3)	1 (3.1)	36 (85.7)	5 (11.9)	1 (2.4)	154 (95.7)	4 (2.5)	3 (1.9)
Externalizing Problems	19 (59.4)	4 (12.5)	9 (28.1)	18 (42.9)	8 (19.0)	16 (38.1)	127 (78.9)	12 (7.5)	22 (13.7)
Social Problems	30 (93.8)	1 (3.1)	1 (3.1)	36 (85.7)	2 (4.8)	4 (9.5)	150 (93.2)	5 (3.1)	6 (3.7)
Thought Problems	19 (59.4)	5 (15.6)	8 (25.0)	20 (47.6)	8 (19.0)	14 (33.3)	121 (75.2)	16 (9.9)	24 (14.9)
Attention Problems	27 (84.4)	3 (9.4)	2 (6.3)	28 (66.7)	4 (9.5)	10 (23.8)	136 (84.5)	12 (7.5)	13 (8.1)
Rule-Breaking Behavior	20 (62.5)	6 (18.8)	6 (18.8)	21 (50.0)	9 (21.4)	12 (28.6)	125 (77.6)	20 (12.4)	16 (9.9)
Aggressive Behavior	27 (84.4)	3 (9.4)	2 (6.3)	31 (73.8)	3 (7.1)	8 (19.0)	145 (90.1)	8 (5.0)	8 (5.0)
Total	20 (62.5)	5 (15.6)	7 (21.9)	17 (40.5)	8 (19.0)	17 (40.5)	119 (73.9)	18 (11.2)	24 (14.9)

mean difference comparisons across all three levels of group membership. The results revealed that post-hoc mean comparisons for internalizing problems were statistically significant between twice-exceptional and non-identified gifted students ($p < .001$). Twice-exceptional students ($M = 59.33$, $SD = 9{,}35$) showed more internalizing problems than non-identified gifted students ($M = 51.54$, $SD = 11.68$). In addition, the results revealed that post-hoc mean comparisons for externalizing problems were statistically significant between twice-exceptional and non-identified gifted students ($p < .001$) and between twice-exceptional and gifted students ($p = .014$). Twice-exceptional students ($M = 61.69$, $SD = 8.27$) showed more externalizing problems than non-identified gifted students ($M = 52.69$, $SD = 9.39$) and gifted students ($M = 55.65$, $SD = 8.83$).

The second MANOVA Age X Group Membership showed no significant multivariate effect for the interaction effect [$F(5,229) = .073$, $p = .990$; Wilks' $\Lambda = .999$, $\eta^2 = .001$]. Therefore, there was no overall difference between the functional adaptation scales and the interaction of age and group membership. Nevertheless, there is a multivariate main effect with the age variable: [$F(2,228) = 4.136$, $p = .017$; Wilks' $\Lambda = .965$, $\eta^2 = .035$], and group membership [$F(5,229) = 6.865$, $p < .001$; Wilks' $\Lambda = .890$, $\eta^2 = .057$].

A series of ANOVAs were conducted on each of the two dependent variables as a follow-up test to the MANOVA. All the ANOVAs were significant ($p < .001$) for belonging to a variable group (as the previous MANOVA). The ANOVAs with age were significant only for the externalizing problem scale [$F = 4.963$, $p = .027$, $\eta 2 = .021$]. The means show that the children aged 6 to 11 years ($M = 55.89$, $SD = 9.62$) had more externalizing behavior than the children aged 12 to 17 ($M = 52.12$, $SD = 9.45$).

Comparison of specific adaptation difficulties between subgroups: gifted, twice-exceptional, and non-identified gifted

ANOVAs revealed that there were statistically significant differences in all subscales, except for somatic complaints, as shown in Table 5. Post-hoc comparisons using the Bonferroni test indicate that the twice-exceptional students presented with significantly more difficulties than non-identified gifted students in certain subscales: anxious/depressed ($p = .011$), depressed ($p = .004$), social problems ($p = .007$), thought problems ($p = .006$), attention problems ($p = .002$), and rule-breaking behavior ($p < .000$). For aggressive behavior subscales, twice-exceptional students presented with significantly more difficulties than non-identified gifted students ($p < .000$) and gifted students ($p = .015$).

Table 4: Multivariate and univariate analyses of variance for Gender X Group membership on overall adaptation scales

		ANOVA F(2,235)	
Variable	MANOVA F (5,229)	Internalizing Problems	Externalizing Problems
Gender (G)	6.536***	.586	5.838*
Appartenance (A)	5.901***	8.251***	10,761***
G X A	.255	.505	.137

Note: The *F* ratios are the approximation of Wilks' *F* lambda.
*** $p < .001$, ** $p < .01$, * $p < .05$

Discussion

The objectives of this study were to (1) document the psychosocial adaptation of gifted and twice-exceptional children and adolescents living in the context of the COVID-19 pandemic; (2) test whether certain sociodemographic variables (gender, age, and group membership: gifted, twice-exceptional, or non-identified gifted) increased or decreased certain adaptation difficulties in gifted and twice-exceptional children; and (3) compare the psychosocial adaptation of gifted, twice-exceptional, and non-identified gifted children to determine if any one group was more at risk.

Overall, externalized, and internalized adaptation of gifted children and adolescents in a pandemic setting

According to their parents, more than half of the gifted children in the sample had no psychosocial adaptation difficulties when measured at the beginning of the COVID-19 pandemic. This is comparable to the results for the non-identified gifted children in this study's sample, two-thirds of whom had generally adapted to the pandemic context. Other research shows similarly encouraging results with respect to overall adaptation, with 92% of children adapting well at the beginning of the pandemic and only 8% showing difficulties (e.g., Pisano et al., 2020). These adaptation capacities can be explained in the same way for gifted and non-identified gifted children. In fact, according to some parents of gifted children, as in other studies conducted with non-identified gifted children (Bobo et al., 2020, Baudry et al., 2021; Meral, 2022), these skills related to the fact that their children felt happier during confinement when they had more time for activities as well as their interests and passions. The children mentioned various elements that facilitated their coping and promoted their well-being, such as access to technology (including video games and social media), family time to play sports, reading, drawing, or learning new skills in a self-directed way (e.g., cooking) (Duraku & Hoxha, 2020). The children also appear to have used different coping strategies to manage the stress that might have been present (e.g., self-confidence, optimism, and seeking social support when they needed it; Kaya & Islekeller-Bozca, 2021). The sample in our study consisted of socioeconomically advantaged subjects, which might mean that these families had, among other advantages, a supportive environment to help their children cope (such as access to a variety of resources or more space).

Despite these results, the fact remains that more than a third of the gifted children in the sample either had sufficient internalizing or externalizing symptoms to put them at risk of developing maladaptation or confirm the presence of difficulties. Concerning the subscales more specific to psychosocial coping difficulties, the gifted youth had results similar to those observed in the literature on non-identified gifted children (Imran et al., 2020; Pisano et al., 2020). Thus, on the internalizing scales, more than half of the gifted children had no symptoms, while slightly less than one-third were at risk or presented clinically significant symptoms. More specifically, a little more than one child in ten reported anxiety-related difficulties and nearly one out of ten had depression-related problems. On the externalizing

Table 5: Means, Standard Deviations, and One-way Analyses of Variance in adaptive functioning sub-scales

	Gifted		Twice-Exceptional		Non-identified gifted		*F* (2,232)	η^2
Subscale	*M*	*SD*	*M*	*SD*	*M*	*SD*		
Anxious/Depressed	56.68	7.35	60.14	8.43	56.13	7.79	4.355*	.036
Depressed	55.65	7.67	59.97	8.39	55.57	7.71	5.410**	.045
Somatic Complaints	53.87	6.84	55.97	6.05	53.62	5.34	2.855	.024
Social Problems	54.15	5.03	57.09	7.66	53.97	5.46	4.804**	.040
Thought Problems	60.75	8.50	63.21	8.55	58.67	8.33	5.128**	.042
Attention Problems	57.46	7.06	61.71	8.26	57.13	7.75	5.880**	.048
Rule-Breaking Behavior	60.12	7.59	63.85	7.05	58.21	7.58	9.586***	.076
Aggressive Behavior	55.65	6.77	60.42	9.67	54.13	6.42	12.912***	.100

Note: *** $p < .001$, ** $p < .01$, * $p < .05$

scales, more than half of the gifted children had no symptoms, while just over 40% were at risk or had clinically significant symptoms. Thought problems were the most prevalent, with just over one-third of gifted children reporting sleep difficulties, including difficulty falling asleep, waking up during the night, and staying asleep, as well as nervous tension and strange ideas. In terms of externalized behaviors, oppositional behaviors and rule-breaking behavior were reported for nearly one child out of three and attention problems for slightly more than one child out of six. The overall results, for both internalizing and externalizing behavior, appear similar to those found in other studies on gifted children (Duraku & Hoxha, 2020), non-identified gifted children (Imran et al., 2020; Jiao et al., 2020; Pisano et al., 2020), or children with adaptation disorders (Kawaoka et al., 2022). For example, Pisano et al. (2020) reported the presence of risky and clinically significant behaviors in similar proportions at the internalizing (nearly one-third of their sample) and externalizing levels. The presence of symptoms of anxiety/depression, sleep difficulties, as well as oppositional behaviors are also reported in identical proportions. While being gifted does not seem to influence how well these children have adapted to a pandemic context, it appears that being twice exceptional might have an influence.

Overall, externalizing, and internalizing adaptation of twice-exceptional children in a pandemic context

Indeed, it appears that twice-exceptional children and adolescents adapt differently from other gifted young people. Less than half of them were able to adapt overall to the pandemic situation and more than a third had clinically significant difficulties in adapting overall. On the internalizing scales, slightly more than half of the twice-exceptional youth had no symptoms, while more than a quarter were at risk or had clinically significant symptoms. More specifically, slightly more than one child in three reported anxiety-related difficulties and slightly more than one child in four had depression-related problems. On the externalizing scales, more than half of the children were at risk or had clinically significant symptoms. The difficulties most reported by parents were thought problems, attention problems, and rule-breaking behavior. While twice-exceptional children are often the focus of concerns about their psychosocial adaptation skills, it seems that, in the pandemic context, their vulnerability must also be considered in light of these findings. It appears that being twice exceptional might exacerbate difficulties already present outside of the pandemic context (Foley-Nicpon et al., 2011; Mullet & Rinn, 2015).

Contribution of sociodemographic variables

As for age, the gifted children aged 6–11 exhibited more externalizing behaviors than the older children (12–17 years). It does not appear that, in the context of a pandemic, this result is directly related to giftedness since several other studies have reported it in the non-identified gifted population. For example, Imran et al. (2020) reported that the youngest children in their sample exhibited more aggressive behavior (e.g., opposition, anger, defiance) as well as regressive behavior (e.g., needing to be hugged often). They suggest that parents might be passing on their stress to the younger children. That would partly account for the differences between the younger children and adolescents. Since adolescents tend, at this developmental stage, to be closer to their peers and more distant from their parents, they might also be less affected by their parents' stress (Baudry et al., 2021). Although not typical, it might be possible to make a link between the response of younger children, giftedness, school closures, and homeschooling, even though there is no study comparing the situation before and during the pandemic. Indeed, in the context of confinement and home schooling, the younger gifted children might not have been stimulated to the extent they needed. Moreover, they mighty exhibit feelings of boredom (a well-documented issue for these children) and engage in inappropriate behavior. This could result in more externalizing behavior such as attention problems or aggressive or oppositional behavior, especially among twice-exceptional children. Such behavior would not be surprising when the parents were working at home and could not be available to take care of their child all the time, as might be the case in the classroom where an adult could keep them occupied. This is especially true for the younger children, since adolescents tend to be more independent and self-reliant. Thus, the lack of stimulation, the lack of adult guidance and supervision, and the lack of concrete accomplishments that do not counteract boredom could be linked in part to the presence of externalizing behavior.

As for gender, boys showed more externalizing behavior than girls. As with the differences between the two age groups, this gender difference does not appear to be specific to gifted children, nor to the pandemic. Indeed, a Baudry et al. (2021) study in the pandemic context involving the non-identified gifted concluded that the boys and girls in the sample experienced the same differences in adaptation difficulties. The gifted boys in this study had more externalizing difficulties and tended to argue more often, shout, or fight and to have more mood swings than girls. The scientific literature recognizes that such gender differences occur even in the context of so-called "normal" life (American Psychological Association, 2013).

Comparing the adaptation of gifted, twice-exceptional, and non-identified gifted youth

Based on the results, and as suggested by the descriptive analyses, the adaptive functioning of twice-exceptional

children appears to be different when compared to gifted children and non-identified gifted children. The gifted children were indistinguishable from the non-identified gifted children and demonstrated similar coping skills to their peers, as is the case outside of the pandemic (Brasseur, 2021). The twice-exceptional children stood out and presented more adaptation difficulties compared to the gifted and non-identified gifted children. Specifically, they differed the most from the non-identified gifted children on a set of subscales; being more at risk of or presented with more overall adaptation difficulties, more internalizing behavior, and more externalizing behavior than the non-identified gifted children. They had more anxiety, depression, social, thought, attachment, oppositional, and aggressive symptoms. Although not significantly different from other gifted children without dual exceptionality on the total, internalizing, and externalizing scales, the twice-exceptional children exhibited significantly more aggressive behavior than the gifted children. Taken together, these findings could be explained in part by the presence of the specific characteristics and needs that these twice-exceptional children already had before the pandemic (Foley-Nicpon et al., 2011) which could be exacerbated by the unique living conditions imposed by the pandemic (Kawaoka et al., 2022; Meral, 2022).

Considering the presence of neurodevelopmental difficulties in twice-exceptional children associated with more difficulties in psychosocial adaptation and higher levels of anxiety and depression than in other gifted children (Doobay et al., 2014; Mugnaini et al., 2009), it seems reasonable to conclude that, in the pandemic context, these children might react more strongly and have more anxiety, sleep difficulties, and aggression than others dealing with the same situation. A higher level of anxiety, depressive symptoms, and sleep difficulties could also be explained by their thinking and reaction to the magnitude, severity, and uncertainty of the situation. Such a scenario is highly reflective of the 'unknown' that gifted children have more difficulty dealing with highly sensitive to change and, for some, experiencing a sense of inadequacy between their environment and their needs, it could be as Neihart and Yeo (2018) posited that the substantial environmental change (e.g., school closure, organization of home schooling, family reorganization) imposed by the pandemic impacted adaptive functioning generating anger, aggression and oppositional behavior. These results are consistent with those of qualitative studies, which, while not specifically addressing the twice-exceptional population, have addressed the issue of adaptation of gifted children through interviews with parents. The parents emphasized how the pandemic situation seems to have impacted their children's adaptive functioning including sleep difficulties, feelings of loneliness, boredom, sadness, and anger (Duraku & Hoxha, 2020). These results are consistent with past research indicating that twice exceptional children are often at greater risk than others for adaptation difficulties (Mugnaini et al., 2009) and that it is therefore important to consider these factors as indicators of care in order to prevent the situation from worsening and leading to irreversible problems.

