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What is This?

Parental Influences on the Academic Motivation of Gifted Students: A Self-Determination Theory Perspective

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Abstract

The home environment that parents provide their gifted children can have a significant impact on academic motivation, yet limited research has focused on this topic. Self-determination theory, a comprehensive framework of motivation, was used in the current study to explore two research questions: (a) What attitudes do parents of gifted students have toward the academic motivation of their children? (b) What approaches do parents of gifted students use at home to develop academic motivation? Interviews with 30 parents of gifted children from across the United States revealed three higher order themes including *Parents as Experts*, *Scaffolding*, and *Behavior Modification*. From a self-determination theory perspective, results suggest that despite good intentions, the parents of this study were inconsistent in providing home environments that support their children's development of internalized forms of academic motivation.

Keywords

self-determination theory, parenting, motivation, gifted children, United States

The assumption that gifted students are inherently motivated to learn has been challenged in the research literature (Gottfried, Gottfried, Cook, & Morris, 2005; McCoach & Siegle, 2003; Schick & Phillipson, 2009). Specifically, these studies reveal that academic motivation is independent of high intellectual ability and demonstrate how motivation influences achievement attainment in gifted populations. Academic motivation may often go unnoticed or even be dismissed with students of high intellectual ability because the work they produce is likely to be of high quality from a normative standard (Matthews & McBee, 2007). However, this type of dismissal can minimize the effort gifted students put forth in learning environments and can impede personal academic development. Understanding the phenomenon of what energizes and directs an individual to develop interest, enjoyment, and persistence for learning as opposed to boredom and disengagement is central to learning motivation research (Ryan & Deci, 2000).

The learning motivation literature with gifted populations has produced contrasting results. Investigations have compared levels of intrinsic motivation to learn between gifted and nongifted students and findings suggest that on average, gifted students have higher levels of intrinsic motivation than comparison groups (Gottfried et al., 2005; Vallerand, Gagne, Senecal, & Pelletier, 1994). On the other hand, there is also clear evidence that learning motivation helps explain differences between high-achieving and low-achieving gifted

students (Baker, Bridger, & Evans, 1998; Ee, Moore, & Atputhasamy, 2003; Gentry & Owen, 2004; McCoach & Siegle, 2003). Exploring influences of why some gifted students are highly motivated to learn whereas others are not could help link these two important sets of findings by highlighting factors that enhance or diminish academic motivation.

Theorists suggest internal personality characteristics and the social environment (i.e., classroom, school, family) shape academic motivation for all students including those of high intellectual ability (Baker et al., 1998; Deci & Ryan, 2008; Wentzel, 2002). Motivational literature related to the social environment of gifted populations has mainly focused on school influences such as classroom climates or teacher orientations and instructional strategies (Ee et al., 2003; Gari, Kalantzi-Azzi, & Mylonas, 2000). Currently, little is known about motivational environments provided by the families of gifted students despite the high levels of academic socialization that occur in this context (Wentzel, 2002) and the impact parents can have on academic achievement (Grolnick, 2003). Baker et al. (1998), in one of the few studies exploring this

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topic, found a significant relationship between family factors and academic underachievement among gifted preadolescents. Campbell and Verna (2007) provided a mixed-methods study on the home climate that gifted parents create and outlined "recipes" (i.e., strategies that parents use) associated with academic achievement. Whereas Campbell and Verna used a nonmotivational framework in this investigation (i.e., Bloom's Taxonomy), these authors address the motivational implications of different "recipes" on numerous occasions. Examining parents' attitudes and strategies using a comprehensive motivational framework to interpret the home climate could extend the work of Campbell and Verna.

In general academic settings, Gottfried, Fleming, and Gottfried (1994, 1998) explored the influence of parental support on intrinsic motivation and achievement over time. Findings revealed (a) the home environment of students had direct effects on achievement, (b) intrinsic motivation mediated the relationship between the home environment and academic achievement, and (c) intrinsic motivation mediated the relationship between the home environment and future intrinsic motivation. Gottfried and colleagues advised future research to explore the influences of the home environment on motivation using self-determination theory (SDT) because it provides a comprehensive taxonomy of motivation (Deci & Ryan, 2008; Ryan & Deci, 2000). Specifically, it accounts for intrinsic motivation and different types of extrinsic motivation as well as providing guidelines for how these different types of motivation are developed. The different motivational strategies that parents of gifted students use are explored in the present study from an SDT perspective.

