

The Challenge of Students with Autism Spectrum Disorder (ASD) in Honors Programs

SUSAN YAGER

Iowa State University

In the early summer of 2006, an intense, dark-haired woman glanced around the conference table where I sat with a number of advisors from the Iowa State University College of Engineering. The speaker, a PhD in animal science, was interested in efficient design for handling animals, a topic of interest to professionals in both engineering and agricultural fields, but she was also deeply concerned about education at the college level. Her remarks were as focused as her demeanor while she urged her listeners to “Take care of my Aspie boys . . . take care of my Aspies.” The speaker was Colorado State University professor Temple Grandin, arguably the most famous person with autism in the United States. She was referring, of course, to engineering students with Asperger’s Syndrome, now called high-functioning autism.

Grandin’s message was memorable and inspiring, especially coming from a woman who has done perhaps more than anyone to raise awareness of Autism Spectrum Disorder (ASD) and its challenges, as well as of the contributions

to society that can be made by people on the autism spectrum. Both as a child and as an adult, Grandin courageously overcame sensory overload, cognitive differences, and social impediments. She claims that her expertise in animal behavior stems partly from an empathy with animals and her tendency to “think in pictures,” strengths that are directly related to her disability (Grandin, *Thinking* 19). Grandin gained a high degree of national fame through the 2010 HBO film that bears her name, but she became known originally for her 1986 autobiography, *Emergence: Labeled Autistic*. At the time of its publication, it provided a unique insight into the life of an autistic person.

As her achievements suggest, a great deal of Grandin’s fame has derived from the fact that for much of her life she was, without doubt, a rarity: a woman who was highly intelligent, academically ambitious, and autistic. However, as both Grandin and the general public are now aware, autism is no longer a rare or seldom-recognized condition. Students with autism are increasingly present on college campuses, and because many young adults with autism are cognitively gifted, it follows that honors programs and colleges are obliged to be aware of this “invisible” disability and be ready to accommodate, and educate, honors students on the autism spectrum.

When Grandin spoke to the College of Engineering’s advisors on my campus, I was working as associate director of the university’s faculty development center. Not long before, I had attended a conference in Tucson, the National Faculty Center Institute for Facilitating the Success of Diverse Learners, where I first realized what seems obvious now: that freedom from discrimination on the basis of disability, including social disability, is a matter of civil rights, on a par with freedom from racism or sexism. While at the faculty development center, I also learned about the concept of universal design, that is, the creation of processes or structures that work for everyone because they are designed for the diverse and unpredictable “universe” of users. Electric-eye doors provide a simple model of universal design: no one, with or without a shopping cart, child in arms, or wheelchair, needs to worry about opening them. Universal design, as the work of Sheryl Burgstahler and others makes clear, is a powerful concept in higher education. Put simply, it is of great value to students to have their teachers keep in mind the needs of every person in the classroom. These two basic ideas—respect for the rights of students with disabilities and the value of course planning for a diverse group of students—have shaped my thinking about students with autism in higher education.

SYMPTOMS AND INCREASING PREVALENCE OF AUTISM

Since the early 1990s, increasing numbers of children in the U.S. have been diagnosed with ASD. According to the Centers for Disease Control's Autism and Developmental Disabilities Monitoring (ADDM) Network, roughly one in 150 American children born in 1994 and thus now of traditional college age is on the autism spectrum. By 2008, the ratio had increased to 1 in 88 (Pinder-Amaker 125). According to the American Psychological Association's *Diagnostic and Statistical Manual of Mental Disorders* (DSM), children with autism are likely to have problems with social and emotional interaction, difficulty with nonverbal communication, and sometimes difficulty with relationships (50). Although a substantial proportion of children with autism also have intellectual impairments (DSM 51), many do not (Rutter 396). In numerous school districts, children with symptoms of autism are offered intensive, behavior-based early education, which can benefit children both socially and intellectually (ASAT). Quite a few of these children grow up "twice-exceptional," as described by the University of Iowa's Belin-Blank Center; bright and high-functioning, they may have an Individualized Education Program, tailored for students with disabilities, yet also be enrolled in a talented-and-gifted program. As was clear in the 1990s and is clearer now, many cognitively gifted students with mild to moderate social disabilities are currently in college or are on their way.