Another factor implicated in the adaptation difficulties presented by gifted and twice-exceptional children could be school closures. Wolfgang and Snyderman (2022) reported that, when not being able to be around and interact with their friends, gifted youth might develop a sense of isolation such as described in other studies on the non-identified gifted population (Baudry et al., 2021; Pisano et al., 2020). In the context of a pandemic, this sense of isolation is associated with higher levels of stress and anxiety than when it is absent (Dalton et al., 2020). Gifted children might present relational issues in normal times, as they often lack a sense of connection with same age peers (Terrassier, 2009). Given that, it is conceivable that school closures might further reduce their opportunities for interaction, increasing feelings of isolation that are related to adaptation difficulties, such as those found herein. In addition, the mismatch between the few opportunities for interacting with others in confinement and their need for connected relationships could not only contribute to a sense of isolation but fuel a sense of mismatch between needs and the response to their needs. This may be even more true for adolescents, although the present results do not demonstrate this since relational dimensions take on greater significance in this period of life when identity construction and the development of autonomy and independence take on greater importance.

Limitations

There are several limitations to this study that must be considered when interpreting the results. They will help to orient the reflection for future studies.

First, the self-report instruments completed by the parents do not capture the perspectives of their children. Even if parents are with their child long enough to get an accurate picture of the situation, they cannot express the child's experience as accurately as the child. The parents themselves—possibly stressed or tired—might present the situation more negatively or more positively than it is. Second, the sampling method was a convenience sampling with recruitment through social networks. This type of sampling affects the level of representativeness of the study population, especially since the sample was relatively small and the participants were from high socio-economic backgrounds. Third, while the specific study of gifted children provided a clearer picture of these children, the study of moderating variables could enhance our understanding of the psychosocial adaptation of these children. Fourth, while this study documents how children in the province of

Quebec fared during confinement, the data do not allow for an assessment of how their adaptation changed from the pre-pandemic period. Thus, children with pre-pandemic difficulties might have shown an overall improvement in functioning, despite having an at-risk or clinical score on the adaptation scales. Conversely, other children might have more difficulty in a pandemic setting, but still be functioning within the average range for adaptive behaviors.

Lastly, as this study is exploratory in nature, further studies should consider certain family processes, including parental stress and mental health, as indicators of the impact of the pandemic and as factors influencing the adaptation of gifted children.

Implications and Conclusion

In conclusion, in this pandemic context in which certain difficulties seem to emerge more markedly in the twice-exceptional compared to gifted and non-identified gifted children, it seems both relevant and important to better identify them in order to put in place strategies that support and allow for better adaptive functioning. A greater awareness of the presence of difficulties could enable both parents and teachers to respond to the needs of these young people with greater consideration and empathy for the potentially stressful experiences associated with the pandemic. Duraku and Hoxha (2020) relate several strategies mentioned by parents of gifted children. Family activities, setting routines, rule adaptation and flexibility, the quality of communication between parents and children, the opportunities for family talks, and the emotional support offered by parents could be key elements in their child's sense of well-being. In the same sense, the importance of considering the emotional and affective needs of gifted youth and allowing them to express them has also been reported (AlAli, 2021). These elements have been implemented with gifted and non-identified gifted children and adolescents with consistently positive effects on youth and families (Bobo et al., 2020).

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SENG Journal
Vol. 2, No. 1, 38-56

Article

A Counselor Educator Situates Two Seminal Studies in the Cultural Values and Underrepresentation Literature 30 Years Later

Jean Peterson, Ph. D.

Abstract

Emerging themes in a qualitative study of dominant-culture teachers' beliefs about giftedness in the late 1900s reflected that behavior, verbal assertiveness, family status, a strong work ethic, and social skills mattered most. In a similar study in five culturally and linguistic diverse (CLD) communities at that time, themes differed collectively from the teachers', but also from community to community. Findings are pertinent to the underrepresentation of CLD students in gifted-education programs currently because teachers continue to be gatekeepers when asked to refer students for programs. What they and the students value matters. The research approach is also of interest. The methods used in these studies were effective for exploring teachers' invisible ad hoc rationale when nominating students for special programs, and the findings provoke thought about why underrepresentation remains so intractable. The findings are examined here, nearly 30 years after data collection, with implications for policy, philosophy, selection, and programming.

Keywords: *underrepresentation • culturally and linguistically diverse • post-positivistic • qualitative*

For several decades, with considerable momentum in the 1980s and 1990s, scholars have explored the underrepresentation of culturally and linguistically diverse (CLD) children and teens in school programs for high-ability students. An extensive report of the American Psychological Association Presidential Task Force on Racial Disparities (2012) called attention to possible contributing factors: within-culture immigrant differences; economic disparities affecting quality and access to early-childhood education; dual-language learning not continued beyond the first years of schooling; the intersection of gender and race; teacher-student interaction; and differing academic experiences of English speakers (ES) and English Language Learners (ELLs). More recently, pertinent articles in *Gifted Child Quarterly* (e.g., Henfield et al., 2017; Peters, 2021; Peters et al., 2019; and Ricciardi et al., 2020) and frequent briefs in the National Association for Gifted Children online *News Source* (e.g., Watanabe, 2022) about inequitable identification and participation indicate that concerns about underrepresentation continue. Qualitative exploration of those concerns and of affected demographic entities, letting examination of language make visible what often is invisible, can scratch beneath the surface.

Sensitizing Literature

Representative scholarship from the 1970s through the early 2000s, organized in somewhat chronological order below, suggest that scholars have explored and discussed an array of aspects of underrepresentation. Those include, but are not limited to, conceptions of giftedness (Renzulli, 1978; Sternberg & Davidson, 1986); minority status in plural communities (Ogbu, 1983); impact of teachers' emotional responses to students' abilities, success, and failure on student achievement (Weiner et al., 1982); identifying and serving ELLs (Crawford, 1995); applying the theory of multiple intelligences to identification (Baldwin, 1994); improving academic achievement by ameliorating behavior problems (Tucker, 1999); impact of socio-economic status on self-concept (Campbell-Whatley & Comer, 2000); and impact of teachers' experiences with race on curriculum development and implementation (Milner & Ford, 2005).

In the past decade, examples of additional foci are the importance of mattering (i.e., feeling valued) (Dixon & Tucker, 2018), recruitment and retention of culturally different students (Ford et al., 2020); a broader understanding of learning preferences (Samardzija & Peterson, 2015); underrepresentation of high-achieving students of color in programs (e.g., Grissom & Redding, 2016); proactive efforts toward equity during identification (Peters & Engerrand, 2020); cluster grouping (Gentry, 2021b); students' racial narratives related to ability (Shah, 2017); demographics of underrepresentation (Peters et al., 2019); small-group affective curriculum for facilitating connections among high-ability CLD youth (Jen et al., 2017); and the notion of learning *from* indigenous students (Gentry & Gray, 2021). Among relatively recent perspectives, cluster grouping (Gentry, 2021a), with frequent or continual assessment, grouping and regrouping, individualized feedback, and a high level of curriculum

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differentiation, focuses on progress and improvement, not just achievement, embracing CLD students.

Theories

The persistence of the underrepresentation of CLD students in programs for high-ability children and teens argues that examining scholarly perspectives across even more decades might help to put it at arm's length to generate new insights. For example, Turner's (1960) perspectives about contest and sponsorship mobility are of interest. In the former, high status comes in an open contest, won by effort. In the latter, agents of an established elite "sponsor" recruits and make judgments based on specific qualities. Cicourel and Kitsuse (1963) argued that U.S. selection processes reflect sponsorship mobility, with social-class membership affecting how the school system responds to students. Decision-makers differentiate on the basis of test-data interpretation, individual and family history, academic success or difficulty, personal adjustments, and clinical and common-sense conceptions.

Wilcox (1982), regarding differential socialization in the classroom, theorized that schools are transmitters, rather than reformers, of culture, through actions woven imperceptibly into everyday classroom life. She also referred to a culture of expectation, based on parents' achievements. Therefore, Bourdieu and Passeron's (1977) theory that education reproduces society is also relevant. Referring to the use of testing in identification, they argued that "outward signs of scientificity and neutrality" (p. 163), providing a cloak of fairness, may be "concealing social selection under the guise of technical selection and legitimating the reproduction of social hierarchies by transmuting them into academic hierarchies" (p. 53). Even a teacher's concerns about whether a child would feel comfortable in a program may unwittingly perpetuate disparities if "fit" includes being comfortable with students already in the program.

Biting to the Core

Regarding scholarly directions for addressing the underrepresentation of bright CLD children and teens in programs, Tannenbaum (1990) asserted, "After so many years of nibbling futilely at the edges of these issues, it is time to bite boldly into their bitter core" (p. 84). Borland (1993) noted that the sociology of classroom interaction and idiosyncratic value orientations had been ignored by scholars, as had contexts and constructs, such as the construct of giftedness. These perspectives encouraged changes in foci and research methods, such as using postpositivistic approaches instead of positivistic measurement to explore cultural factors and explain problematic assumptions and educational practices. When a qualitative research approach fits well with purpose and research question, findings can add to the knowledge base and, pertinent to Tannenbaum's assertion, breathe new life into a particular area of scholarship, such as the underrepresentation of CLD students.

Because attitudes are subjective and may be painted with a broad brush, language is a point of access to complex core issues related to cultural diversity. Exploring the language of decision-makers in school programs and the language of CLD populations as they consider "giftedness" is one approach to gaining more than superficial understanding of how program creators and consumers think. One advantage of inductive, open-ended qualitative approaches, in contrast to quantitative approaches focused on confirming or challenging existing theories (see Corbin & Strauss, 2007), is that they move inquiry into unexplored territory, examining "what people do, know, think, and feel...[to help] develop, improve programs, and contribute to social change" (Patton, 2015, p. 170). Such exploratory studies can generate new directions in scholarship. Postpositivistic approaches are sensitive to context (p. 362), acknowledging "multiple realities constructed by groups of people and the implications of those constructions for their lives and interactions with others" (p. 121).

However, postpositivistic studies of high-ability children and teens continue to be uncommon, with some notable exceptions (e.g., Gibson & Sauder, 2021; Goings & Ford, 2018; Kettler et al., 2017; Matthews et al., 2014; Michael-Chadwell, 2010; Ritchotte & Graefe, 2017; and Swanson, 2016). Ethnicity, demographics, life experiences, and associated societal issues garner little attention in studies of gifted-education programming (Henfield et al., 2017). In teacher preparation, the same gaps occur, a possible effect of which was evident in a still-rare postpositivistic exploration of subtle teacher bias (Spindler & Spindler, 1990) using extensive video-recorded classroom observation. A respected teacher volunteer was shocked by his pattern of selective interaction, which was "as consistently in the direction of positive appraisals for upper status and mainstream children . . . [as he was] negative in his appraisal of relationships for nonmainstream [children]" (p. 65):

> [He] did not interact in the same way or with the same intensity with children who did not match his own cultural experience and background. This process of selecting out certain children and certain behaviors for approval and reinforcement, and ignoring others, is potentially as damaging as the exercise of overt prejudice and hostility towards certain children. (p. 68)

The two studies to be highlighted here are described as seminal because findings in both provided impetus for further exploration and development in scholarship. The studies were creative and original, two other aspects of *seminal* scholarship.

Purpose

The multiple purposes of this article are related to raising awareness of the impact of cultural values on the selection of high-ability students for programs. Details about research methods in two studies conducted 30 years ago offer guidance for exploring the connection.

Purpose 1: Connect Present with Past

The main purpose is to connect current concerns and understandings about underrepresentation with findings in a pair of seminal qualitative studies from the late 1990s (Peterson & Margolin, 1997; Peterson, 1999). Those studies followed admonitions of Borland (1993) and Tannenbaum (1990) in using a postpositivistic approach and focusing on sociological contexts, interactions, and assumptions.

Findings illuminated aspects of the referral process in which the cultural values of student nominees and teacher nominators might affect the identification of bright students missed during screening of standardized test scores—when those scores are involved in identifying students with high ability.

Purpose 2: Raise Awareness of Cultural Values

A second purpose is to use the findings to raise awareness of cultural values (i.e., what a culture values, what is considered important, not how it is stereotyped and categorized), which may affect classroom interaction, teacher-student relationships, selection processes, and program philosophy and policies. Educators and scholars may discuss these affected areas with little or no attention to cultural *values*—for example, dominant-culture and minority-culture values; the effect of those values on how students experience school and learning; and even the values, protocols, and norms of the "teacher culture" when they refer students for a special program.

Atkinson (2004) argued that culture "consists of values and behaviors that are learned and transmitted within an identifiable community" (p. 10). Lefley's (2002) definition of *culture* included a shared language (p. 4). Here, *dominant* in *dominant culture* refers to institutional and political power and influence, regardless of actual demoågraphics. The first study made visible what is typically invisible in the subjective value-driven judgments during selection processes.

Purpose 3: Raise Awareness of the Impact of Values on Identification

The third purpose is to raise awareness of how cultural values might affect identification of high-ability students. Relying on teacher referrals during the first or second stage of the identification process has been associated with underidentifying bright children of color (McBee, et al., 2020). Cultural values (i.e., not as categorical descriptors of cultures) are typically not part of the scholarly literature and of official statements about gifted education (e.g., https://www.nagc.org/about-nagc/nagc-position-statements-framing-papers).

Purpose 4: Draw Attention to the Research Approach

The final purpose is to draw attention to the research approach used. The strategies for recruitment for the first study included assuring school administrators that no teacher would miss a class, that the interview question would be open-ended (i.e., with no implicit theory-based direction), that the teachers and administrators would be invited to a presentation of findings, and that administrators would receive a summary report. As a result, probably, teachers engaged in lively interaction and administrators provided thorough logistical support. Participants in both studies spoke confidently. In the second study, many CLD participants expressed appreciation for being asked for their opinions.