Self-Determination Theory

SDT highlights a comprehensive taxonomy of motivation based on reasons that energize behavior (Deci & Ryan, 1985, 2008; Ryan & Deci, 2000, 2002). The three major categories of motivation in SDT are intrinsic motivation, extrinsic motivation, and amotivation. Intrinsic motivation relates to engaging in behavior for the inherent value or enjoyment of participation. An example of intrinsic motivation would be a gifted student who works on a school project in his or her free time because he or she enjoys it. Intrinsic motivation is considered the most internal, healthy, and self-determined type of motivation in SDT and it has been linked to a host of positive academic outcomes (see Deci, Vallerand, Pelletier, & Ryan, 1991, for a review). Extrinsic motivation is focused on engaging in behavior for an external outcome (Ryan & Deci, 2000). Amotivation emphasizes a lack of intention or value for behavior that results in either no action or passive behavior (Ryan & Deci, 2002). An example of amotivation is a gifted child who refuses to do his or her homework because he or she finds no value in doing it. Amotivation is considered the most external and least self-determined form of motivation in SDT.

The common distinction made in motivation research literature is intrinsic/extrinsic (Gottfried et al., 1998); however, SDT further delineates extrinsic motivation into four categories based on differing amounts of internalization. They include (a) integration, (b) identification, (c) introjection, and (d) external forms of extrinsic motivation (Ryan & Deci, 2000). Integration and identification are internalized (or self-determined) forms of extrinsic motivation, whereas introjection and external are controlling (or non-self-determined) forms of extrinsic motivation.

Integration is defined as engaging in behavior because it is imbedded in one's value system contingent on an external reward. For example, a student may work diligently in school because he or she personally values praise from teachers. The second self-determined form, identification, is characterized as engaging in behavior because it is deemed personally important contingent on an external reward. For example, a student may try hard in class because he or she has a personal commitment to getting good grades. Among non-self-determined forms of extrinsic motivation, introjection consists of engaging in behavior either for reasons not fully accepted as one's own or for social approval. For example, a student may study for a test to please his or her parents. Finally, external motivation describes engaging in behavior to satisfy an external demand (e.g., a student completes his or her homework to get a token reward or avoid punishment).

Intrinsic motivation and self-determined forms of extrinsic motivation are generally related to positive academic and well-being outcomes because behavior under these conditions is volitional and self-endorsed (Deci et al., 1991; Ryan & Deci, 2002). In contrast, controlling forms of extrinsic motivation are generally related to negative academic and well-being outcomes, because under these motivational circumstances, behavior is perceived to be directed by outside agencies. In other words, self-determined forms of motivation regulate behavior with feelings of choice (e.g., "I want to do my homework"), whereas controlled forms of motivation regulate behavior with feelings of compliance (e.g., "I have to do my homework"). Controlling forms of motivation can lead to complete resistance or withdrawal (e.g., "I will not do my homework") representing amotivation. Self-determined forms of motivation are also related to high levels of academic self-regulation, whereas controlled forms are linked to academic procrastination (Senecal, Koestner, & Vallerand, 1995).

SDT theorists posit that developing self-determined forms of motivation is based on the ability of social environments to support three basic human needs: (a) autonomy—desire to self-regulate behavior; (b) competence—desire to interact effectively with the environment; and (c) relatedness—desire to feel a reciprocal connection to others (Deci & Ryan, 1985, 2008). When parents or teachers create environments that fulfill these three needs, they provide autonomy support (Grolnick, Deci, & Ryan, 1997; Reeve, Deci, & Ryan, 2004; Roth, Assor, Niemiec, Ryan, & Deci, 2009).

Social environments that do not fulfill these three needs are deemed to be controlling. Controlling environments within SDT could range from overinvolved parents to those who are highly critical. The key is that the environment does not fulfill a child's needs for autonomy, competence, and relatedness. It is somewhat unclear how neglectful or laissez-faire parenting styles fit within SDT, and this could be considered a limitation. Grolnick and Apostoleris (2002) suggest that autonomy-supportive parents value giving their children choices, encourage their children to solve their own problems, reduce pressure and controls, and are able to take their child's perspective. Other research has supported a positive relationship between autonomy-supportive parenting and academic motivation at different levels of schooling (Grolnick & Ryan, 1989; Vallerand, Fortier, & Guay, 1997) as well as cross-culturally (Chirkov & Ryan, 2001). Controlling parents, in contrast, value obedience, solve problems for their children, always take the lead during interactions, and parent from their own perspective.