Because the number of college-bound students with autism will certainly continue to rise, educators need to prepare for this ongoing demographic shift. Of course, for years many "Aspies," as Grandin called them, perhaps never formally diagnosed, have been enrolled in college; some few, at the milder end of the spectrum, have become professors (O'Shaughnessy). In my years in faculty development, I could not imagine precisely how, other than through raising awareness and discussion, those in higher education could prepare for such a different and challenging cohort. While undoubtedly some people with autism thrive in an academic setting, I worried—as a faculty developer and also as the parent of a child with high-functioning autism, or HFASD—about how the presence of students with ASD in college classrooms would affect both faculty and students.

AUTISM IN POPULAR CULTURE

Fortunately for educators who may have been caught unaware by the increasing prevalence of ASD in the U.S., the student population of the new

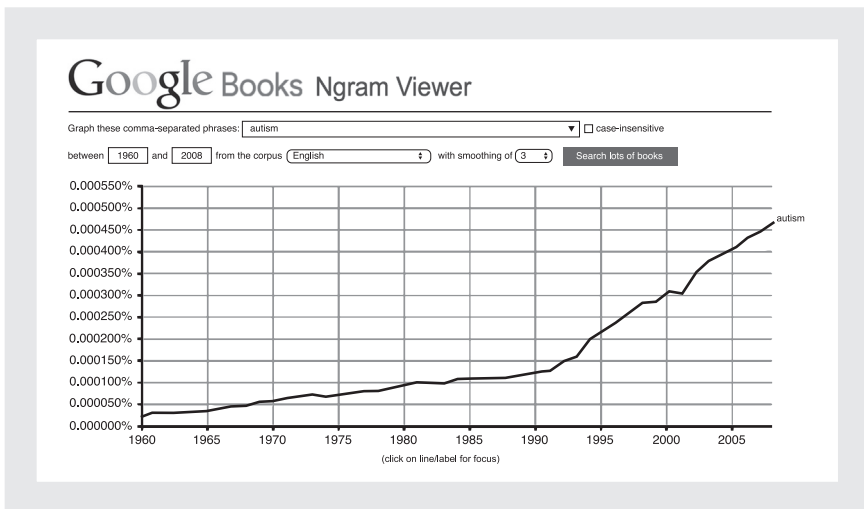
millennium has been well-prepared to encounter autism in their daily lives, although encountering autism is not the same thing as being accepting of it (Nevill and White 1619). Popular culture did a great deal of this preparation by means of film, television, and fiction, especially books for children. In the early 1990s, many Americans' primary point of reference regarding autism was Barry Levinson's 1988 film *Rain Man*, in which Dustin Hoffman plays a sweet-natured, sometimes brilliant man who has been institutionalized for much of his life because of his autism. Hoffman's character is a savant regarding numbers; he can see at a glance how many toothpicks spill from a box and counts cards at a Las Vegas casino. While many people with autism have substantial skills in memory, mathematics, and related areas (Rutter 396), the film, though groundbreaking, was nonetheless criticized for its superficial treatment of autism. A similar breakthrough into popular culture was Peter Hedges's *What's Eating Gilbert Grape* (1991) about a teen who cares for an autistic brother; this book became a popular film in 1993. In the ensuing years, the topic became a focus for many artists and writers, thus rapidly entering mainstream culture. For example, Jane Taylor McDonnell's *News from the Border* (1993) was among the first of a flood of so-called autism memoirs, many written by the mothers of children with ASD. These nonfiction publications were accompanied by increasing numbers of fictional treatments, such as Elizabeth Moon's *The Speed of Dark* (2002), featuring a protagonist with high-functioning autism, and Mark Haddon's *The Curious Incident of the Dog in the Night-time* (2003), narrated by a boy with Asperger's Syndrome. Autism became a theme for many children's authors, including Colby Rodowsky (*Clay*), Gennifer Choldenko (*Al Capone Does My Shirts*), and Jennifer Elder and Marc Thomas (e.g., *Different Like Me: My Book of Autism Heroes*). In the past four to five years, the number of new books for children on the topic of autism has skyrocketed. According to WorldCat.org, from 2010 to 2015 more than a hundred books were published on autism in the category of juvenile fiction alone.