A Study of Teachers' Nominating Language

Research Question

The research question that guided the first study (Peterson & Margolin, 1997) was not *whether* and *how much* CLD students were underrepresented in programs for high-ability students. Answers to those questions had already been well documented (e.g., *National Excellence*, 1993). Instead, the question was *how* underrepresentation occurs invisibly and unquestioned in discussions about eligibility. Qualitative research methods were appropriate because the focus was on the teacher's thinking as they orally made sense of "giftedness."

Research Approach

Generating *natural, everyday* talk, not limited to superficial, perfunctory, intentionally politically correct comments, was the goal when studying how teachers conceptualized "giftedness" during the referral process. Data-gathering strategies appropriate for qualitative, naturalistic research (e.g., discovery-oriented; minimal manipulation; open-ended; not focused on verification and confirmation; Patton, 2015) were as follows: 1) Teachers would respond to a question a program coordinator might ask them if attempting to locate bright students whose data had not been forwarded for further evaluation; 2) Teachers would be asked only one question, open-ended, with an added request for justification; 3) Only minimal interaction between

researcher and interviewees would occur, but the latter might interact spontaneously with colleagues if a small group of participants gathered. Language was the focus. Assumedly, the more multi-layered and complex, the richer the data.

Research method matters when studying the underrepresentation of CLD students in programs. Perhaps methods in recent decades are at least somewhat responsible for the relative lack of movement forward in understanding and addressing underrepresentation—that is, not bold enough to access and explore uncomfortable core issues (see Tannenbaum, 1990) and not able to generate complex data. Therefore, here, direct quotations provoke thought about genuinely exploratory qualitative approaches and the importance of the research question. When exploring CLD underrepresentation in programs, researchers must have access to decision-makers' thinking through language—ideally, in real time. Even one well considered, open-ended interview question may generate extensive data about thinking processes (Peterson, 2019).

Context

A workshop participant reported that district leaders had tried, unsuccessfully, to match percentages of program participants with local demographics. Approximately 16% of the school population was culturally and linguistically diverse, with Latinx the largest CLD group. Many had come initially to harvest vegetables, but stayed, currently described respectfully as "settled out"—that is, no longer migrating.

Various equity initiatives had changed some teacher practices, but not the CLD percentages of gifted-program participants. For example, to address cultural disparities in behavioral referrals, principals had advised teachers not to mention culture or economic status on disciplinary reports. To address underrepresentation of CLD students in the National Honor Society, extra-curricular activities could be counted as community service. However, parents' late work shifts, dependence on their children for childcare, and limited public transportation precluded after-school activities for some students, and, for others, volunteering in the community. The leaders wondered if other strategies might better address underrepresentation.

Gathering Data

The district gifted-education coordinator facilitated access to teachers in two middle schools, one downtown and the other suburban, for interviews during their allotted class-preparation time. Over the next three weeks, 55 teachers, all White / European American, volunteered to discuss the term *gifted*. At that time, no word other than *gifted* was used to refer to high-ability students in community schools, and *gifted program* referred to curricula for those students. These terms therefore appear in this article when referring to the two studies of interest. The interview information and prompt were as follows:

> Which students would you nominate for a gifted program—regardless of whether they are already eligible and/or are involved in such a program? I also invite you to explain your reasons for each nomination. I will record the interview for a research study and will record the nominees' names in my notes so that, after the interviews are completed, your director can organize two weekly groups of the most-nominated students to discuss topics related to growing up. An adult connected with the gifted program will lead those groups.

The teachers, regardless of coming alone, meeting as a grade-level team, or joining teacher peers as a small group, usually stayed for the entire class period, allowing them time to elaborate.

Even when a grade-level team participated together, with everyone on the team acquainted with the students being nominated, the teachers almost never challenged someone else's nomination or rationale. In addition, no one asked, "By whose definition?" Yet during later analysis, their language could be organized into 42 differing "definitions" of *giftedness*, among them a strong work ethic, motivation to achieve, eagerness to learn, goal orientation, "standing out," a positive relationship with teachers, a strong knowledge base, eager display of knowledge and talents, high academic performance, and winning competitive awards. Some teachers gave only one of these as justification, but most gave multiple justifications. In general, the teachers appeared to have constructed a personal understanding of giftedness and referred students based on their subjective view of the construct (see Hammerschmidt, 2016). Their deferential communication with each other was noteworthy, perhaps reflecting their shared experiences as colleagues, a respect for the autonomy inherent in separated classrooms, and the behavior norms of their middle-school teacher culture.

Themes

The central phenomenon was that dominant-culture classroom teachers confidently nominated students as if the giftedness construct were universally understood and embraced. Their justifications reflected mainstream, dominant-culture values, according to anthropologists interested in the role of schools in the transmission of culture: individual, conspicuous, competitive achievement (Spindler & Spindler, 1990).

Frequency counts of words or phrases were not useful for determining themes (see Peterson, 2019) in the long, complex narrative responses to an open-ended question not based on pre-existing theory. Participants

sometimes mentioned a descriptor only once and for only one nominee, while others repeated it several times for one. Number of nominations per teacher also varied greatly. Noteworthy is that intelligence was rarely mentioned.

Here we will view these themes as values in the teacher culture (i.e., White, middle-income), as revealed in their language, with potential impact on the identification process. Some teachers distinguished between acceptable and immoderate levels of these behaviors: "thorough" versus "overconscientious"; "social" versus "shows off"; "sense of humor" versus "makes jokes"; "hard worker" versus "just works hard"; "shows talent" versus "center of attention"; "high self-esteem" versus "arrogant" or "puts herself down"; "quick" versus "hurries through assignments." These fine-line boundaries might be difficult for students and parents to recognize regardless of culture, immigrant status, and acculturation. They also represent why word frequency was not adequate for determining themes.

Table 1 summarizes themes in the teachers' language and representative comments. Below, additional comments give context to the language in the table.

Behavior. Behavior was mentioned repeatedly and sometimes vehemently to justify either inclusion or exclusion. Based on tone and repetition per nominee, behavior was the most salient characteristic in the nomination process. Teachers sometimes added judgments about personality (e.g., "kind of a whiner," "abrasive"). Quiet was a frequent descriptor, mostly negative. Some teachers were indignant about students who "won't offer anything."

Verbal Skills and Assertiveness. Verbal strengths and skills were mentioned almost as often as behavior,

Table 1: Themes in Teacher Nominating Language

Theme	Representative Quotations
Behavior	"I don't think she'd fit in a small group—kind of bossy."
	"Argues every side of everything . . . interrupts all the time."
	"Probably gifted, but he's a first-class jerk."
	"Steals time from the other kids."
	"Not motivated. I wouldn't put her into anything."
	"Just a little bit too quiet"; "Hard to tell what he can do."
	"Mouthy and belligerent'
	"Obnoxious and overbearing"
	"He's one of my favorite people."
	"He's a bright spot for me . . . one of my favorite people."
Verbal Ability & Assertiveness	"Has a great vocabulary and is able to use it."
	"Has a point of view"; "brings things up."
	"Uses big words."
	"A voracious reader, but doesn't do a lot of discussion"
	"She corrects me."
Family Status	"His parents are teachers."
	"Phenomenal parents"
	"A very bright family"
	"Insightful, but his background does interfere."
	"Dad is in upper management somewhere."
	"Both are well educated."
	"[Parents are] really involved in committee work."
Work Ethic	"He's gifted in that he's very conscientious."
	"They try hard."
	"Really puts in the time."
Social Skills	"Gifted—they'd have to be able to work with others—like in real life."
	"Awful social skills"
	"No leadership"

but described less dramatically and with less varied language. Regarding how assertiveness plays a role when identifying ability, a teacher said, "The kids I'm recommending identified themselves. Their parents have done that, too."

Family Status. In the downtown school, almost no references to family status occurred. In the suburban school, they were common.

Work Ethic. With regard to work ethic, teachers' ambivalence was apparent in "has to work for her *A*s" and "maybe she's just a kid who works hard." One teacher implied a limit: "wants to achieve so badly it's almost a detriment."

Social Skills. The social skills theme emerged from teachers' comments about sociability: "[Gifted kids] achieve in their classes, but also get along and are not a problem.

Themes in the teachers' language offer multilayered evidence that they were often nominating students who affirmed them in their work as educators and contributed positively to the learning environment: eagerness to learn, conscientious effort, good behavior, social skills, classroom participation, verbal assertiveness, and a strong work ethic. These emergent themes arguably reflect values within the White middle-class teacher culture, with potential subjective impact on identification.

Pertinent to three theories mentioned at the outset of this article, the teachers' rationale for recommending students for special programming supports Bourdieu and Passeron's (1977) theory that education does not transform society but reproduces it. The teachers nominated children who were similar to them in values. The teachers' rationale also supports Cicourel and Kitsuse's (1963) theory that the United States has, not a contest mobility, but a sponsorship mobility, with social class affecting how schools respond to students. The family-status theme supports Wilcox's (1982) theory of the culture of expectations, based on parents' achievements.

The Second Study: Five Culturally and Linguistically Diverse (CLD) Communities

Purpose

The purpose of the second study was to explore various CLD cultural groups' perspectives about "giftedness" and examine their language themes separately, collectively, and, in general terms, vis á vis the teachers' language. The 100 participants were teachers, administrators, social workers, recent immigrants, parents, grandparents, and older-adolescent students in those cultural groups. Clients in family services were invited to participate because knowledge, awareness, and skills are needed for effective educator interaction with low-income families, just as with persons who represent racial, ethnic, and linguistic diversity (see Sue et al., 1992). After the director delivered the invitation, she was not involved.

Research Question

The research question was the same as for the first study: How does underrepresentation occur, invisibly and unquestioned? In this study, however, participants would be from the populations underrepresented in programs for highly able students. Of interest was how they constructed giftedness and how their perspectives might affect teacher nominations.

Research Approach

The Context

This second study (Peterson, 1999) occurred in five CLD communities in the midwestern state in which the study of teachers' language was conducted: Latinx, recent-immigrant Southeast Asian, Black, Native American, and low-income White. Recent-immigrant Southeast Asians were invited to participate because the effects of acculturation would assumedly be less than after many years of residency.

Recruitment

Participants in these communities, recruited with the help of administrators, counselors, or teachers or through snowball sampling, were invited to talk about the "most gifted" persons, of any age, they had known personally. They generally responded at length. School or program administrators created a schedule and a private area for the interviews.

Themes

The central phenomenon of this second study was that the CLD cultures viewed "giftedness" idiosyncratically. During qualitative analysis, emergent themes in the language of participants differed from community to community and, collectively, from the teachers' themes. These emergent themes reflected what they believed was important, what mattered, what guided their behaviors. Table 2 displays details about cultural group; size and pertinent diversity of community; number of participants; interview location, type, and duration; and major themes.

Table 3 contains examples of comments contributing to the main themes. The comments provide cultural context and demonstrate that responses were usually specific, not vague.

Themes Emerging in Two or More CLD Communities

Themes emerging in more than one of the culturally diverse communities in the second highlighted study might help to explain the underrepresentation of CLD

Table 2: Community size, Interview Types, Locations and Duration, and Themes

Cultural Group Community Size; Interviewees	Interview Location	Immersion Duration	Interview Type, Duration	Ranked Themes: What is Viewed as "Gifted"
Latinx Pop. 23,000 13% Latinx N = 12 (adults; 2 teens)	Community Cultural Center	3 weeks in the community	Individual interviews; 1 hour each	Art—as expression, not as performance; Humility; Service, Helping extended family
Black Pop. 300,000 2 Magnet Schools 54% & 38% Black N = 22 (adults)	2 schools, K-2, 3-4; Parent center; conference room; principal's office	6 weeks in the community	30-120 minutes per individual or pair	Selfless contribution to the neighborhood; Handiwork; Concern for family; Wisdom
Native American Pop. 650 100% Native N = 15 (adults)	Tribal center (tribal leaders); K-8 school (native language teachers)	2 days observing and interviewing	2 individuals, 2 groups: Tribal leaders, Native language teachers	Fluent in native language; Satisfaction in both cultures; Group/team emphasis, not individual; Contributes to the tribe; Talent: music, art, dance; Knowledge of culture
Immigrant Asian (in US < 5 yrs) in White town Pop. 2900 N = 12 (adults)	Church involved with resettlement	1 extended meeting	3 hours; Adults, with teen translator available	Education; Adaptability; Asceticism; Hard work; Focus on children; Attention to tradition; Respect for elderly; Respect for the past
Low-income White Pop. 6000 43% low-income; 18% poverty N = 39 (adults, teens)	Dept of Human Services (DHS); High school home economics classes	2 one-day visits to DHS and 1 day in high school	2 two-hour group interviews, —DHS; teens wrote responses in a class	Helping others; Child rearing; Handiwork; Manual dexterity; Artistic talent; Ability to overcome adversity; Social skills; Nonbook knowledge

students in programs for high-ability children and teens. Perhaps the reflected values were once common across all cultures, viewed positively and helping individuals and cultures to survive. Most of those values now contrast those of the dominant U.S. culture, according to findings in the study of teachers (i.e., individual, competitive, conspicuous achievement, Spindler & Spindler, 1990), potentially affecting educators' gatekeeping for special programs. The CLD communities' values are probably thought-provoking for any population, including White, middle-class teachers. The following were themes in the language of at least 2 CLD communities about giftedness:

- Helping others, listening, service to the community
- Manual dexterity, artistic ability
- Non-bookish learning, wisdom
- Concern for family, children, elderly
- Social ability, leadership
- Overcoming adversity
- Not "showing what you know"

Based on the Themes and Relevant Literature, Who Might be Missed?

The five main themes in the teacher nomination language suggest that gatekeepers ignore bright students who are not consistently high achievers or who are quiet during classroom discussion. According to the themes in the second study, some highly capable students are not inclined to "demonstrate giftedness" enough to be referred for further evaluation. The following literature underscores that little-discussed, nuanced cultural differences can interfere with bright students' being identified as having high ability.

• An immigrant's low English proficiency and lack of familiarity in the host culture might contribute to shyness in the classroom, precluding verbal assertiveness (Castellano, 2003), which the teachers believed to be essential to giftedness.