In summary, this study is designed to explore the social environments that parents of gifted students create to motive their children academically. Parental influences can have a significant impact on shaping gifted students' academic motivation at home and school; however, relatively little is known about home environments. We use an exploratory qualitative design to obtain a broad, naturalistic understanding of academic motivation development from parents' perspectives (Creswell, 1998; Lincoln & Guba, 1985). SDT is used as the theoretical framework because it provides a comprehensive taxonomy of motivation and guidelines for how these different types of motivation are developed. However, it should be noted that in answering our research questions, the goal was not to test the underpinnings of SDT per se; rather, we followed the common qualitative practice of emergent design (Lincoln & Guba, 1985; Patton, 2003). That is, we acquired firsthand accounts from parents and used SDT as a tool to better understand parents' reports concerning the academic motivation of their children. The specific research questions of this study were the following:

> *Research Question 1:* What attitudes and experiences do parents of gifted students report regarding the academic motivation of their children?
>
> *Research Question 2:* What approaches do parents of gifted students use at home to develop academic motivation?

Method

Participants

Parents of gifted children were selected from among the 265 respondents who had volunteered to be contacted for an interview in their response to an earlier nationwide survey investigating the perceptions of parents of the gifted ($N = 987$). Respondents had been recruited for the larger survey using a combination of narrowly focused sampling, targeting all parents of the gifted in particular classrooms or schools, as well as broad sampling through printed and electronic solicitations targeting members of gifted education associations and interest groups. Though gifted status was documented by self-report alone, this combination of sampling strategies was designed purposefully to reach the population of interest. Parents responding to the survey were asked to indicate the number of their children who were currently enrolled in a gifted program. Comparison with related survey responses about household size and composition shows that among the 30 respondents interviewed, half (15) reported only gifted children enrolled in programming, whereas the remainder also reported having one or more additional household members. Though unspecified, these might include additional gifted children outside of public school age, additional nongifted siblings, or other adult household members. Although survey respondents were not identified by street address, our analyses now in progress suggest that respondents represented a variety of geographic regions in the United States, and their self-reported ethnicity was consistent with the gifted population in U.S. schools (Yoon & Gentry, 2009).

Because one of the broader questions of interest in our interviews related to parenting the gifted among nonwealthy families, we attempted to contact all respondents whose responses fell in the bottom four of the six income categories on the larger survey ($n = 59$). This focus is appropriate because numerous studies have identified low-socioeconomic status learners as consistently the most under-represented group in gifted education and other academically advanced programming (e.g., Swanson, 2006; Wyner, Bridgeland, & Diiulio, 2007), yet relatively little research in gifted education has focused on these learners in the absence of other co-occurring characteristics such as ethnicity or immigrant status. Typically, students identified as gifted by their schools come from upper-socioeconomic status families who are able to access substantial additional resources to meet their children's needs. We suspected that parents having fewer resources might have developed novel or innovative strategies to work around financial limitations, although this question falls outside the scope of the present analysis.

Thirty-one of these 59 parents (53%) agreed to interview requests sent to the e-mail address or telephone number they had provided. One parent subsequently was dropped because she currently was living in Southeast Asia and her young child had not yet attended school in the United States, yielding a total of 30 completed interviews. Parents interviewed, all mothers, came from across the United States including the Pacific Northwest, Upper Midwest, South Central, and Southeastern regions. Respondents included 28 White females, 1 Black female, and 1 Asian female. This distribution of racial and ethnic representation approximates gifted program

participants in the United States overall (Yoon & Gentry, 2009). These 30 parents represented 39 gifted children. The children were almost evenly split between female (20) and male (19) and ranged from 4 to 17 years of age. One student was prekindergarten, 20 were in elementary school, 7 were in middle school, 9 were in high school, and 2 parents did not report grade level. Of the 30 parents involved in this study, 22 reported to have 1 gifted child, 7 reported having 2 gifted children, and 1 reported having 3 gifted children.