A similar phenomenon occurred in television and was picking up steam at just about the time Grandin was visiting my campus. In 2003 Wally Stevens (his name is a play on the poet Wallace Stevens), a murderer who has Asperger's, surfaced on the crime show *Law & Order: Criminal Intent* ("Probability"); from 2005 to 2010, deeply introverted mathematician Charlie Eppes helped solve crimes on *Numb3rs*. References to autism in U.S. culture boomed in 2007, when Gregory House's colleagues on *House, M.D.* wondered if he had Asperger's but decided he was "just a jerk" ("Lines in the Sand"), and Jim Parsons began his Emmy-winning turn as geeky scientist Sheldon Cooper in

The Big Bang Theory. Add to these pop-culture references a flood of blogs, YouTube videos, and the emergence of national organizations such as Autism Speaks, and one can easily see why, according to Google N-gram, occurrences of the word *autism* increased eight-fold between 1970 and 2008 (see Figure 1 below).

For the cohort of traditional-age students now in college, then, *autism* seems a common word for an increasingly commonplace condition. With educational changes brought about since the 1990 Americans with Disabilities Act, many students with autism and other disabilities spend part or all of their K–12 days in the mainstream classroom. While they may be pulled out of class for special reasons, so are the very brightest students pulled out for talented-and-gifted programs or for college classes, so there is little or no stigma attached to leaving the classroom for part of the school day. Given the prevalence of the condition in the U.S., few if any grade schools or high schools have enrolled no students with autism. Although both the literature on autistic children and my teaching experience bear witness to the fact that some students with autism are bullied (see Hart and Whalon 277), and I know that the words *autism* or *autistic* are sometimes used pejoratively (often to mean “clueless”), I’m nonetheless confident that most neuro-normal students are likely to perceive a high-functioning autistic student as just another classmate. Millennials, in short, are becoming exposed to autism both in schools and in the media, and they are increasingly less likely to perceive it as

FIGURE 1. INCREASE IN OCCURENCE OF THE WORD “AUTISM”



a rarity. In my view and (admittedly limited) experience, an older generation, now university teachers and administrators, is far more likely to be surprised by the presence of students with autism on campus. Professionals in honors colleges and programs need to be aware of, and prepare for, the presence of high-ability students with ASD.

AUTISM AND HONORS EDUCATION

While students with ASD can be found in all disciplines, many are attracted to STEM fields (Wei), so honors programs with sizeable numbers of students in science, mathematics, and engineering may already be enrolling substantial numbers of students with autism. Research-intensive institutions, because of their frequent STEM emphasis, may be most likely to see the numbers rise. Administrators of these programs, therefore, must be cognizant not only that these students are on campus but that they constitute an enormous variety and so may be found in colleges of business, design, and the liberal arts as well as STEM. In other words, while students with ASD are often found in STEM programs, limiting planning to STEM courses and programs is insufficient.

A first requirement for those working in honors programs is simply to recognize students with autism and investigate how to meet their needs. Such recognition should begin with the initial processes of recruitment and admission. If, for example, leadership is a key requirement for, or component of, an inclusive honors program, it should be assessed by means other than observation of posture, handshakes, or eye contact. In general, the principles of universal design are appropriate here as elsewhere, and diverse measures and methods are likeliest to appeal to neurologically diverse students.

In an attempt to gain further insight into the presence of students with ASD in the Iowa State University Honors Program, during the spring 2015 term I invited students to participate in a survey. This survey was emailed to all members of the program, inviting participation by any student at least eighteen years old who identified as being on the autism spectrum. Because the survey gave students the ability to self-identify as having ASD, and because of the difficulty of reaching students via email (our students are notorious for ignoring this medium), I make no claims regarding its statistical significance. Nonetheless, responses to the survey point to both the presence and the diversity of high-ability students with autism in our program. The survey also offers some suggestive illustrations of how autism does and does not affect the learning, ambitions, and needs of high-ability students, and it points to some potentially useful practices.