Table 3: Themes in the Language of Residents of Five Culturally Diverse Communities

Theme	Representative Language
Art as expression, not performance	(Latinx) "She expresses herself in drawing. If she's sad, it gets her to feel better."
Humility	(Latinx) "You shouldn't put yourself above anyone else . . . If we succeed, good, but don't get a big head."
Selfless contribution	(Black) "Kids in the neighborhood . . . [She] will do their hair and just make them feel good."
	(Black) "He helps the school get their money for tutoring the children."
	(Low-income White) "He was the one people turned to."
Handiwork, manual dexterity	(Black) "Can . . . build a deck and doesn't need instructions . . . gifted with his hands."
	(Low-income White) "Calm hands, like a surgeon"; "Makes beautiful things"
Concern for family	(Black) "Stepped in for the mother. That's an aunt he'll always remember."
	(Black) "the tutelage he gave his family"
Child-rearing, teaching	(Low-income White) "Tells them the right thing."
Wisdom, non-bookish knowledge	(Black) "his desire to educate himself . . . about so many subjects and without a great deal of formal education"
Adaptation	(Immigrant Southeast Asian) "When he came, he had just his hands . . . he saved some money and rented a room and opened with two to three tables for a restaurant. He cooking everything good. Four or five years so successful he bought it."
Asceticism	(Immigrant Asian). "He ate only one time a day. He cut trees for the wood and he sells it and kills squirrels and snakes and sold it at the market . . . eats only what he gets and only buys rice . . . went to the temple to become a monk. I admire it because he needs so little."
(Native) No nominations, but they responded to "What might you notice?" No comments about advanced academics or individual achievement.	(Native American) "We're taught not to put ourselves above others." "The culture does not value bragging."
	(Native American) "Obviously there are people who have come to the forefront, doing good for people, providing leadership. They do it quietly"
	(Native American) "The idea of giftedness is . . . seen as assessment, something not promoted in the culture."
	(Native American) "can blend the cultures, can find satisfaction in both, without becoming assimilated"
	(Native American) "take an active role in monitoring the changes in the tribe so the culture stays intact."

• Low English proficiency can limit immigrants' and other CLD children's ability to express sophisticated concepts, leading to low appraisals of their intelligence (Maker & Schiever, 1989). To develop that skill level requires 4-6 years (Ritchotte et al., 2020).

• Ironically, monolingual teachers might judge the rudimentary English skills of immigrant children negatively, missing the remarkable abilities inherent in bi- and multilingualism and coping in a new society (Bernal, 1989).

• U.S. and international students from collectivist cultures, in which interdependence and shared resources are needed for survival, might expect to work collaboratively with peers in the classroom and have readily available adult help. Teachers from individualistic cultures who are not sensitive to those expectations might then miss opportunities to offer support, including when recommending bright students for opportunities. Viewing independence as reflecting giftedness might seem strange to low-income families, who tend to be collectivist, even when highly acculturated (Liu & Waller, 2018).

• Acculturation, the process of adapting and changing as a result of living in a new culture (Berry, 2005), likely affects classroom interaction. Torres et al. (2012) found that Anglo-oriented behavior was associated with integration and lower levels of acculturative stress. Yet feeling pressure to disassociate from perceived cultural, linguistic, and personal disadvantages in order to demonstrate giftedness and "reach potential" might leave CLD students feeling socially, academically and culturally adrift.

• In the Native American settlement, after the White and Native teachers had heard a summary of findings, a long-tenure White teacher privately explained her theory about why veteran teachers did not nominate students and newer teachers did. She believed the teachers with several years at the BIE school, most of them from large families, low-income status, and small towns, had become acculturated into the Native culture, which does not encourage "standing out." The newer teachers, urban in background and from small families, behaved according to dominant-culture values. If they stayed, she believed they would become attuned to Native values, unlikely to nominate. Her informal theory pertains to the study of teachers' language because acculturation likely affects being viewed as "gifted," as well as fitting programs built around dominant-culture values. After data-gathering in the Latinx community, the program leader noted that all cultural-minority nominees were well assimilated into the dominant White culture.

• Cultural styles of conversation can affect how educators assess the ability of CLD students (Goodwin, 1990). For example, teachers might view Black English vernacular to as inferior to standard English instead of a recognized form of English (Ford, 2011).

• Students with difficult home contexts might be unable to focus, negatively affecting academic performance. They may have no space at home for homework and may not be comfortable or self-assured enough to interact in classroom discussions. Behavior at school can also reflect hunger; fatigue when too many people live in a small house with too few beds; anxiety and depression because of ostracism at home or at school; and self-medication with alcohol or other drugs (see Peterson, 1997).

• Unpredictability at home (Liu & Waller, 2018), including seeing friends and family harmed, can lead to impulsivity, and being disinclined to delay gratification to focus on academic work (Burke et al., 2010).

In summary, bright students' life circumstances can affect whether teachers advocate for them. Circumstances and deference to authority might also inhibit CLD parents from requesting evaluation of their children for possible placement (Scott et al., 1992). Immigrant families often have high educational aspirations but may not yet be comfortable in school or community (Liu & Waller, 2018). Latinx adults' valuing social competence when defining intelligence is an example of a CLD community value contrasting dominant-culture teachers' emphasis on cognitive intelligence (Barbarin et al., 2010). When teachers are aware of values, they can respectfully, non-patronizingly, and unobtrusively validate these values in CLD students.

Selected Perspectives Related to Emergent Themes in the Two Studies

The two studies of interest here were initially published in a format typical of postpositivistic studies, with sensitizing literature at the outset and additional literature that became pertinent during data analysis presented later. It is appropriate here to consider the latter when examining the findings in both studies nearly 30 years after data collection. The study of teacher language exposed values-based biases that might close the gate to participation for CLD students and also affect curriculum, basic policy, and school-parent and teacher-student relationships. While there has been progress, educational gaps still exist, with personal and social costs (Worrell, 2014; Vasquez, 2012). The following section connects the 1997 and 1999 findings to current pedagogical concepts and theories, which acknowledge that the underrepresentation of CLD students in programs for high-ability students persists.

Multicultural Relationships in Schools

The Teacher-Student Relationship

When the teachers in the first of the two highlighted studies nominated students, their language exposed both positive and negative biases toward bright students. Behavior was the main theme. Language about behavior and personality was rich with subjective negative judgment. Sosniak and Gabelko (2008) noted that teacher efficacy, especially the ability to engage low-income students in learning, is crucial for responding to students' concerns.

Differential Selection. Hammond (2014) noted that school can be a hostile environment for students of color, with an entrenched "pedagogy of compliance" even in schools with considerable cultural diversity. Disciplinary disparity (Skiba & Rausch, 2006) in response to noncompliant behavior reflects teacher biases about behavior. Students who act out in classrooms tend to perceive that teachers are uncaring and have low achievement expectations (Gregory & Weinstein, 2008). According to the differential selection hypothesis (Gregory & Thompson, 2010; Piquero, 2008), teachers differentially punish ethnic and racial minority youth for infractions based on subjective (e.g., challenges to teachers' authority), rather than objective (e.g., physical fights, possessing a weapon) (Gregory & Weinstein) criteria because of racial bias, cultural mismatch, and behavioral stereotypes (Gregory & Thompson). When dealing with problematic behavior, administrators might help teachers view it as reflecting the student-teacher relationship (Pane, 2010) and approach it accordingly, with a school counselor as mediator.

Cultural Mismatch. The findings in the two studies of cultural values argue that underrepresentation of CLD students in programs for high-ability children and teens is due to mismatched cultural values. The cultural mismatch hypothesis (Gregory & Weinstein, 2008) suggests that behavior considered "normal" by students may be perceived as defiant by teachers. In the first study, behaviors teachers deemed essential for identification as "gifted" (e.g., verbal assertiveness, demonstrations of giftedness) did not fit some CLD cultures' valuing of humility and *not* displaying knowledge and talents. The contrasting CLD and teacher themes can be incorporated into professional development, building bridges of communication, and acknowledging and accessing students' funds of knowledge.

Changes in research foci and classroom teaching since data were gathered for the two seminal studies reflect movement away from unidirectional assimilation into White, middle-class cultural values and toward validating and overtly supporting the values of other cultural groups. The following perspectives reflect the wisdom of making school systems, curricula, policies, and practices relevant and responsive enough to CLD cultures to nurture and sustain them.

Funds of Knowledge

In the study in which teachers' referral language reflected their cultural values (Peterson & Margolin, 1997), even their rationale and brief discussions about nominated students generally did not note strengths beyond those associated with academic performance. Home context was usually ignored if it was not obviously connected to high performance, such as enrichment through travel and overt, supportive parental involvement at school. The teachers identified high ability mostly based on classroom performance.

The "funds of knowledge" concept is associated with a project involving households in the U.S.-Mexico border region (Moll et al., 1992). The phrase refers to the complex understandings children from working-class families bring to school—for example, of strenuous physical labor, economic uncertainty, and social networking for resources necessary for survival. Teachers who recognize clear contrasts between classroom and households can employ qualitative methods as field researchers to study households to gain a deeper, more holistic, more sophisticated understanding of students. These methods can also help them gain access to funds of knowledge that can help to make classroom experiences more relevant and counter the notion that working-class families are "deficient." Subsequently the teachers can contribute to discussions with colleagues when identification and curricular decisions are the focus, helping them think beyond broad categories and stereotypes of diverse cultures and affirming Mexican Americans' strong valuing of respect of others, pride, family, education, and cultural identity, for example.

Teachers can collaborate with colleagues on this field research (Darling-Hammond, 2006), taking advantage of their access to households because of parents' concerns about their children's education. Teachers can use questionnaires to gain direction for classroom activities, recruit volunteers to assist in the classroom, and become more self-aware of their own and the families' fears, assumptions, uncertainty, and misunderstandings. With each teacher interviewing and observing a few families at the outset of each school year, a large number of families can become more connected and engaged through this bidirectional learning. Even one brief skills-oriented professional-development event, led by a school counselor, can help teachers form open-ended questions, respect privacy, and probe gently (see Peterson, 2020). Less formal and more bidirectional learning and support through after-school sessions can remind teachers that the classroom is only one space in the complex life of a student.

Increasing teachers' awareness of students' home and community through direct engagement, as well as raising their awareness of talents and interests not evident at school, might lead to more fair assessment of students' abilities. Greater awareness of students' funds of knowledge and understandings can also generate teachers' and students' interest in economic, educational, recreational and health systems, domestic and world geography, history, forms of government, national leaders, international relationships, and impact of political decisions—all of these being possible options for curriculum units and projects (see Moll et al., 1992).

Evolving Pedagogy

Culturally responsive pedagogy. Hammond (2014) referred to learning partnerships that can become relational communities of learners—that is, with *culturally responsive pedagogy*. Teachers can increase their dexterity and adaptability as they give feedback, increase their awareness of students' contexts, stay alert and responsive to students' social and emotional challenges, help students build cognitive strengths through productive struggle, and access the funds of knowledge and experience students bring to the conversations. Ford and Scott (2016) described culturally responsive education as valuing cultural differences, using a multicultural curriculum that incorporates culturally diverse ways of learning, and using culturally and linguistically relevant testing and evaluation. Ritchotte et al. (2020) described such culturally responsive pedagogy in practical terms, helping teachers see, understand, teach, challenge, and advocate for underserved learners with high ability. Strategies involving collaboration are fundamental to the emphasis on engagement.

The teachers described earlier in this article did not communicate a posture of learning *from* their students (see Ladson-Billings, 2014), and creating differentiated curricula to address needs. What they spoke about when arguing for further evaluation of eligibility was often knowledge based—measured through standardized tests and classroom academic performance. Overt reference to cultural beliefs and behaviors was essentially absent. During the nominations, the teachers did not refer to qualities reflected in the language themes of the CLD communities.

Culturally relevant pedagogy. Another example of evolving pedagogy and the importance of theory in increasing the rigor and power of educational research is culturally relevant pedagogy (Ladson-Billings, 2014). This pedagogy reflects a consciousness that students of color have been shortchanged and espouses approaches that can engage the least-advantaged students through art, poetry, and dance, for example, to establish a foundation for current and future learning relationships. This evolving pedagogy embraces the notion that both scholarship and culture are fluid, not static. Literature about what makes success possible for advantaged middle-class students typically does not discuss inherent social and economic factors that contributed. Nor are teachers likely to encourage critical consideration of policies and practices reflecting power structures within the dominant culture, which potentially affect dropout rates, suspension, expulsion, academic failure, and disengagement across school populations.

In the study of CLD communities (Peterson, 1999), no Native or veteran-teacher interviewee in the Native American settlement recommended a student for a program for bright students. The Native culture does not value "putting yourself above others." However, when asked a related question, a tribal leader remarked that someone held in high respect would need to be able to speak the native language and be comfortable in both cultures. This leader testified before the U.S. Senate Committee on Indian Affairs (Lasley, 2011) about the importance of rooting education in cultural values and the traditional language because the latter is the link to spirituality, religion, and the Earth—the "language our souls know." In his testimony, he poignantly underscored the impact of the loss of culture, including being forced to abandon their language during the boarding school era. He emphasized how thoroughly the culture permeates everyday life—food, clothing, homemaking, kinship system, and responsibility to family. However, he noted that the percentage of settlement residents fluent in the tribal language was dwindling, limited more and more to older adults. The increasing challenge of locating speakers of the language to be "culture teachers" in the school was due to the shrinking pool of fluent speakers. His detailed written and oral testimony is a reminder that *culturally sustaining pedagogy* has increasing relevance—not just for the Native American settlement, but also for immigrant populations, when the familiar culture is at risk of being lost to them.

Culturally sustaining pedagogy. Instead of viewing differences in cultural values in terms of right and wrong, appropriate and inappropriate, values other than those of the dominant culture can be framed as strengths to appreciate, respect, and utilize in good-fit programming. Values are inherent in a culture, revealed through language with qualitative research methods. Of the culture-oriented pedagogies discussed above, culturally sustaining pedagogy is especially relevant to the two studies of cultural values for which data were gathered nearly three decades ago (i.e., 1994). With this pedagogy, the focus is not on dominant-culture achievement and measurement mindsets—that is, a process of "unidirectional assimilation into whiteness" (Paris & Alim, 2017, p. 3) and nominating students for programs for high-ability students accordingly. Instead, considering the oft-referenced deficit-thinking phenomenon, the emphasis is on protecting and maintaining CLD communities' linguistic, literate, and cultural practices as strengths, resources and assets, not on overcoming deficiencies, with the posture of owing "no explanations to White people about the value of our children's culture, language, and learning potential" (p. 3)

English language learners. Some of the challenges of maintaining connection to the heritage culture, if not actually preserving it, are familiar to dual-language children and their families. The concern of the Native community was preserving, reclaiming, revitalizing and restoring language to ensure the tribe's identity and survival. Inferred was that language is the key element, now in danger of disappearing. In the Senate testimony were requests for government assistance in preserving it.