Procedures

Parents initially were contacted during July or August of 2009. A systematic script was developed and used to contact each participant who had expressed willingness to be interviewed in a previous survey related to perceptions of parents of the gifted. Research assistants with experience teaching gifted students set up interview times at each participant's convenience and provided an initial orientation to the interview as a part of the informed consent process. The research assistants, all female, also conducted the interviews primarily via telephone within 1 week of the initial contact. Three interviews were not conducted by phone but asynchronously via e-mail in response to scheduling issues. The semistructured interviews (Patton, 2002) included 11 questions, 5 of which contained two to three subquestions. Questions were developed to address topics identified through a systematic review of the scholarly literature on parenting and the gifted and addressed varied topics that included parenting strategies, motivation, and parents' relationships with their child's school. Two interview questions designed to learn more about motivation and parenting practices were as follows:

1. What approaches would you use to motivate your gifted child if you observed a lack of motivation in a particular subject or on a particular assignment?
2. What types of help, if any, do you give your child with homework?

Research assistants encouraged responses using active listening techniques during the interview process but did not make suggestions or offer their own opinions in response to parents' statements. The last interview question was open ended and asked parents, "What else would you like us to know about your experiences as the parent of an academically gifted learner?"

Analysis

Themes were developed using inductive analysis (Patton, 2002) and constant comparison (Glaser & Strauss, 1973) methods. All 27 telephone interviews were transcribed verbatim. The first stage of analysis consisted of open-coding responses from each of the 30 interviews to develop initial

categories. Specifically, two researchers experienced in qualitative methods independently coded the transcripts on a line-by-line basis to develop an initial set of categories. The researchers compared similarities and differences in categories using a data matrix technique (Miles & Huberman, 1994). Multiple iterations of the data matrix were made until both researchers agreed on the categories. Once the initial categories were solidified, the same two researchers independently analyzed and linked categories to develop higher order themes. Again, a data matrix technique was used to facilitate this process.

Multiple steps were taken to ensure the trustworthiness of data. Triangulation was established using multiple researchers during the theme development process (Creswell & Miller, 2000). Member checking was another procedure that developed trustworthiness (Patton, 2002). Transcriptions were e-mailed to participating parents within 1 week of the interview, with a request that parents clarify or add to their interview responses if they wished to do so. Approximately one third of those interviewed responded to this member check opportunity, primarily to offer minor grammatical changes or to clarify the spelling of acronyms in the transcription. A peer debriefer also was used in an effort to minimize researchers' biases. In this case, the peer debriefer was experienced in qualitative methods and the SDT framework but did not have a stake in the project. At different stages of the theme development process, one of the authors met with this external resource to discuss the results and obtain a skeptical viewpoint of the categories and themes.

Results

Three higher order themes emerged from the data analysis. *Parents as Experts* illustrates the theme related to parental attitudes toward academic motivation, whereas *Scaffolding* and *Behavior Modification* pertained to specific approaches mothers used to develop academic motivation at home with their gifted children. Direct quotes from interviews are used within each theme to represent parents' voices in the sections that follow. The number of children, their instructional level, and their gender are reported in parentheses after each parent's name; all names are pseudonyms.

Parents as Experts

The *Parents as Experts* theme was represented by 80% (24/30) of the mothers interviewed. Consistent interaction and a comprehensive understanding of the unique personal characteristics of their child (or children) led these mothers to view themselves as experts on the topic of their child's academic motivation, but they did not always feel successful in shaping it. Overall, 60% (18/30) of the mothers considered developing academic motivation as an intensive and at times frustrating process with their gifted children. "Strong

willed," "opinionated," and "not easy to direct" were characteristics that made cultivating motivation difficult; therefore, mothers reported that the use of a variety of strategies was necessary to effectively enhance academic motivation. For example, one of the mothers, Emily (one son in elementary school), reported,

> Ever since he was little, nothing really works to persuade him to do something that he really doesn't want to do. It takes a variety of different things that we do. If you take something away as a punishment for him not doing something, it really doesn't faze him. That is very frustrating as a parent. . . . The same thing never works with him several times in a row. It has to be changed.

This attitude was noted frequently during the interviews. Madeline (one son in elementary school) stated, "I've tried a variety of motivating techniques, each of which would work for a little while and then not anymore." Similarly, K. J. (one son in middle school) noted, "There are some challenges that we work through. I can't give you any specifics, how we do it [motivate our child], because it changes every time. One strategy might work for one time but not another."