While the number of responding students was small—a total of 26 at least began the survey—given the size of our program, about 1130 students in all, I had an overall response rate of just over 2 percent. This figure is more than twice as high as one would expect from a survey of a general population as the prevalence of autism in this cohort (born about 1995) is roughly .6 to .8 percent (“Autism Spectrum Disorder”). Since not every student with autism is likely to have responded to the email, the total incidence of autism among students in our program may well be higher. Virtually all members of our honors program, and therefore all survey respondents, are of traditional college age. The participants had a median age of twenty and an expected graduation date of 2017, i.e., they were at about the end of their sophomore year.

Grades were not a problem for respondents, with a reported median GPA above 3.8; only one reported having a GPA under 3.5, the program’s minimum for students to remain in good standing. The largest proportions of respondents listed the College of Engineering (42 percent) and the College of Liberal Arts and Sciences (31 percent) as housing their primary major. This result is not surprising since these two of the institution’s six colleges enroll the most honors students overall. The College of Liberal Arts and Sciences includes several STEM departments, including mathematics, physics, chemistry, and computer science, and these majors possibly attracted students with ASD to this college, but I did not ask students to identify their specific major[s]. The College of Agriculture & Life Sciences enrolled 12 percent of respondents, followed by Human Sciences and Business at 8 percent each. No respondents listed their primary major as being in the College of Design.

The distribution of all honors students across Iowa State’s six colleges does not differ greatly from the distribution of survey respondents, although—given my vivid memory of Grandin’s plea to the engineering advisors—I was surprised that the percentage of survey respondents with a primary major in the College of Engineering was smaller than the overall percentage of honors students in engineering (42 vs. 46 percent). The share of respondents with majors in the College of Liberal Arts and Sciences was larger than its proportion of honors students overall (31 vs. 24 percent). A comparison of survey respondents compared to all honors students showed that the numbers were about the same in the Colleges of Agriculture & Life Sciences (12 vs. 14 percent), Human Sciences (8 vs. 6 percent), and Business (8 vs. 7 percent). The College of Design, which included none of the respondents’ primary majors, enrolls 3 percent of honors students overall.

While the distribution of primary colleges among the survey respondents does not greatly differ from the distribution among honors students as a whole, both differ substantially from the distribution of majors across our entire undergraduate population. The student body as a whole includes a much larger proportion of students in the colleges of Business, Design, and Human Sciences and far fewer students in the College of Engineering, for example (46 percent for honors; 26 percent for the university as a whole, according to the university's Office of Institutional Research). If this pattern appears frequently among honors programs, then we need to devote time and resources not only to the courses honors students are most likely to take but also to methods of teaching that are effective for all students, including those with ASD.

About two-thirds of the respondents reported receiving a medical diagnosis of ASD while a quarter received an educational diagnosis, a less rigorously defined category that opens the gates to early-childhood education or special education opportunities such as Headstart. Of those who reported a specific condition on the autism spectrum, the majority were diagnosed with Asperger's, the remainder with "autistic tendencies." These numbers are in keeping with the conflation, in the current *Diagnostic and Statistical Manual*, of the diagnoses of Asperger's and high-functioning autism (DSM 53). Only one survey participant reported having a learning disability in addition to ASD. That student has Attention Deficit/Hyperactivity Disorder and receives two classroom accommodations, a low-distraction room and additional time in testing. No participant reported receiving academic accommodations specifically due to autism.

Most of the survey respondents who listed their education and career goals are aiming high, as is, in my experience, typical among honors students. The survey participants plan careers in such varied fields as medicine, veterinary science, industry, and both K-12 and higher education. Most are interested in attending graduate school either immediately after college or as part of a career plan. Those who reported that they intend to earn only a bachelor's degree are majoring in aerospace engineering, dietetics, and mathematics.