Monolingual educators might not understand that thought processes cannot be fully expressed in a language other than the heritage language because "language meanings and implications cannot be simply translated. …When translations occur, critical knowledge and meaning become lost or lessened. …These interruptions in the continuum of language, culture, spirituality, religion, and understandings cause disruptions in social wellbeing" (Lasley, 2011, page unavailable). Educators who understand these translation concerns will be alert to them in dual-language learners, recognizing students' frustration and sadness over not being able to communicate meaning precisely—if indeed they attempt to do that. According to dual-language expert Espinosa (2014), early schooling and curricula should be intentionally bicultural and bilingual, with bilingual charts, schedules, directions, labels, cognate charts, word walls, language scaffolding, listening centers, songs, photos, manipulatives, anchor texts, partnerships

with parents, bilingual adult volunteers, and a small-group format for practicing dialogue—always honoring the home language and not implying that it deserves less respect than English. Teachers can modify instruction based on what they observe in language development. They can use portfolios to assess student progress and use multiple assessors in multiple contexts. Authentic assessment can happen during ongoing classroom activities. Espinosa emphasized that the goal for all children is to be bilingual, and that knowing more than one language is a gift, not a detriment. Being immersed in two or more languages does not confuse a child.

Early childhood education (ECE) gives children from low-income families and ELLs a chance for equal footing with those from middle-and upper socio-economic levels in kindergarten. Children who receive instruction in their native language have higher rates of academic achievement (Burchinal & Cryer, 2003), a key factor in being nominated for further evaluation for program eligibility. However, ECE is often not available to children with economic disadvantages. To shrink educational disparities, the heritage language is especially important during the early school years. Children are attempting to master the curriculum while simultaneously gaining competence in the language of instruction (Goldenberg, 2008).

Applying CLD Values to Teaching and Learning

Cooperative, Collaborative, and Communal Learning. Culturally relevant strategies for making learning meaningful and comfortable are part of the literature about underrepresentation. Reflecting the recurring CLD communities' themes of non-bookish learning and helping others in the two highlighted studies, meta-analytic research has shown that collaborative learning affects achievement outcomes more positively for Black and Latino than for White students (Rohrbeck, et al., 2003). With group-oriented communalism (Hurley, et al., 2009), Black students do better than their White counterparts and less well when interpersonal competition is emphasized. In general, cooperative learning increases academic achievement (Slavin, 2011).

A cross-cultural career component. A classroom unit or weekly age-appropriate career exploration at all K-12 grade levels, reflecting cooperative, collaborative, and communal learning not focused on a particular domain, can result in meaningful cross-cultural interaction. It can vary in duration, raise awareness of future options, guide self-reflection, and promote identity development (Peterson, 2020). Even young bright children with economic advantages can worry precociously about not knowing "how to do a job," and "how to go to college." Invested adults may erroneously trust that someone else is providing career guidance—or that it is not essential for bright students. Unfortunately, such thinking can leave bright children across all socioeconomic levels and cultural backgrounds without career guidance (Hébert & Kelly, 2006).

For students who lack models for higher education and whose access to summer and other enrichment programs is limited by finances (see Aud et al., 2010; Sosniak & Gabelko, 2008), as well as for those with economic advantages and readily available models, a program director might organize small-group field trips, using a school van. Local engineering firms, design studios, research laboratories, or manufacturing firms are possible destinations. Onsite interviews or panel discussions might be possible. Inviting entrepreneurs to speak to interested students at school about personal fit in careers can prod bright students to consider what contributes to life satisfaction. At school, guest panels of local adults who successfully changed careers can lessen the anxiety of bright students who mistakenly believe career direction must be firm even before middle school and never change. Students may be interested in several careers, are probably unfamiliar with most career options, and may worry that a decision about university major will leave a strong interest behind forever (Peterson & Peters, 2021).

A curriculum focused on social, emotional, and career development can generate cross-cultural connections, expressive-language skills, and social information (Peterson, 2020). Small-group discussion about strengths and limitations, influencers, and aspirations can foster career development during the school years (Peterson et al., 2009).

However, bright students may miss out on career guidance because advanced academic classes typically do not discuss the fit of personality, personal values, and interests (i.e., not just test scores and academic performance) in a career. The program coordinator and a school counselor, whose accredited training reflects national career-development standards, might collaboratively organize a career curriculum. They can proctor and discuss interest inventories and guide Internet searches of careers, employment trends, and educational requirements. A one-time individual career-shadowing experience is an additional component that can immerse both ELLs and English speakers in the practical language of career planning and development, countering the relative dearth of media portrayals of engineering and other STEM careers, for example.

Making the dominant culture strange. In the first study, nominations reflecting dominant culture values were not challenged. One strategy to address that status quo (e.g., asking "What in the U.S. White culture might seem strange to persons in other U.S. cultures?") can be useful during professional development events, helping teachers hold the dominant culture at arm's length, think *non*hierarchically about cultural values, and move away from thinking that U.S. dominant-culture values

should be the standard to which other cultures' values are compared. Bright adolescents can respond to that same question. In the study of CLD communities, the following sample responses to the "strangeness" question are instructive about cultural values and differences.

- Latinx adults were puzzled about what "education" includes (e.g., extra-curricular activities). A parent said, "We need to educate the parents to know that it is important for their children to be involved at school and how they should behave so that they'll be recognized."
- Native Americans mentioned funerals: "It seemed very cold to me, the way they treat the deceased."
- A tribal leader said, "They only know the White view. They have never had to think of another view . . . to sort that out. They'll start to get conflicting messages. Whites don't like that." Another settlement resident said, "[They aren't] interested in learning about us."
- Two in the recent-immigrant Asian group had noticed "people living by themselves on farms without other people around" and "families not taking care of old people."
- Two Black women, state employees, were bothered by their White colleagues' preoccupation with appearance and materialism and lack of commitment to "people helping people."

Linking Past and Present

Would Tannenbaum (1990) make the assertion now that he made more than three decades ago about biting to the core of underrepresentation? Subjectivity, not faulty measurement, is likely part of this core. Teachers are de facto gatekeepers when program leaders want to know who might have been missed during screening of test scores early in the identification process. Their cultural values have impact at this stage—and earlier as well, because they affect the learning process. Teacher values may conflict with a student's values. Classroom reticence because cultural values do not encourage "showing what you know" and "standing out" precludes verbal assertiveness and other displays of eager learning, highly valued by teachers in the first study. CLD groups' valuing of wisdom, not knowledge, also fits poorly with the common emphasis on test performance during identification for special programs and in classroom academics (Peterson & Peters, 2021). In general, if bright CLD students have difficulty in predominantly White educational settings (Henfield et. al, 2017; Webb & Linn, 2016), they may miss opportunities to interact with intellectual peers in advanced classes, potentially affecting identity, social, emotional, and career development.

The differing themes in the teachers' referral language do not argue that the term *gifted* is inappropriate nor that appropriate programming is unnecessary. Instead, the focus here has been on how cultures differ in what they hold in high regard, and what is instilled in children as desirable and valuable in behaviors and learning. Cultural differences in values can affect identification, programming, and retention.

Findings in the two studies reintroduced here underscore that the terms *giftedness, achievement, potential, accomplishment, success, rigor, leadership, dependability,* and *work ethic* are all culture-bound, assumedly understood and applied according to cultural values in specific contexts. For the sake of exploring how underrepresentation occurs, scholars might explore these and other constructs nonhierarchically for meanings in school, at home, and across cultural groups—with respect to how they are constructed, ad hoc. "In the eye of the beholder" applies to equity concerns because policies and practices conceived according to dominant-culture values drive what is available for bright students.

In education, *gifted* has been a useful general term, but the perspective that giftedness is synonymous with achievement or productivity, according to the first study, is being increasingly exposed as ignoring differences among cultures about what is and is not valued (Peterson, 1999) and ignoring differences in developmental tempo and personal circumstances that affect whether, how and which abilities are demonstrated (e.g., Desmet et al., 2020; Peterson, 2001, 2002). Whether the term *gifted* should be changed (Gentry, 2021) is not the focus here. If it were replaced with another word, freshly minted and seemingly without political overtones, underrepresentation might still persist. Achieving crisper measurement for the sake of less-fraught decision-making might actually make underrepresentation of CLD students an even larger issue due to an increased number of bright students not identified as eligible (Matthews & Peters, 2018). This article has addressed only a few pertinent elements: the impact of cultural values on processes and some developmental, educational, and sociological factors that may affect who participates and who does not.

The fit of cultural values and behaviors in programs warrants critical attention, as do the persistent charges of cultural elitism in spite of serious efforts to move toward more equitable policies, programs, and participation. How programs are structured and whether they continue to segregate students into de facto cultural groups and economic levels (Sapon-Shevin, 1994) reflect cultural values.

Implications For Educators

If decision-makers respect the values reflected in the themes of the CLD communities when they are considering eligibility, they might rethink the notion of "fit" in program for bright students. When programs are designed to fit students' *needs* instead of students needing

to fit *programs* based on the dominant-culture values of competitive performance, eager display of knowledge, and assertive contributions to discussion, both dominant-culture and CLD students may experience a creative, holistic, differently constructed curriculum (Peterson, 2016), find common ground, and thrive among intellectual peers.

Rethinking "Rigor"

Rigor, too, might be conceptualized differently—perhaps with emphasis on broad understanding of multiple areas instead of mastery in one or only a few. Students might then be more prepared socially and emotionally, not just intellectually, for higher education (see Peterson, 2000b). Broad-based preparation might make higher education intellectually exciting—and social and emotional health less precarious—during young-adult adjustments to university life. Creative, interactive, collaborative program components can benefit all bright students while generating cross-cultural connections naturally.

A common assumption about educating bright, complex children and teens in familiar academic domains is that only *more* material, delivered *rapidly* and with heavy homework, reflects *rigor*. However, the construct of rigor should be examined critically. While a more-and-faster curriculum makes sense through the individualistic, measurement-oriented achievement lens of the dominant culture, that approach can preclude attention to complex societal problem-solving; critical thinking; *unfamiliar* and avant-garde areas of study; exploration in the humanities; and social, emotional, and career development.

Awareness of differing cultural values can help decision-makers not only during identification (e.g., how high ability is conceptualized and demonstrated), but also in program planning (e.g., communication and cross-cultural relationships among all invested adults). Such awareness can also help when formulating program philosophy (e.g., a social and emotional component at all grade levels; a rigorous curriculum without preoccupation with competition; a goal of broad knowledge and awareness, not just acceleration; community volunteers utilized to augment current curriculum with short-term enrichment; and prioritizing critical thinking skills and complex, real-world problem-solving. In the study of CLD communities, some of them valued practical application of intelligence highly.

Being Cautious with Assumptions

Not all bright, successful students are highly verbal (Peterson & Peters, 2021) and not all are eager readers and writers. ELLs may be verbally precocious, but only in their native language. Small-font print may dance on the page for someone with hypersensitive visual process-ing (Grant, 2016). Long-term projects and heavy reading assignments may not be a good fit for bright students with deficits in attention and may contribute to anxiety and dread. High-anxiety perfectionism, driven by a fear of mistakes and failure (Greenspon, 2021), might be less prevalent with a more varied curriculum.

Some bright teens may not be able to take advantage of academic enrichment outside of school because, for example, the family depends on the students' year-around employment (Aud et al., 2010). A varied, creative, and flexible curriculum can address enrichment gaps (Peterson, 2016), perhaps with volunteer lecturers from medical or other professional centers in the community engaging these students. Bright underachievers can interact in advanced classes with intellectual peers, perhaps with supports in and outside of class, learning in spite of low morale, anger, grief, isolation, and development-related challenges (Peterson, 2002, Peterson & Peters, 2021).

Applying Past to Present

How might the contrasting emergent values in the language of teachers and CLD communities be applied to underrepresentation concerns currently? Educators can consider their interpersonal interaction with CLD students. Interacting respectfully with CLD students and their parents and guardians can not only can foster mutually engaging communication and learning, but can also generate cross-cultural programming that promotes cooperation and collaboration. Thinking about acculturation as a continuum can help to avoid assumptions about strengths and needs of immigrant students based on cultural stereotypes. Valuing differences can also help to develop a teacher posture of learning *from*, not just *about*, diverse cultures and employing culturally sustaining strategies that celebrate them. Johnson (2018) believed that European Americans' acknowledging White privilege (i.e., advantages and entitlements not readily available to people of color) and the systems that maintain it is the first step toward addressing discrimination. Intentionally changing from advocating assimilation into White dominant-culture values, behaviors, and priorities to valuing and sustaining CLD ways of being are next steps. The culturally sustaining pedagogy is not new, but the concept of funds of knowledge and the renewed interest in respecting and appreciating diversity are evidence that CLD cultural values may increasingly be recognized as strengths, not deficits.

Social and Emotional Learning

Instead of, or in addition to, advanced classes, preparation for the transition to higher education can attend to developmental tasks (e.g., identity, direction, relationships, autonomy) high-ability students typically struggle with after they leave familiar territory, relationships,

and social and academic identities behind (Peterson, 2000a, 2000b). Scholars have generally neglected these areas. Developing autonomy is the greatest challenge during the transition to higher education, according to a follow-up study of bright students (Peterson, 2000a).

Curriculum focused on social and emotional development can actually be central to a program, reaching *all* identified bright students and embracing cultural diversity, including ELLs (Peterson, 2016). Studies have shown that regular small-group discussion focused on social and emotional learning can bring intellectual peers from diverse cultural backgrounds together to forge meaningful, cross-cultural personal connections (Jen et al., 2017; Peterson, 2013; Peterson & Lorimer, 2011). They can give and receive feedback about complex thoughts, develop expressive language, and normalize doubt and anxiety. Shy students can gain social information and feel known by at least a small group of peers (Peterson et al., 2009).

Especially important, ELLs can expand language skills through listening and interacting. When bonding and mutual support occur, cultural barriers may diminish. Talking about shared developmental tasks contributes to a sense of commonality (Gladding, 2003). Talking about the asset-burden paradox of high capability (Peterson, 2012) can normalize the stress of high expectations from self and others and raise awareness of nuanced cultural differences and similarities. Especially when enough teachers are not available for advanced levels, or when space is limited, small-group discussion, including dividing a class into small groups with an assigned developmental topic (Peterson, 2020), can be an efficient, low-cost approach to addressing needs of bright students from varied cultural and economic backgrounds, including preparing them for higher education.