Parents had to keep up with their child's interest to maximize academic motivation, and replicating a single strategy or lingering in the same content lost its effectiveness over time. Samantha (one daughter in high school) revealed, "I've bought several different curricula and we searched on the Internet to find a variety of different ways to get the repetition without staying in the same book or doing the same thing over and over again." Responsive techniques worked best for these parents.

More than half (16/30) of the mothers in this study identified the motivational climate of schools as a contributing factor to the difficulty they experienced at home. Teachers were viewed as out of touch with the motivational needs of their gifted children, and classroom practices were often regarded as a barrier to academic motivation. Lack of appropriate challenge and meaningless assignments were common complaints. The following statement by Tracy (one daughter in elementary school) highlights the sentiment that many of the parents had expressed:

> It is sad that school has turned my formerly curious, bright-eyed child into a compliant, achieving child who feels the need to jump through hoops that are way too low for her and to endure seat time where little if any learning is taking place.

Parents worried that the lack of challenge and meaning in school assignments and homework led to a host of negative outcomes in their children, including academic amotivation. Stacey (two sons in elementary school) reported,

> We've had some problems [with motivation] because our school uses a lot of handouts. A lot of their work is just Xeroxed sheets. That gets kind of tedious, if you're good at it. I imagine it's tedious even if you're not good at it. But if you're good at it, then you just kind of whiz through. And you're sick of it, and you think you don't like math anymore, because math has become so boring.

As a consequence, parents reported a willingness to modify homework or even change assignments because they felt they had a better grasp of their child's academic motivation than teachers did. For example, Madeline (one son in elementary school) reported,

> This [motivation] was a huge challenge last year because the homework being sent home was so basic. Because it was not at all challenging, he would throw fits about doing it. . . . For math, I sometimes substituted in harder math worksheets that I printed out from websites. And I had him turn those in instead of the simple math worksheets sent home.

Attitudes of "parents as experts" deemphasized teacher authority and the adequacy of the schooling environment in favor of parental oversight and control.

Scaffolding

Parents delineated a variety of specific approaches they used in their homes to develop academic motivation. More than 80% (25/30) of the mothers reported using scaffolding techniques such as interactive instruction (16/30), restructuring the learning environment (21/30), relating homework to interests (12/30), and developing internalization (14/30) as methods for enhancing academic motivation at home. For example, Amy (one daughter in high school and one in middle school) noted her interactive techniques:

> I try and help them [my gifted children] as much as possible but not do the work for them, and I think that kind of confuses them, because when they ask for help, more or less they are asking for the answer, and I don't give the answer. I help them find it. I think a lot of parents want their children to do well and they find answers for them.

Restructuring the environment (70%) was also a common practice according to these parents. This included helping with time management, providing supplies necessary to complete assignments, and breaking down assignments into manageable parts. In Barbara's words (one daughter, grade not reported), "We have discussed breaking the assignment down into very small parts and then let my child control the

scheduling details of completion. That kind of combination of support and letting my child have control works well."

Getting their gifted children to internalize the importance of school via logic (47%) or relating assignments to interests (40%) were also important motivational scaffolding techniques the mothers of this study highlighted. Kathryn (one daughter in high school and one son in middle school) revealed,

> It's important in life to learn that there are things that you just have to get done because people who are in a position, teacher or boss, they expect it of you and you just have to do it, and you don't have to do your very best work on everything but you do need to get things done. Sometimes, it's a matter of ok, what kind of academic record do you want to have, where are you thinking of going to college, what are your long-term goals and is doing well with this particular assignment or effort, is that is something that you can see that might benefit your long term overall goals?

Scaffolding academic work to their child's interests was also considered valuable by the parents in developing academic motivation. For example, Deidra (one pre-K daughter) reported,

> I actually feel pretty strongly that she needs to be able to work on things that interest her. So far, we have found that where there is interest, there is motivation. So if I felt she was not motivated, I would try to change the subject to something she might be more interested in.

Likewise, Tracy (one daughter in elementary school) remarked,

> I get involved to initiate her interest . . . say, in different genres of books that are collecting dust on her shelves. Once I discuss why they are cool books, she starts getting interested and makes some choices to read.

Parents tried to build on their child's academic talents and previous academic experiences in order to provide a supportive, child-centered environment with scaffolding techniques.