As I planned this survey, I had expected to receive more responses from men than from women as the condition is found four times more often among boys than girls (DSM 57). However, nearly half the survey respondents (12 of 26) were female. This detail, while once again of no statistical significance, is arresting even anecdotally. Among students entering Iowa State in the fall 2013 semester, a greater proportion of females enrolled in honors than in the

university as a whole (roughly 57 percent female for honors as compared to 43 percent of all entering students) even though our program disproportionately attracts students in the STEM disciplines. A recent study (White et al. 8–9) suggests that there may be more female students with high-functioning autism than would be expected given the gender distribution of ASD students overall.

The surveyed students were asked to describe their academic strengths and challenges; these were volunteered by the respondents, not selected from a predetermined menu. Again, the numbers are small but suggestive. Five of the eleven respondents who listed their strengths included skill in mathematics. Other strengths reported more than once included the ability to analyze or see the big picture, persistence, being organized and motivated, being able to focus, and being generally efficient at learning. These self-identified strengths are generally in keeping with a checklist of ASD students' strengths, which include being "out-of-the-box" thinkers," generally reliable and task-oriented, with "strong attention to detail" and an "ability to maintain prolonged, intense focus on subjects of interest" (Wheeler and Chapin). To this list of skills, Wheeler and Chapin add interest-driven motivation and "excellent long-term and rote memory." As I will explain in detail below, these skills are valuable for all undergraduates, perhaps especially those in honors programs. Among the survey respondents' reported challenges were being disorganized or easily distracted and having some problems communicating (one mentioned communication with strangers in particular). Problems with procrastination and time management were also reported, and at least one student reported a strong dislike of working in groups. Group work, distractions, and time-related problems are also among Wheeler and Chapin's list of challenges faced by students with ASD; however, procrastination and disdain for group work are characteristic of many honors students, whether neuro-normal or autistic, with whom I have worked.

EFFECTIVELY TEACHING STUDENTS WITH AUTISM

If bright and ambitious students with ASD are on our campuses and will continue to arrive in increasing numbers, often enrolling in or having advanced skills in STEM disciplines, then honors educators have an obligation to optimize these students' learning experiences. What, specifically, can honors educators do for high-ability students on the autism spectrum? How can we effectively employ the principles of universal design to reach not only honors students with ASD but all students in our programs? The survey

respondents, when asked what faculty and others could do to help their learning, named several practices that are standard in universal design and that aim to increase student engagement. Their suggestions included smaller class sizes, clearly stated expectations, and professors' willingness to meet with students; as with the reported strengths and challenges, these were volunteered responses to an open-ended question. One respondent's plaintive request strongly reminded me of my years in faculty development: professors should face their students, not lecture while writing on the board. In addition to such fundamental actions, students with ASD can benefit from simple, universally designed classroom practices. Some students who have autism have difficulty focusing and thus benefit from receiving information in multiple media. They can profit from something as simple as a PowerPoint slide or note on the board with the day's goals, new terminology, or reminders of due dates. Such organizing aids clarify the day's tasks for all members of a class, those with or without attention deficits, sensory challenges, or sleep deficits. Other practices can help students with autism—and all other students—to process and clarify what they learn. A think-pair-share protocol, for example, allows students to mull over a problem or issue on their own and then discuss it in the relative privacy of pairs or small groups before sharing with the entire class ("Think-Pair-Share"). Another option employing universal design principles may be to consider online or hybrid courses when appropriate. Many honors educators prefer the interpersonal and cognitive growth experienced in intimate, face-to-face settings, but not every high-ability student will flourish in such circumstances. Depending on the specific nature of the class, so-called "flipped" classrooms, appropriately designed, can also benefit diverse groups of students.

A particularly valuable practice for students with ASD, in my view, is the assignment of specific, clearly defined roles in group work. While some students with autism will respond appropriately to a vague direction such as "Break into groups of four," others may have difficulty navigating the social complexities of this apparently simple task. For a student who cannot easily make eye contact or quickly decipher nonverbal cues, joining a group is daunting. In addition, vague or unspecified roles within the group activity, e.g., "Define the problem and decide how to split up your tasks," will leave some students with ASD—as well as a good many neuro-normal students—in the dark. In contrast, groups that have well-delineated goals as well as member roles and whose members have opportunities in the course of the assignment to perform different specific roles such as meeting chair, note-taker,

logistics chief, and so on, will optimize successful participation by students on the autism spectrum. Moreover, the cognitive differences between autistic and neuro-normal students in well-structured groups may lead to surprising insights through lateral or unorthodox thinking.