Aware that some cultures value reticence and deferential respect for authority, wise teachers do not insist that students demonstrate knowledge orally. Teachers use light conversation between classes and when supervising study periods to learn about and validate diverse students' nonacademic gifts and talents, including, for some, being impressively bilingual or multilingual.

Embracing Complexity

Programs not preoccupied with measured performance (in contrast with cross-discipline learning, broadened awareness, and shared insights) can intentionally and overtly embrace complexity—nonlinear creative thinkers, uncommon learning preferences, and cultural differences in behavior and verbal expression. Adjusting curriculum to include natural social interaction can especially support CLD students who otherwise do not feel comfortable in dominant-culture settings (Peterson, 2002).

Conclusion

What is the "bitter core" Tannenbaum referred to? Is language at the core of underrepresentation—at least partly responsible? Does the referral language of the "teacher judges" (Foucault, 1977), which has been made "normal," epitomize unjust practices that continue because dominant-culture educators do not question their own and colleagues' biased referral and selection language? Do they not question it because professional development has not raised awareness of cultural values with respectful, non-pejorative, nonhierarchical language? Is their language in the study similar to their language when they discuss bright students in the teachers' workroom or the broader community? When they create and review policies and philosophy? Becoming self-conscious about word choice, tone, and bias might start to crack the granite of underrepresentation—not unlike the language shifts related to sexual harassment and race that began a few decades ago.

If power is invisible during selection, more studies exploring thinking, *through language*, are needed. More attention to sociological factors involving both educators and students and more anthropological perspectives in scholarship are warranted. Adding educator self-consciousness about language might lead to a shift regarding underrepresentation. The study of teacher language here made visible the power involved in deciding who should participate in programs. What is invisible cannot be controlled or changed easily. The study of language in the teacher and CLD communities revealed that cultural values are complex and rooted, affecting how education for high-ability students is conceptualized, created, delivered, and experienced. Addressing underrepresentation of CLD students in programs requires attention to all of these aspects.

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Literature Review

SENG Journal
Vol. 2, No. 1, 57-66

Gifted and LGBTQ: A Review of the Literature

Orla Dunne, Ph.D.

Abstract

The present review examines research with gifted LGBTQ individuals, in particular three recent studies which have significantly contributed to a field lacking in empirical research. Prominent themes in the literature will then be discussed, including identity development, peer relationships and support structures. Recommendations will be given on building positive practices for gifted LGBTQ young people. This review suggests that research in this area has notably advanced, in parallel with shifts in legislation, culture and attitudes toward LGBTQ people. Increased focus on aspects of diversity in gifted learners and gifted education have also contributed to this expanding field of research. Future research attention is nevertheless necessary, in order to a) continue advancing the field with strong empirical research, b) broaden the current context of gifted LGBTQ research (thus far almost entirely based within the United States) and c) promote the development of guidelines and best practice for practitioners working with gifted LGBTQ young people.

Keywords: *LGBTQ • gifted education • gender • diversity • gifted programs*

Introduction

The field of research on gifted lesbian, gay, bisexual, transgender and queer (LGBTQ) individuals is still relatively young, compared to other subfields within gifted education. It consists largely of position papers from gifted education advocacy groups and organizations, such as the National Association for Gifted Children (NAGC) and Supporting the Emotional Needs of the Gifted (SENG), opinion pieces (Eriksson & Stewart, 2005; Friedrichs, 1997, p. 997; Friedrichs & Etheridge, 1995; Tolan, 1997), broad literature reviews (Cohn, 2003; Friedrichs, 2012; Sedillo, 2015; Stewart, 2006; Treat & Whittenburg, 2006) and practical advice for educators (Dunne, 2021; Dunne, 2022; Friedrichs, 2014; Sedillo, 2018; Treat, 2017; Treat & Seney, 2021). Though limited, there is some empirical research on the topic (Hutcheson & Tieso, 2014; Lo et al., 2021; Peterson & Rischar, 2000; Sedillo, 2013; Treat, 2006; Tuite et al., 2021; Wikoff et al., 2021) and a small number of case studies (Sedillo, 2018; Sewell, 2019; Treat, 2010). Thus far, gifted LGBTQ research has almost entirely consisted entirely of US centric studies. The present review will explore three important new empirical contributions. Prominent themes within the overall field will then be examined, before recommendations for building positive practices for gifted LGBTQ young people.

This article does not propose that being LGBTQ and being gifted are challenges of equal measure (or challenges at all, for some), however it is important to consider how being LGBTQ can affect the social and emotional development of gifted students, amid the general demands of adolescent development (Peterson & Rischar, 2000).

DOI: 10.25774/VNTA-S564
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Gifted LGBTQ Research

Early Research

In 1995, Friedrichs and Etheridge conducted an informal survey on gifted issues within a non-heterosexual population and published their findings in the Council for Exceptional Children/The Association for Gifted Newsletter. Several of the gay, lesbian and bisexual youth who responded to the survey stated that educators should become more aware of the risk factors that these youth faced (Friedrichs & Etheridge, 1995). Friedrichs (1997) then extended this survey and reported that gifted gay students had social and emotional problems, which related to their combination of giftedness and sexual orientation and might increase the risk of suicide. Tolan's (1997) opinion piece on sex and gifted adolescents describes psychological challenges that gay gifted adolescents might face, giving hypothetical examples of situations. While Tolan (1997) does caution that the topic requires research in order to speak on the topic with certainty, along with Friedrichs (1997), Tolan's opinion piece remains a highly cited article on the experiences of gifted gay adolescents. Sedillo (2015) argued that the frequent citation of an opinion based piece (Tolan, 1997) and an informal survey (Friedrichs & Etheridge, 1995) was reflective of the overall lack of empirical research regarding risk and resiliency factors within LGBTQ gifted youth. However, each piece still

played an important role in beginning the discussion of support for this marginalized group.

A subsequent highly influential contribution to the field was Peterson and Rischar's (2000) retrospective study of the adolescent experience of lesbian, gay and bisexual young adults with high ability (there were no transgender or queer youth in this study). Using a post-positivist mode of inquiry, the authors found significant themes of isolation, depression and suicidal ideation, together with high achievement and over-involvement in extra-curricular activities. One of the themes which resonates with later studies in the area is that of loneliness. Peterson and Rishcar (2000) write,

> In general, these participants survived alone, with no role models, no gay peers, and no one or very few with whom they could share their feelings and thoughts, especially during the years of "wondering," but also after being convinced of sexual orientation.' (p. 240)

Previous Literature Reviews

Treat and Whittenburg's (2006) annotated bibliography on gifted LGBT students presented resources for educators and included studies featuring both gifted and non-gifted participants. This included articles, books, lesson plans and online media and was created out of the "NAGC Work Group on Sexually Diverse Gifted Students." Sedillo's (2015) literature review focused on barriers and limitations for research on gay gifted suicide and suicidal ideation. Sedillo found that little empirical research has been conducted on the topic generally, leaving most of what is presented in the literature to theories and assumptions. The limited amount of peer-reviewed literature and other published material regarding suicide and suicidal ideation for gay gifted youth emphasized the need for further research, which still stands true. Since the publication of each of these literature reviews, the field of gifted LGBTQ has expanded, with an increase in book chapters, journal articles and research studies published. There has also been increased attention on the specific needs of transgender and gender non-conforming gifted individuals (Dunne, 2021; Sedillo, 2018).

Three Influential Empirical Contributions to the Field

The last three years have marked a significant increase in empirically grounded research on gifted LGBTQ adolescents. In particular, three new studies (Lo, Hu, Sungar & Lin, 2021; Tuite, Rubenstein & Salloum, 2021; Wikoff, Lane & Beck, 2021) have provided excellent contributions to the field.

Wikoff et al. (2021) replicated Peterson and Rischar's (2000) qualitative study with college age students. Peterson and Rischar's (2000) retrospective study of the adolescent experience of lesbian, gay and bisexual young adults with high ability was the first influential, peer-reviewed contribution to the field of gifted LGBTQ research. Using a post-positivist mode of inquiry, Wikoff et al., (2021) identified three overall themes within their study; identity development (assigned identity, the discovery process, and intersectional identity), social dynamics (peers, educational stakeholders, and community), and mental health (coping skills). These mirrored some of Peterson and Rischar's (2000) results, which included significant themes of isolation, depression and suicidal ideation, together with high achievement and over-involvement in extracurricular activities. However, participants in Wikoff at al's study were better able to both find and connect with peers, who shared either gifted and/or LGBTQ identities, through gifted programming, advanced classes and extracurricular activities.

Another significant shift between each study is how participants defined their identity. While Peterson and Rischar's study had only gay, lesbian and bisexual participants, Wikoff et al. opted to allow participants to completely self-identify their gender and sexual orientation, which led to an expansive list, including eight different gender identities (female, male, agender, gender-queer, gender-fluid, trans, two-spirited and non-binary/other) and twelve different sexual orientations (lesbian, gay, bisexual, demi-sexual, asexual, grey-asexual, pansexual, queer, femme-aligned/gynesexual, homosexual, heterosexual and other) across seventy-five participants. This is reflective of wider LGBTQ research. Hammack et al. (2021) found that adolescents in their study were generally resistant or ambivalent toward labels which enforced strict ideas of gender identity or sexual orientation, while Garrett-Walker and Montagno (2021) found that just over a third of their sample endorsed an expansive gender identity and an expansive sexual identity. Self-identification is also an important aspect of transgender and gender non-conforming affirming research (Sevelius et al., 2017; dickey[1] & Green, 2007), as self-identification of both gender and sexual orientation allows for expansion beyond traditional taxonomic systems that centre attraction to a binary gender identity (Hammack et al., 2021).

Tuite's (2021) exploratory retrospective study examined the coming out experiences of gifted LGBTQ alumni from a United States residential gifted high school. Participants in this study all attended in-state home schools for their freshman and sophomore high school years, then transferred to the GT School for their junior and/or senior years. Students are admitted to the school based upon past academic performance, PSAT and/or SAT scores and noncognitive indicators such as drive, persistence, and motivation (Tuite, 2021). Within the study sample, gifted LGBTQ students reported realizing their sexual orientation / gender identity during

[1] Dr. lore m. dickey does not use capital letters for his name.

late adolescence (the mean age was 16.55 years), which was not significantly earlier than what is reported within the general field of LGBTQ research. Participants reported that the GT school was better equipped to fulfil their psychological needs than their home school was.

Overwhelmingly, the participants were more likely to share their LGBTQ status at the GT School (47.5%) in comparison with their home school (13.5%). Tuite et al. (2021) posit that this may be due the different developmental stage participants were at in their home school compared to the GT School. However, participants also discussed social fears as reasons they did not share at their home school and that they felt safer to share their sexual orientation and/or gender identity within the GT School environment. Many also expressed extreme concerns that their families would not accept them if they knew.

One interesting addition to a field that remains almost entirely US-centric is Lo et al.'s (2021) retrospective study, where researchers interviewed nine LGBTQ postsecondary students who are graduates of a highly selective and academically advanced high school in Turkey. Admission to the school was based on an extensive screening process, including a cognitive aptitude test, the WISC-V and observations from a week-long summer camp (Lo et al., 2021). The participants in the study were now attending universities in North America and are part of a peer-support network formed by the LGBTQ alumni of the school. Overall, participants utilized their personal strengths (i.e. advanced reasoning, resourcefulness) to mediate some of their identity struggles, found support in the open minded atmosphere of their high school and emphasized their appreciation of the opportunity to study abroad and reflect on their gender and sexual identities in a new cultural lens (Lo et al., 2021). The authors found that the ability to test, problematize, and then navigate through various value systems greatly helped their study participants gain a grounded sense of selfacceptance of their gifted LGBTQ identities. In several participant interviews, the researchers observed that a questioning of the "status quo" in Turkey helped the students to parse out the internalized homophobia obtained through a conservative national culture and provided a good evaluative tool for later life decisions. Three participants reported finding meaning in their mission to contribute positively to the wider LGBTQ community through the pursuit of their careers. One participant, Keith, saw his personal achievements in science as a political statement for the LGBTQ community, because representation of LGBTQ in every discipline can serve to normalize it. Another participant, Oliver, who was working as a social activist, stated:

> The world that we live in today is full of inequalities, problems, violence, and discrimination. It's not the world I want to be part of or live in, so my goal is to do more for a world where people are treated humanely and respected and can live with dignity. . . . .' (Lo et al., p. 176)

While Lo et al. state that the relatively positive experiences presented by the group are not representative of the experiences generally reflected by LGBTQ individuals in Turkey (one of the participants characterized this as 'constant life threats'), this remains a welcome and unique contribution to the field.

Prominent Themes in Gifted LGBTQ Research

Across all the literature reviewed, several prominent themes were identified, including identity development, peer relationships and the effects of support structures.

Identity Development

In terms of identity development, one overarching theme across the literature was the interactions of giftedness and LGBTQ identity. Participants in Wikoff et al.'s (2021) study considered their identity development in three ways; that gifted identity was more of an assigned identity, sexual/ gender identity was more of a discovery process, and the intersection of the two was complicated for some but helped others. Many participants in Wikoff et al.'s study began exploring their sexual orientation identity around middle school with some speaking to an awareness of being 'different', but being unsure how to interpret this emotion. Participants found information on the internet that helped, with one participant stating the following:

> I found out that I wasn't the only one in the world who felt like this in high school through googling "boy trapped in girl's body." What a relief to not feel so alone and broken. No one spoke to me about gender identity as a concept at all.' (p. 276)

This experience marks the cultural shift between Wikoff et al's (2021) and Peterson and Rischar's (2000) studies. The internet provided an entirely new way for the participants in Wikoff et al. to access information and find those with similar experiences, outside of educators or peers at school. The participant quoted above emphasizes their relief in feeling less not alone. In contrast, Peterson and Rischar (2000) found that the gifted lesbian, gay and bisexual adolescents in their study experienced significant loneliness, as struggles with identity development affected participants' sense of self and their development of social relationships.