Behavior Modification

Using behavior modification techniques (9/30; 30%) to enhance academic motivation was not as prevalent as using scaffolding methods; however, a portion of the mothers' comments did highlight different rewards and punishments they used at home to promote academic motivation. At times, the behavioral outcome of completing homework and school assignments or doing well in school appeared more important to parents than the actual learning process. Free computer time or computer games were common rewards. For

example, Barbara (one daughter, level not reported) noted, "My child has to complete 10 minutes of computer 'work' for every [computer] game session she is allowed."

Another reward parents used was money (for one daughter in elementary school): "I have noticed that this year I went to bribery. I told her that if her grades came up in certain areas I would pay her and I did and her grades did come up." Some parents such as Crystal (one daughter and one son in elementary school) had misgivings about using rewards but found utility value in them: "Sometimes I just go ahead and say, 'look, there has to be—I hate to do this—but some kind of token at the end.'"

Punishments were also discussed as techniques parents employed. Lacy (one son in middle school) described it this way:

> Taking away privileges I guess is part of it. We try to get him to see that he has choices. If he does not make good choices, then there are consequences. Which I guess you can say that I punish him. We take away his cell phone, iPod, and his computer, but we try to do it in not such a negative way.

Punishment helped these parents establish boundaries on the academic behavior of their gifted children. Jesse (one daughter in elementary school) revealed:

> If I think it's something important in terms of basics, we just fight it out. Then he has to do it or he is in a lot of trouble. He knows what to do; it's just sitting him down and making him do it.

These behavior modification strategies had an extrinsic focus revolving around what the parent wanted the child to do or accomplish academically.

Discussion

The purpose of this study was to explore how parents influence academic motivation in their intellectually gifted children. Specifically, we examined parents' beliefs and attitudes toward their children's academic motivation and the strategies they implement at home to develop academic motivation. In the following discussion we use SDT as a lens to better understand the emergent interview themes.

Parental Attitudes

Parental attitudes toward academic institutions can act as strong socializing agents for their children and influence a host of learning variables including motivation (Wentzel, 2002). From an SDT perspective, findings related to parents' attitudes in this study provide assurances as well as concerns about the effects these parents were having on their gifted

children's academic motivation. More than half of the parents highlighted the importance of using a variety of responsive techniques at home to enhance their children's academic motivation, and this reflects a key ingredient to providing autonomy-supportive environments (Reeve et al., 2004). Parents were willing to modify home learning environments based on their child's unique personal attributes. Intimate knowledge of their child's attributes was highlighted by parents as a helpful tool in developing responsive environments; however, the strategies used within these environments were not always harmonious with supporting internalized forms of motivation.

Many parents perceived their gifted children to have characteristics that made promoting academic motivation difficult, especially if parents relied on only one strategy. This could be problematic because parents are more likely to institute controlling home environments when they view their children as being difficult, to reinforce power in the parent–child relationship (Grolnick & Apostoleris, 2002). There did not appear to be a clear distinction between using a variety of techniques to get their children to complete assignments (i.e., controlling) and using a variety of techniques as a means to enhance intrinsic motivation for learning (i.e., autonomy support). Parents who are able to make this distinction and emphasize autonomy support at home would be more likely to foster internalized forms of academic motivation (Ryan & Deci, 2002) and subsequent positive academic outcomes (Grolnick, Ryan, & Deci, 1991) for their children.

The negative attitudes parents had toward the motivational climate of their children's schools stemmed from the perceived inability of teachers (whether specially trained or not) to meet the competence needs of these gifted children. More than half of the parents discussed how school assignments and classroom environments rarely provided appropriate challenge or meaning, hindering the development of academic motivation. Surprisingly, only 2 of the 30 parents specifically stated that there was no gifted program at the school their child (or children) attended. In SDT, supporting competence in educational settings is an essential element of autonomy support and a precursor to developing internalized forms of motivation (Deci et al., 1991; Reeve, 2002; Reeve et al., 2004). The fact that parents were in tune with this tenet of SDT could contribute to the development of higher forms of academic motivation for their children and may help explain why some research has identified higher levels of intrinsic motivation in gifted students compared with non-gifted student populations (Gottfried et al., 2005; Vallerand et al., 1994).