IN HONORS CLASSROOMS

Scott Robertson and Ari D. Ne’eman, educators who are themselves autistic, argue for increased services and support for the growing college population of students with ASD as well as “increased acceptance for their neurodiversity by college peers, professors, and other members of their school” (n.p.). One way to build such acceptance is via a system of peer mentoring, either mentoring by neuro-normal individuals (Adreon and Durocher 277) or by “students with ASD or related disabilities” that can “enable students with similar experiences to connect” (Nevill and While 1626). Another way to build acceptance for students with ASD is to increase others’ familiarity with the condition. When I taught a one-credit honors seminar called “Autism in Literature and Culture” nearly a decade ago, I was above all pursuing my own field and interests, but I have realized that such a course for honors students, using the children’s literature and popular culture mentioned above, artifacts of the students’ own childhood, can provide a useful means of learning and talking about autism.

In addition to accommodating the challenges of students with ASD whenever possible, educators should design options that build on these students’ often remarkable strengths. Further, some of the challenges of autism actually are strengths, as noted by Wheeler and Chapin above. For example, some people with ASD have a strong preference for routine or pattern (DSM 50). This tendency can be a great asset in fields where pattern recognition is important such as geology, biology, or computer science. Small alterations in data might be spotted most quickly by students who are sensitive to patterns or trends. Some students with ASD have acute sensitivity to sensory perceptions, a valuable skill in fields ranging from culinary science to interior design. Many students with autism have intense interests in particular fields, but what might easily be disparaged as a “fixation” (DSM 50) can also be praised as a valuable ability to concentrate. Students with ASD who have such focused interests can profit themselves and their peers in many ways, as tutors for example. At my university, such students could also lead Supplemental Instruction sections for courses with a high failure rate, such as mathematics or chemistry. Such opportunities may bolster the confidence of students with ASD, help

them practice social and interpersonal skills, and reinforce organization and clarity in their understanding of course material. Working with peers is both difficult and important for students with ASD (White et al. 3); many of these students are likely to prize the opportunity to give help as well as receive it in a peer-mentoring situation.

Another way to build on the strengths of honors students with ASD, especially but not only in STEM disciplines, is to keep in mind and consciously reinforce the student learning outcomes set by the Accreditation Board for Engineering and Technology (ABET). ABET, whose standards are crucial to any institution with an engineering program, currently articulates eleven learning outcomes, several of which are particularly suitable for honors education whether or not a student has autism. Among these outcomes are the ability to design and construct experiments, to analyze and interpret the resulting data, and to design systems, components, and processes. Since pattern analysis and other tasks are sometimes strengths for students with autism, these learning outcomes may well be easier for HFASD students to achieve than for neuro-normal students. Students with autism might have more difficulty with other outcomes, however, including functioning on multidisciplinary teams, understanding professional and ethical responsibility, and developing communication skills. Here, the standards of excellence in STEM education, especially engineering education, coincide with the challenges faced by many students, whether on the autism spectrum or not. To advance these learning goals, honors educators should develop thoughtfully designed team-based activities as well as oral or written reflection on the ethical aspects of their respective fields so that students may practice and master these more challenging skills. Because some students with ASD persist in either-or thinking, we should also insist on delaying the moment of closure on an issue or idea. Encouraging what psychologist Carol Dweck calls a “growth mindset” can be important in this regard (7). In other words, emphasizing problems and problem-solving, rather than teaching solutions, can benefit both STEM and non-STEM students as well as students with ASD and without, and it can also optimize the institution’s adherence to ABET outcomes for learning.