The continuum of visibility (Cross et al., 1991; Cross, 1997) is a framework that is particularly relevant for gifted LGBTQ students, who must choose whether to hide and deny, or express and embrace, their sexual

orientation and/or gender identity. Students who are particularly sensitive will be acutely aware of the risk of harassment and discrimination and may engage in strategies of self-preservation by concealing their identity (Treat, 2010), developing disparate personal and private personas (Stewart, 2006), suppressing behaviors that are averse to stereotypical gender roles (Kerr & Cohn, 2001) or overcompensating for non stereotypical gender behaviors with exaggerated mannerisms (Hutcheson & Tieso, 2014). Hutcheson and Tieso (2014) describe some of their participants' intellectualizing of their issues around identity and external reactions. One participant, Nate, stated "I had to understand how to interpret [my sexuality] and how it would be viewed in the setting of my high school," while another participant, Chris, chose to be open about his sexual orientation at first, but stopped as he began to notice 'a direct correlation between me visibly dating someone at school and people calling me names' (p. 367). Social fears had a significant effect on the identity development for participants in Tuite et al's study (2021), in particular fear of rejection on coming out, alienation, prejudice and harassment.

For some gifted LGBTQ young people in the literature discussed, identity labels proved useful, while for others they were limiting. As discussed earlier, Wikoff et al.'s (2021) use of self-identification for participants allowed for an expansive list of sexual orientation and gender identities. The participants' ability in Lo et al. (2021) to manage their gender identity personally and publicly were evident in the interviews, with most participants preferring to use identity labels (such as queer, gay, lesbian) to represent experiences and for communicative purposes. One participant, Sue, described adjusting her identity label depending on who she is communicating with, using 'bisexual' for those who are not likely to understand queerness, and 'queer', with those who have enough knowledge around gender issues. For another participant, Edward, it was important to recognize how using a single label may come at the cost of being reduced to a "limiting combination of attributes and behavioral sets conforming to a preconceived category." Lo et al. (2021) state that by refusing to limit identity to a single label, self-acceptance can be directed toward the self, rather than a social image or set of expectations associated with the label itself.

Peer Relationships

A lack of clear social norms can lead to uncertainty and anxiety, particularly when a gifted student is also LGBTQ (Cross & Cross, 2015). Gifted students who diverge from heterosexual and gender role norms face difficulties with peers that may require interventions to prevent bullying and to promote self-esteem (Kerr & Multon, 2015). Without a supportive environment, which acknowledges and supports their talents and skills, gifted students generally can engage in inappropriate coping strategies, such as denying their talents, underachieving, or masking their giftedness from classmates to gain peer acceptance (Cross & Swiatek, 2009). This is relevant for gifted LGBTQ students, as it is another identity to decide to deny, downplay or mask entirely. Gifted LGBTQ students may also choose to push their high ability to the forefront, in order to deflect attention from their sexual orientation or gender identity (Wexelbaum & Hoover, 2014). In Wikoff et al's (2021) study, participants stated that peer relationships were generally more difficult in terms of their gifted identity, compared to their sexual/ gender identity. A participant in Hutcheson and Tieso's (2014, p. 363) study explained how he felt hearing statements like "that's so gay", or homophobic slurs, in school; 'those things were very disturbing and distressing… especially in the moment when you're pursuing your sexuality or trying to figure out who you are.'

The participants in Peterson and Rischar's (2000) study expressed that social discomfort was associated with isolation and questions about their identity (as early as elementary school) precipitated their social unease. Experiences of peer support were generally mixed for Peterson and Rischar's (2000, p. 239) participants, as 61% found support from high school peers, but others expressed fear ('I had to move away from everyone I knew to begin coming out') and the desire to wait until university to meet like-minded friends. In Sedillo's (2018) study, the gifted transgender participant reported having few, if any, supportive peers. Several participants in Hutcheson and Tieso (2000, p. 363) described their classes and extracurricular activities as "uncomfortably heteronormative," as they (consciously and unconsciously) reinforced heterosexuality as the norm and erased the existence of identities outside of this.

Students who are gifted, LGBTQ and part of another marginalized group may feel torn between balancing various aspects of their identity, or feel the need to internalize one identity in order to externalize the other (Sewell, 2020). Sewell (2019, p. 47) describes his internal conflict as a gifted, Black and gay youth, "Suppressing different points of my identities became critical to my success in school, perhaps especially by influencing my interactions with peers." A Black student in Hutcheson and Tieso's (2014) study expressed feeling isolated, as outside of her school GSA, there was a strong stigma against homosexuality at her predominantly Black high school.

From a positive standpoint, a participant in Peterson and Rischar's (2000, p. 239) expressed that his intelligence had allowed him to "spar, debate, and argue with the most adroit gay basher." A clever strategy for peer relations employed by participants Lo et al. (2021, p. 8) was "faking it until making it" and discussing LGBTQ

issues in front of friends without making a fuss, behaving as if it were already normalized. This strategy has the potential to facilitate self-acceptance by signalling to their peers that being LGBTQ is normal, thus encouraging inclusion, and by reinforcing an internal self-belief of normality (Lo et al., 2021). Participants in Wikoff et al.'s (2021) study spoke of the value of connecting with peers who shared either gifted and/or LGBTQ identities, through gifted programming, advanced classes and extracurricular activities. Participants in Tuite et al.'s (2021) study disclosed their LGBTQ identity to their friends first and most frequently and reported that their friends had a greater effect on their comfort in this, as opposed to the school support systems. However, family acceptance still played a major role in how Tuite et al.'s participants thought about their identity, with some citing family conservative values as impacting their decision to come out.

Support Structures

As a theme, support structures across the literature included support from peers, teachers, educators at gifted organizations and family. General LGBTQ research has shown that positive affirmation of identity from different sources can moderate the link between experiences of interpersonal victimization and anxiety or depression for LGBTQ adolescents (Busby et al., 2020), leading to overall improvement in wellbeing (Gillig & Bighash, 2021).

For the participants in Lo et al.'s (2021) study, talking to professionals, friends, family and consolidating a support network helped the participants overall self-acceptance. The participants described the support gained from having a centralized learning environment for gifted adolescents, which included possibilities for networking, intellectual debates and greater discussion on social issues than the educational environments they had experienced previously.

A lack of support from teachers, staff members and educational leaders can have a significant impact on feelings of safety within an environment (Kosciw et al., 2013). One gifted LGBTQ participant in Wikoff et al.'s (2021, p. 280) study shared that on reporting bullying and harassment to their school, "Teachers and school administrators didn't believe my reports, since 'with bullied students we generally see a drop in their GPA.'" One participant in Dunne (In Press) described her fear that teachers' negative views about LGBTQ people (which were subtly communicated in class) would impact her grades if she came out as gay at school.

> It was enough to make me scared to report any nasty behaviour as I wasn't entirely convinced that the matter would be handled appropriately. I also thought there was a possibility that reporting bullying or nastiness could "out" me to the staff and make the whole situation worse… I think I was probably right to have these fears because the way things fell, those teachers had a say in things like work placements and even predicted grades in my final year.

In response to a question about what educators should understand about the school experiences of gifted LGBTQ adolescents, participants in Peterson and Rischar's (2000) study noted the absence of LGBTQ role models as a factor in feeling without support. Having adequate role models is important for gifted LGBTQ adolescents (Treat, 2017) and one would hope that the shift in cultural and media portrayals of LGBTQ individuals provides gifted LGBTQ young people now with better access to than the participants in Peterson and Rischar's study.

Similar to the difficulties experienced within peer relationships, gifted LGBTQ young people may struggle with how their identity is managed in a family setting. Wikoff et al. (2021, p. 277) found that while participants' families were overwhelmingly supportive of their gifted identity, some were not as supportive of their LGBTQ identity, leading to one being prioritized over the other ("their concern has mostly been with my academics and future career rather than my sexuality"). However, one participant shared that the intersection between giftedness and sexual orientation made it easier for family acceptance as his academic and extracurricular accomplishments were held in high regard. Tuite et al.'s (2021) study offers insight into how family support structures continue to affect gifted LGBTQ individuals as adults, with one participant stating that their family is too conservative and religious to consider coming out and another participant fearing extreme social isolation if they came out, as they were currently in a committed heterosexual relationship and had children.

Building Positive Practices for Gifted LGBTQ Adolescents

Building positive practices for gifted LGBTQ adolescents is crucial to positive identity development. For participants in several of the studies referenced, their overall mental health was affected by identity struggles, from both an internal personal perspective and how others treated them due to their identity. Two participants (16%) in Hutcheson and Tieso's study (2014) reported experiencing depression during high school and others expressed feelings of unhappiness because of how being LGBTQ affected social situations. The transgender adult interviewee in Sedillo's (2018) case study, stated that he thought of committing suicide ten times during his lifetime, the first time being when he was 12 years old, giving the following reason: "Being transgender and not understanding it or knowing there were options or treatments…There was no one like me"

(p. 44). In a study of the experiences of gifted LGBTQ post-primary students in Ireland (Dunne, In Press), one interview participant related a harrowing account of bullying connected to her being transgender.

> Some guys in my school found my Instagram and I was outed as being trans…I was about to go into my exam year and that was very stressful at the time. Going to school I didn't know what was going to happen. For the entire year, I never went to the cafeteria. When I was walking in the corridor I heard people whisper and laugh and I knew they were talking about me. I had to stop going to PE, I was worried if anything would happen to me it would be there. The idea of going to PE gave me panic attacks. They created a group chat to dehumanise me and deadname me, so the bullying continued when I went home every day. Being a trans fifteen year old girl, who was very socially isolated at school already…It was awful.

In order to build positive practices, steps must be taken to avoid gifted LGBTQ adolescents experiencing struggles like those detailed above, which ultimately challenge any sense of positive identity development.

Policy

The interrelationship between legislation, policy and practice is crucial to provide appropriate provision for gifted students (Stack & Sutherland, 2014) and the same is true for all gifted LGBTQ students. While legislation is often beyond our control, educators working with gifted LGBTQ young people can make changes in terms of policy and practice to create a safe environment for students. In terms of policy, this should be a school or organization-wide effort. A clear code of behavior around anti-LGBTQ language is important, as this is a key element of bullying and harassment, as well as a factor in the overall climate of a school/organization for LGBTQ young people (Thurlow, 2001; Poteat et al., 2019). Policies should clearly define what constitutes anti-LGBTQ bullying, e.g. that repeatedly misgendering someone after being corrected will be deemed bullying.

Supportive Leadership

Educators, particularly those in positions of leadership, play a vital role in the creation of a positive (or negative) climate for gifted LGBTQ young people in a school or organization (Farrelly et al., 2017; Foody et al., 2018). O'Donoghue and Guerin (2017) identified that lack of training in the area and a lack of priority given to homophobic and transphobic bullying were key barriers to teacher interventions. Lo et al. (2021) advocate for sexual orientation and gender identity literacy to be included and enhanced in teacher training curricula, as the study participants described the significant influence of their teachers on their identity development. Schools and organizations can take steps to build this positive climate for gifted LGBTQ young people, including staff training (either internally or with a related external organization), physical displays of allyship and support where possible (e.g. a rainbow flag or icon in a classroom) and by setting the tone from the top down. If anti-LGBTQ language is tolerated casually in the staff room and amongst colleagues, or if LGBTQ teachers do not feel supported, it is difficult (if not impossible) to create a positive climate for those students. While leadership support is not always easily obtained, Kosciw et al. (2013) found that even one supportive educator can make a difference to a gifted LGBTQ adolescents' feelings of safety.

Extracurricular Activities

In Dunne (In Press), engagement with affirming extracurricular programs, including gifted enrichment courses, greatly increased gifted LGBTQ adolescents' feelings of belonging and overall identity development. Participants in the study reported significantly more positive experiences at a gifted summer program than at their school, including a decrease in the frequency of hearing anti-LGBTQ language at school and an increase in peer and staff support. Similarly, one participant in Hutcheson and Tieso's (2014) study connected his experience at a gifted summer program with a newfound awareness that the world was larger and more accepting than he realized, which encouraged him to persevere through the harassment and bullying at school. Lo et al. (2021) also emphasize the benefits their participants gained from extracurricular hobbies, which may include honing a skill that leads to boosted self-esteem and resilience. The creative arts were cited by participants in Dunne (In Press) as being significant in their identity development and overall positive experiences, with multiple interview participants choosing to follow their passion for this into university. One participant related that at school they often were told to "tone down" their identity and therefore enjoyed the chance to take part in extracurricular activities outside of school, like music, drama and performing in drag. Gifted LGBTQ young people may also find value and affirmation in LGBTQ advocacy and activism. Some of the youth in Higa et al.'s (2014) channelled negative experiences of anti-LGBTQ harassment into external projects, organising LGBTQ positive media campaigns at school, or talking with school officials about anti-LGBTQ attitudes and behaviors in the school.

Talent Development Model

One model which encompasses the practices above and may be useful to build further positive practices for gifted LGBTQ students is the Talent Development

Model of giftedness (Kerr & Huffman, 2018). This model focuses on developing individuals as they interact with their environment and challenges (Dai, 2017). Being twice different (or more) can lead to isolation and mental health issues for gifted LGBTQ youth (Levy & Plucker, 2003), as they must deal with their intellectual deviance from the mainstream and stigmatized sexual orientation and gender identity (Kerr & Multon, 2015). Subotnick, Olszewki-Kubilius and Worrell (2018) state that the aspired outcome of gifted education within a talent development model should be to prepare talented youth to transform their abilities into groundbreaking contributions to the world. Further research is needed on how the field as a whole can build on the existing research to cultivate the talents of gifted LGBTQ young people, ensuring they have the ability to develop their potential to its fullest extent.

Conclusion

While the field of gifted LGBTQ research is still relatively new, compared to other subfields within gifted education overall, the presence of gifted LGBTQ people is not. In Terman and Oden's (1947) fourth volume, the authors discuss seventeen of the study's gifted participants and homosexuality (within a chapter which also covers insanity, nervous disorders, alcoholism and delinquency). A mixture of experiences are reported, with some participants suppressing their sexual orientation, which Terman describes as "heterosexual adjustment" (p. 121). However, it appears others lived freely in their identity as the authors note that two female participants divorced "before becoming overt in their homosexuality" (p. 122). One male participant in this group appears in Terman's (1936) earlier work on masculinity and femininity, as his preference for feminine games, dressing in female clothing and wearing make-up was a concern to his mother. In order to avoid disapproval, the participant wrote plays for the neighborhood children, "each carefully provided with a feminine role for himself" (p. 14). While Terman goes to great lengths to state that the child had no knowledge about the concept of homosexuality, the participant revealed to his mother "that his love interests were unlike those of other men in that only boys had the slightest attraction for him."