On the other hand, parents' negative attitudes toward school environments could easily undermine their children's motivation for academic pursuits, especially in the school context (Campbell & Verna, 2007). Past research has revealed that parental involvement, especially with homework, can create teacher–parent conflict and have negative associations with a child's academic achievement (Epstein, 2001). From the SDT perspective, the presence of a disconnect between school and the home would likely detract from a child's feelings of relatedness (Furrer & Skinner, 2003). In plain terms, it would be difficult for the gifted child to build a reciprocal connection to the teacher if parents were unsupportive of the teacher. Building effective partnerships between the school and home environments would likely reduce parent–teacher conflict and maximize the potential for academic motivation (Baker et al., 1998; Epstein, 2001; Koutsoulis & Campbell, 2001). Parents' dissatisfaction could suggest that gifted teachers need to reach out to parents on a more consistent basis to facilitate open communication about personalized motivational strategies that parents and teachers view as effective. This finding also may provide an additional line of support to the many calls in the literature for increased training of general education teachers in working effectively with high-ability learners (e.g., Geake & Gross, 2008).

Parental Approaches

SDT theorists suggest that students experience intrinsic, integrated, and/or identified forms of motivation when they are in educational settings they perceive to support autonomy, competence, and relatedness (Deci et al., 1991). The parents of this study identified a combination of autonomy-supportive and controlling strategies to develop academic motivation at home. Many of the strategies that parents highlighted within the *Scaffolding* theme, such as recognizing academic interests and using reasoning or logic, have been documented as autonomy supportive and linked to self-determined forms of motivation (Reeve, 2002; Reeve et al., 2004). However, using behavioral modification techniques that focus on token rewards and punishment are the epitome of controlling environments. From an SDT perspective, the good news is that more parents in this study reported using scaffolding techniques (80%) than behavior modification techniques (30%), and only 10% of the parents reported using behavior modification techniques alone. Approximately 28% of the parents who reported using scaffolding techniques suggested they also used behavior modification techniques with their gifted child. Inconsistent autonomy support at home could produce significant variability in self-determined forms of academic motivation for gifted students. More research is needed to investigate the relationships among autonomy support at home and school, self-determined motivation, and achievement versus underachievement in gifted students.

Inconsistent autonomy support is not necessarily uncommon practice for parents (Grolnick & Apostoleris, 2002) or teachers (Reeve, 2002). Reeve suggests there are numerous reasons for inconsistent autonomy support, including the popularity of behavior modification principles in teaching programs. Parents' own schooling experiences likely

incorporated behavior modification techniques, and using them at home with their own children would be common. Furthermore, behavior modification principles are often modeled as effective parenting in the popular media both in Europe (e.g., Supernanny U.K.) and in North America (e.g., Supernanny U.S.). From an SDT perspective, behavior modification strategies fail to account for the difference between controlling and internalized types of motivation. Parents likely would have greater success in developing internalized motivation using fewer strategies, as long as these were autonomy supportive in nature (Grolnick, 2003). Controlling principles such as behavior modification are generally implemented when children/students are disengaged, resistant, and/or during pressure situations (e.g., prior to when an important assignment is due; Grolnick & Apostoleris, 2002; Reeve, 2002), yet this approach may actually compound the problem and further reduce academic motivation. It seems plausible that inconsistent autonomy support at home could be related to underachievement in gifted populations (Ee et al., 2003; Gentry & Owen, 2004; McCoach & Siegle, 2003).

Conclusions and Limitations

Although our sample size does not allow for broad generalization and this clearly is a limitation to the current study, findings provide a descriptive analysis of how these parents view academic motivation in students with high intellectual ability and the influences that parents report having in its development. SDT differentiates multiple types of motivation, and this study is one of the few to date that has made the distinction between controlling and autonomous forms of academic motivation in gifted populations. The qualitative nature of this study does not provide an inclusive list of attitudes and strategies that parents use to develop academic motivation at home (i.e., parents could use strategies that they did not report in the interview). However, the findings do provide initial descriptions of how 30 parents view developing academic motivation at home and the common strategies they report using. The results of this study can provide a foundation for examining more specific parenting questions, such as exploring possible differences in developing academic motivation among males and females or older and younger children, with larger samples. Future research could also seek to distinguish between different types of motivation as outlined in SDT with larger samples to develop a more complete understanding of the relationships between academic motivation and achievement/underachievement outcomes. Exploring similarities and differences between the strategies that parents use with gifted versus nongifted children, especially in the same family, could also enhance the current motivation research literature.

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