OUTSIDE THE CLASSROOM

Because some aspects of the honors experience are social and because students on the autism spectrum are frequently (though not always) asocial, reaching students with ASD outside the classroom is equally important. Here, the challenge of meeting the needs of all students is acute, yet honors

professionals, who may tend to be quite social, could have difficulty grasping the challenge intuitively. My survey of honors students identifying as having ASD included a drop-down menu of a variety of social events, and respondents were invited to select all that interested them. By far the most popular item selected was small, informal gatherings. These would exert relatively little pressure on largely asocial students. The next most popular choices were events specific to majors and then events specific to hobbies, especially video gaming but also card or board games. Such events naturally focus on ideas or things rather than on people, creating less stress for students who have difficulty with social or emotional interactions. Respondents also found residence hall events attractive along with live music, lectures, theater, and demonstrations of, for instance, a process or machine. Perhaps not surprisingly, dances and etiquette dinners received no support at all.

Especially in the social realm, honors professionals should reconsider practices that may inhibit or exclude participation by students with ASD. For such students, a noisy party held in a room with strobe lighting, to cite just one example, could be extremely unappealing. Variety in social options is key. One of my program's most highly successful student activities has been its Vegas-themed evenings. These events were not, as far as I know, universally designed on purpose, but they include music and dancing for those who want it, a murder mystery to solve, plenty of food, and, in a quiet area, poker and other games of chance for those who are interested. Such an event offers entertainment for a variety of students and by its very nature includes options for students with ASD. Another recent popular event was a game night, with students playing everything from Candyland to Magic: The Gathering, thus also offering multiple options to students with varied interests.

In thinking about such social events, organizers need to keep in mind that, like students everywhere, students with ASD are not all alike; they demonstrate no clear or predictable pattern of strengths and challenges, choices of majors or social activities, or types and frequencies of problems. Providing student autonomy and choices is, therefore, just as important as with any group of students. That being said, those who work with ASD students must be aware that "adolescents and adults with autism spectrum disorder are prone to anxiety and depression" (DSM 55). Any program likely to enroll students with autism should thus take care that leaders, in residence halls and elsewhere, are carefully trained in recognizing symptoms of anxiety or depression and in making appropriate referrals. Finally, honors educators need to realize and accept that HFASD students face unique and serious challenges. A

student with ASD, such as one respondent to my survey, has a problem when a professor says that learning “should be easy because you have a high GPA and can do anything.” Recognizing difficulties as well as celebrating student achievements, however small, is an important mark of respect.

Recently, as a faculty marshal at a commencement ceremony, I noticed a student who had been enrolled in one of my honors classes. He didn’t recognize me, but when his name was announced I knew he was the gifted young man with high-functioning autism I had met a few years before. He wore no high-GPA honor cords around his neck, just a plain graduation gown and mortarboard (with an orange tassel, symbol of the College of Engineering) like many others who shook the president’s hand. However, I knew that, for him, simply participating in a crowded, hectic commencement was a substantial achievement. What is more, he had earned a diploma while meeting the challenges of being one of Grandin’s “Aspies.” With thoughtful planning and openness to differences, honors educators nationwide can help many students like that young man use their valuable skills and abilities to society’s benefit.

REFERENCES

- Accreditation Board for Engineering and Technology. “Criteria for Accrediting Engineering Programs, 2015–2016.” Web. 15 May 2015.
- Adreon, Diane, and Jennifer S. Durocher. “Evaluating the College Transition Needs of Individuals with High-Functioning Autism Spectrum Disorders.” *Intervention in School and Clinic* 42.5 (2007): 271–79. Print.
- American Psychological Association. *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition. Washington, D.C.: American Psychiatric Publishing, 2013. Print.
- Association for Science in Autism Treatment (ASAT). “Early Intensive Behavioral Intervention: Outcomes for Children with Autism and Their Parents After Two Years.” Web. 1 July 2015.
- Autism Spectrum Disorder (ASD). Data and Statistics. Web. 13 May 2015.
- Belin-Blank Center, University of Iowa. *The Paradox of Giftedness and Autism: Packet of Information for Families*. Web. 15 March 2014.
- Burgstahler, Sheryl E., and Rebecca C. Cory, eds. *Universal Design in Higher Education: From Principles to Practice*. Cambridge, MA: Harvard Education Press, 2008. Print.