I include the above, despite the controversial nature of Terman (see Sternberg et al., 2021), to illustrate two points. Firstly, while it is true that research on sexual orientation and gender identity among the gifted population has significantly increased in the past three decades, we must be aware that gifted LGBTQ young people have always been a part of the research. Secondly, some of the experiences reported by Terman's participants in the 1930s and 40s unfortunately are not completely dissimilar to challenges reported by gifted LGBTQ young people today. While (thankfully) research, legislation, culture and attitudes toward LGBTQ people has greatly advanced, there are still common themes of identity development challenges, fear of rejection and loneliness.

The present review examines research with gifted LGBTQ individuals, in particular three recent studies (Lo et al., 2021; Tuite et al., 2021; Wikoff et al., 2021) which have significantly contributed to a field lacking in empirical research. Prominent themes across the literature include identity development, peer relationships and support structures, all of which interact in various ways. Using these themes, recommendations for building positive practices for gifted LGBTQ young people are given, which encompasses policy, leadership, extracurricular activities and the use of the Talent Development model. While the articles from Lo et al., Tuite et al. and Wikoff et al. address a lacuna in the field, further research attention is nevertheless necessary, in order to continue advancing the field and broaden the largely US context of gifted LGBTQ research. Further collaboration between researchers and gifted program practitioners would also ensure that the research has a meaningful effect on the lives of gifted LGBTQ adolescents.

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SENG Journal
Vol. 2, No. 1, 67-70

Interview

Counselor's Corner: An Interview With Tim Stambaugh

Tim Stambaugh, Ph.D.
Interviewed by Tracy L. Cross, Ph.D.

In this ongoing series of interviews highlighting outstanding counselors with expertise in the emotional needs of gifted and talented youth, Dr. Tracy Cross spoke with Dr. Tim Stambaugh his career and philosophies. Dr. Stambaugh has been a member of the faculty at Vanderbilt University in Nashville, Tennessee for more than a decade, as a practicing clinical counselor.

Dr. Tim Stambaugh

Cross • *Please tell us about yourself. Where did you grow up? Where did you go to college? Tell us about your professional life. How did you get interested in serving students with gifts and talents?*

Stambaugh • As a high schooler in rural central Ohio, and considering which college to attend, I didn't realize counseling, in the form I now practice, was a career, let alone something I would find so rewarding. My family's business, building golf courses, provided me with great experiences working with my hands and with heavy machinery. I enjoyed the work, but knew I wanted something different. A strong work ethic was developed that I value even today.

When I began my higher education at Ohio Christian University and discovered counseling as a helping profession, I became convinced it was the path for me. My master's program as Asbury Theological Seminary and additional work at Ohio University gave me great experiences and prepared me to begin my work in a community agency in southeast Ohio. My wife was starting her career as a classroom teacher at the same time. She quickly become very involved in the local school's gifted program as a teacher and administrator. As we talked about the learning and social-emotional needs of gifted students, I often received calls from parents to offer support. Because of an awareness of the characteristics of gifted students I have often been able to quickly build a working relationship. One clear example is seen when talking with students and parents who say they feel heard in our work, something that doesn't happen often in their experience.

DOI: 10.25774/bgxq-6147
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Cross • *How would you describe your counseling practice?*

Stambaugh • I have been counseling for almost 30 years. In addition to my community agency experience where I primarily saw children and adolescents, I have worked in a private practice and currently work in the child and adolescent division of the department of psychiatry at a university medical center. My practice has, at times, been narrow on the theme of anxiety and at other times very broad as I was one of only two counselors providing services in county where we lived. Regardless of the setting, working with gifted students and their families has always been intriguing and rewarding.

Cross • *What have you found to be the most common issues that students with gifts and talents bring to your practice? What changes have you seen over the years?*

Stambaugh • It bears repeating that gifted students are, as many writers have noted, at least as well adjusted as their nongifted peers. My practice and my own research have shown this consistently. When gifted students do reach out for help, the symptoms are not uncommon, but there is a difference because of the complexity and intensity of their feelings.

I have found that gifted students, or parents on the student's behalf, seek help with feelings that have complex etiologies. When students become aware of local and global issues they often feel overwhelmed. Their ability to think deeply and understand the multiple implications of a situation can lead to great pain. When someone becomes aware of a problem and begins to imagine with great depth and complexity the many ways a social issue can negatively affect them, symptoms quickly escalate. I have found that most often gifted students are more aware of and intensely upset about the global impacts than more personal or local implications. A common factor that complicates the feelings is the awareness they have little to no control to change the situation.

Gifted students also tend to see far reaching implications compared to their age-mates. I frequently hear students report worry about an upcoming test, not necessarily whether they will do well, but how if they do

not do well it will negatively impact their grade, and then what level of class they will be offered next year which also impacts their high school courses, then college acceptance letters, programs, internships and finally their career path. In their view, their long-term career success falls squarely on the score of their 4th grade math test. Assuming the worst is not uncommon for anyone experiencing anxiety and depression, but the complexity and potential specific long term implications imagined by a gifted student maximizes the number of dominoes that could fall.

Cross • *What empowers counselors to be most effective within our counseling practice with gifted and talented students?*

Stambaugh • Having respect for a gifted student's individuality creates a positive relationship. It enables us, as providers, to join with them where they are and not make assumptions about them. Armed with little knowledge of the characteristics of gifted, it can be tempting to tell them what they must be feeling, and thus make it easy to offer solutions. This approach is not likely to go well. Work will be more effective when we set aside stereotypes and allow the student to be real. He may feel compelled to impress you. She may want to avoid showing a weakness. When the student sees your attempt to come alongside and avoid making assumptions, work will be more fluid and productive.

Cognitive Behavioral Therapy (CBT) is a common modality among many counselors and can be effective with gifted students, but there is a caveat. It is important to use the intervention in an age-appropriate manner while giving a reasonable consideration for asynchrony. It is tempting to just treat the gifted student like an adult because they use advanced vocabulary and have above age level thinking. With practice, a clinician can deliver intervention services to the level of the student's ability to understand and process intellectually, socially, and emotionally, among other domains.

Cross • *What topics are you most concerned about currently?*

Stambaugh • Several topics come to mind. One is perfectionism. Whether based on the expectations of parents, teachers, friends, or from within, perfectionism continues to be a common topic of work in my office. Currently, students have been initially frustrated and in time benefitted from working toward giving themselves permission to be imperfect. This topic stings at first. I often hear questions such as "so are you saying you want me to make mistakes?" Such pressure to be right or to prove one's value through impressing others often leads to an unwillingness to take the natural and necessary risks for learning. I work diligently to create space for taking a risk when the outcome is not obvious. That fear of failing or not being seen as "the smart girl" because she didn't quickly know what to do next can be paralyzing. When I give permission to not know and work toward knowing, gifted students generally become open and willing, but that ship does not turn easily.

As I mentioned previously, gifted students can be skilled at the cognitive distortion of catastrophizing. It can be easy to see many negative outcomes growing from a situation. Using cognitive skills to recognize and challenge the perception while validating the painful feelings is effective when the counselor doesn't get overwhelmed or starstruck by the complexity of the student's dilemma.

Another common theme is the guilt some feel for not living up to their own expectations. Lately I have noticed a shift away from complaints that parents and teachers place unrealistic expectations on gifted students. Instead, there is a rise in the internal expectation. This leads to working on finding their identity outside of their performance and to developing healthy relationships with their friends based on shared interests and not just competition over who scored the highest or who is taking the most Advanced Placement classes. Helping students to be aware of their internal beliefs about themselves and to recognize when they are not being fair can lead to more reasonable expectations and progress toward relief.

These patterns have their obvious implications, but can also apply to any concern a gifted student may have. Gifted students may not know why they are struggling, but also may be overwhelmed by the lack of governmental effort on climate change. They may not know how to come out to their parents or want to be sure their LGBT friends know they are an ally. They may also question the meaning of their lives and whether they can have an influence on the future of society. These are important concerns, but become much more complicated if they must handle them perfectly, have unrealistic expectations, or catastrophize the outcomes.

As I talk about these common themes, I want to also be clear that biological factors also exist and impact the wellbeing of gifted students. Emotional pain does not only come from distortions or unrealistic expectations. When neurological and biochemical factors are present, I have found gifted students frustrated their doctor wants them to take medication. Some believe they should be able to solve this on their own, like they do all the problems they face in life. Empowering students to use all available resources to find relief can be another example of how work in the counseling office can translate across the lifespan to address myriad stressors.

A final thought is that while individual work in a counseling session is a common approach when a child or adolescent is reporting difficult feelings, incorporating work with parents also very important. Parents frequently ask for help and state, "I just don't know what to do anymore. I've tried everything." Educating parents on healthy expectations and recognizing overt and covert

demands is valuable. Sometimes parents want to outargue their child and this often leads to power struggles as the gifted child may be convinced of his position and able to offer a more compelling argument than the parent. Empowering parents to see an issue from the perspective of their child can open communication and increase teamwork. A specific example of the parent's influence comes when they own their fallibility, giving permission, through experience instead of lecture, that mistakes are acceptable and can lead to growth instead of a source of shame to be hidden. Oftentimes parents have reported they had similar challenges growing up and found unhealthy coping skills that need to change. "I need this counseling as much as he does" is a common refrain.

Cross • *What should everybody know about the social and emotional needs of gifted individuals?*

Stambaugh • Organizations like SENG work hard to support gifted students and their families on many necessary topics and I haven't found many new arenas of concern. What I wish more people understood was the dramatic impact the social and emotional needs can have. My research has shown that factors like connections with friends, perceptions of boredom and belonging, and whether students believe their work has the right amount of challenge makes a significant difference on feelings of anxiety and depression. These factors matter. They are not just talking points for a parent support group or topics for additional reading in a graduate level class for teachers. It is important for parents and teachers to work with gifted students to have access to like-minded peers. It is important for students to have work that is meaningful, interesting, and not too easy. A perception of belonging matters for gifted students. A gifted student once told me "When I'm with other gifted students I fit in. When I'm not, I don't." These social and emotional needs have to be addressed and the good news is that we know this, and there are many pathways for taking steps forward.

Cross • *What are common misperceptions about the social and emotional needs of gifted students?*

Stambaugh • "Gifted students will be fine on their own" is a common misconception about learning needs, but it also applies to social and emotional needs. Struggling students may "fake well" and not reach out due to introversion or not wanting to be seen as weak and unable to solve a problem, but that doesn't mean they don't need support. Check in and give them a space to be real.

Because of their high abilities, some believe gifted students must be happy, proud of their work, and hopeful about the future. While these may be true for some, they are certainly not true for all. Our effort to validate the pain of students who are seeking help and normalize deep questions, even at an early age, can show the value of openness as well as recognizing and combating our own unrealistic expectations.

Cross • *As you reflect on your career working with gifted students, what are the most important professional lessons that you have learned?*

Stambaugh • Two thoughts come to mind. One was a humbling experience that occurred several years ago when a gifted student was becoming open about the difficulty he had with an injustice he observed. We discussed how sensitivity to injustice is not uncommon among the gifted and we explored healthy options for coping as well as actions he could take to bring change. As he applied our work to other injustices, he slowed his rate and volume of speech at one point. He began to discuss something that was very important to him, but it was a topic I personally did not find unjust. His opinion was different than mine and I didn't understand what made this topic so intense for him. As he honestly unpacked his concern, he recognized that I found the issue to be at best, minor. He was frustrated with me and said he wasn't sure we could work together if I did not agree with him. I have always worked to value my clients, even when we are not on the same page so I was surprised that he could read something in my voice or affect that caught his attention. We were able to recover and find a common ground that allowed us to proceed with our work. I'm glad he continued to make progress and achieve his treatment goals, but moving forward I have always sought to see why a concern is meaningful, to keep a curious mindset, even when at face value I don't see the same level of concern. It was meaningful to him. What was that topic? He struggled to make peace with the idea of keeping fish in an aquarium. It struck him as torturous to the fish.

Another lesson that seems obvious now is that working with the entire family is most often necessary. To help the student, parents, and oftentimes, siblings understand the underlying concerns of the student is powerful in the change process. This allows parents to face the challenges from a strength instead of deficit position. Parents also can make shifts in discipline, whether accommodations are necessary, and very importantly, how to advocate and help their child advocate for getting her needs met, especially at school.

Cross • *If you were to advise aspiring clinical counselors and psychologists about working with gifted individuals, what would you share with them?*

Stambaugh • Respect the autonomy of the gifted student without assuming stereotypes. This seems obvious, but in our best efforts to manage biases, it can be easy to minimize the social and academic needs of gifted

students. Assume the stance of a learner to create a non-threatening environment.

Gifted students have many people in their lives who expect them to have all the answers and to be right. Don't be one of those people. Give them room for their struggle, validate their journey, and work together to find pathways for change toward empowerment and peace.

Cross • *Given that most doctoral programs in psychology do not offer formal training in gifted education, giftedness, gifted psychology and so forth, how should we prepare psychologists to work with students with gifts and talents?*

Stambaugh • Many ideas come to mind on this topic, but here is one that doesn't get enough attention: Don't worry about trying to be the smartest person in the room. Self-discovery for the student is more important than showing that you can tell them what is wrong or why they feel badly. One example of this comes up when playing games in a counseling session. Games can be clinically useful for many reasons, but if I get my feelings hurt by losing at chess to a 5 year old, we will have a difficult time working together. I think it is more important to come alongside and join them on their journey. We will certainly work on coping skills and being real with feelings, but I don't want to focus on solving one problem at a time as I impress them with my prowess. By coming alongside and joining them where they are we open the door to the application of our work long after they leave the office.

Also, if you were identified as a gifted student yourself, remember that your experience may be very similar or very different than the client in front of you.

Cross • *What have I not asked you that you would like to share with us?*

Stambaugh • One last thought is about how powerful it is to affirm a gifted student who has been vulnerable. This may be the first time they have been this open with someone and you will create a safe environment that shows you value them even when they may be quite upset with themselves. Affirmation can lead to confidence in taking healthy risks with social and academic opportunities instead of only doing what they know they will be good at.

Tim Stambaugh, Ph.D., is an Associate in Psychiatry and Behaviorial Sciences and a clinical counselor at Vanderbilt University Medical Center, Department of Psychiatry. He has nearly 30 years of experience in community mental health and private practice settings. He specializes in working with children and adolescents with anxiety and depression symptoms as well as students who are academically gifted. His research focuses on the social and emotional health of gifted students, particularly how boredom, belonging, friendships, and academic match are related to depression and anxiety. Stambaugh received his PhD in clinical counseling, teaching, and supervision from Trevecca Nazarene University in Nashville, Tennessee.

ISSN 2831-5693