- Choldenko, Gennifer. *Al Capone Does My Shirts*. New York: G.P. Putnam's Sons, 2004. Print.
- "Diagnostic Criteria." Autism Spectrum Disorder (ASD). Centers for Disease Control and Prevention. Web. 28 June 2015.
- Dweck, Carol. *Mindset: The New Psychology of Success*. New York: Ballantine, 2006. Print.
- Elder, Jennifer, and Marc Thomas. *Different Like Me: My Book of Autism Heroes*. Philadelphia: Jessica Kingsley, 2005. Print.
- Grandin, Temple, with Margaret Scariano. *Emergence: Labeled Autistic*. New York: Warner Books, 1986. Print.
- Grandin, Temple. *Thinking in Pictures*. New York: Doubleday, 1995. Print.
- Haddon, Mark. *The Curious Incident of the Dog in the Night-time*. New York: Doubleday, 2003. Print.
- Hart, Juliet E., and Kelly J. Whalon. "Creating Social Opportunities for Students with Autism Spectrum Disorder in Inclusive Settings." *Intervention in School and Clinic* 46(5): 273-79. Web. 1 November 2015.
- Hedges, Peter. *What's Eating Gilbert Grape*. New York: Simon & Schuster, 1991. Print.
- Institutional Research Fact Book. Ames, IA: Iowa State University, 2014-15. Print.
- "Lines in the Sand." *House, M.D.* Fox. 26 September 2006. Television.
- McDonnell, Jane Taylor. *News from the Border*. New York: Tickner & Fields, 1993. Print.
- Moon, Elizabeth. *The Speed of Dark*. New York: Ballantine Books, 2002. Print.
- Nevill, Rose E. A., and Susan W. White. "College Students' Openness Toward Autism Spectrum Disorder: Improving Peer Acceptance." *Journal of Autism and Developmental Disorders* 41.12 (2011): 1619-28. Print.
- O'Shaughnessy, Lynn. "Is Your College Professor Autistic?" CBS News, 17 July 2009. Web. 28 June 2015.

- Pinder-Amaker, Stephanie. "Identifying the Unmet Needs of College Students on the Autism Spectrum." *Harvard Review of Psychiatry* 22.2 (2014): 125–137. Print.
- "Probability." *Law & Order: Criminal Intent*. NBC. 16 February 2003. Television.
- Rain Man*. Dir. Barry Levinson. Santa Monica, CA: MGM/UA Home Video, 1997. VHS.
- Robertson, Scott M., and Ari D. Ne'eman. "Autistic Acceptance, the College Campus, and Technology: Growth of Neurodiversity in Society and Academia." *Disability Studies Quarterly* 28.4 (2008). Web. 17 August 2015.
- Rodowsky, Colby F. *Clay*. New York: Farrar, Straus & Giroux, 2001. Print.
- Rutter, Michael L. "Progress in Understanding Autism: 2007–2010." *Journal of Autism and Developmental Disorders* 41.4 (2011): 395–404. Print.
- Temple Grandin*. Dir. Mick Jackson. Burbank, Calif.: Warner Home Video, 2010. DVD.
- "Think-Pair-Share." Starting Point, Science Education Resource Center. Web. 23 December 2015.
- Wei, Xin, et al. "Science, Technology, Engineering, and Mathematics (STEM) Participation Among College Students with an Autism Spectrum Disorder." *Journal of Autism and Developmental Disorders* 43 (2013): 1539–46. Print.
- What's Eating Gilbert Grape*. Dir. Lasse Hallström. Hollywood, CA: Paramount Pictures, 2006. DVD.
- Wheeler, Marci, and Brenda Chapin. "Academic Supports for College Students with an Autism Spectrum Disorder: An Overview." Indiana Resource Center for Autism. Web. 30 December 2015.
- White, Susan W., Thomas H. Ollendick, and Bethany C. Bray. "College Students on the Autism Spectrum: Prevalence and Associated Problems." *Autism* 15 (2011): 683–701. Print.

The author may be contacted at

syager@iastate.edu.