

ATTENDING

Ruminations on the medical life



As a teenager, Grandin didn't want to visit her aunt's ranch. But her mother insisted, and that visit awakened her fascination with animals.

GOOD, OLD-FASHIONED INTERVENTIONS

AT PITT, TEMPLE GRANDIN'S WISHES ARE COMING TRUE

BY JUSTIN HOPPER

In her black embroidered cowboy shirt and white scarf looped like a bolo tie, Temple Grandin's onstage appearance matches her speech: Equal parts severity and unadorned approachability, all couched in an almost impossible confidence. Introduced to the standing-room-only audience at Western Psychiatric Institute and Clinic's auditorium this winter, Grandin doesn't acknowledge the gathered crowd before launching into her subject matter.

"I've got some real concerns" about autism care in America, says Grandin. "I travel all around the country, and it's a *wasteland*. You get down to the Southeastern United States, they've got kids zapped up on so many drugs, it's disgusting..."

In her trademark gruff, straight-to-the-point address, Grandin makes a point that most scientists would agree with: that early diagnosis of autism and caregivers educated in the disorder are worth more than a cabinet full of medication.

Grandin, who has a PhD in animal sciences, is arguably the world's best-known advocate for people with autism. She is the author of more than a half-dozen books on the subject; in 2010, Grandin was named one of the 100 most influential people in the world by *Time*. She thinks there's a problem with the way the disorder is diagnosed and treated in the United States.

"A lot of mild Asperger's [syndrome]

cases are going to get shunted off into these other disorders" under potential new diagnostic guidelines, says Grandin. She believes that will put many at risk of being further distanced from the kinds of therapeutic interventions that seem to work.

Grandin, herself, was a child with autism at a time when diagnosis and treatment were rudimentary at best. She is 64. As late as the 1970s, autism was regularly associated with—and frequently misdiagnosed as—schizophrenia. And yet she has risen to the top of her profession as a designer and consultant to the American animal industry. Half the cattle sent to processing plants in North America are handled with equipment Grandin designed.

Grandin has no doubt as to what allowed her to thrive: the early intervention of her

Psychiatric Institute and Clinic's audience of autism specialists, psychiatrists, scientists, and educators, Grandin peppers her talk with *Leave It to Beaver*-isms, referring to people who talk a lot as "yak-yaks" and visibly perking up when she brings up childhood shenanigans with her cousin or her participation in a model-rocket club.

But to Grandin, the stricter, more manners-based culture of the Eisenhower era is more than just nostalgia. It's therapy.

"This is where my 1950s up-bringing helped me" as a child with autism in Massachusetts, says Grandin, noting that her mother wouldn't allow her to shy away from conventional New England life. "Turn-taking games and conversational board games. Having to be on time and do activities I didn't particularly like, like going to church—sitting

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persevering mother and a series of other mentors. Research at the University of Pittsburgh is helping to build an intervention model that sounds a lot like Grandin's story.

As a child growing up in the 1950s, Grandin was reared in an environment that she thinks was just what a kid with autism needs. And there's still a bit of the '50s left in her. Speaking to the Western

there, squirming. Saying please and thank you ... and consistent discipline between home and school.

"I had extremely good early intervention. And by the time I was 2-and-a-half years old, I was in intensive speech therapy. When I was 3, my mother hired a nanny who spent hours playing turn-taking games. You've gotta teach these kids how to take turns. And one of the things about being autistic is you've got to

stretch the kid to learn new skills. ... When I was 15, I was afraid to go to my aunt's ranch, but my mother wasn't going to let me *not* go: The choice was one week or all summer."

That trip to the ranch turned out to be a turning point, sparking Grandin's lifelong fascination with animals (she is a professor of animal sciences at Colorado State University), her involvement in advocacy for the humane treatment of animals, and an extraordinary career in the cattle industry. To Grandin, such very basic interventions—which stretch autistic children to give them

with her own specific example.

"I realized my thinking was different when I asked people to think about a church steeple," says Grandin. "I was shocked to find out that most people had this vague, generalized image of a church steeple. I only see specific ones. They flash up like a Google [image search]—there is no generic steeple."

Minshew's research also shows that people with autism have difficulty with another form of generalization, categorizing objects. Knowing these two things, explains Minshew, sheds light on how best to help people with

attention and taking turns. After six months, the groups are expanded to four pairs each and the participants engage in a curriculum based on social wisdom and those difficult automatic-learning issues.

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"How many people can benefit from being more socially skilled?" asks Minshew. "From being a better communicator, a better problem solver, from being more flex-

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a broad range of experiences and teach them the social skills necessary for community and workplace communication—are vital. They allow children a chance to find a calling.

Nancy Minshew, an MD and Pitt professor of psychiatry and neurology, is program director of the Center for Excellence in Autism Research (CeFAR) at the University of Pittsburgh. Minshew has been a prolific investigator of the neurobiological roots of autism. She's also been instrumental in contributing to our understanding of how people with autism see the world and why they see it that way.

By scanning the brains of people with and without autism disorders (including Grandin's) while they are given a variety of questions to process, Minshew and colleagues—notably CMU professors Marcel Just and Marlene Behrmann, who, like Minshew, are members of Pitt and Carnegie Mellon University's Center for the Neural Basis of Cognition—have shown that in people with autism spectrum disorders similar to Grandin's, thought is driven from what Grandin calls the "bottom up." In other words, rather than starting with broad concepts, Grandin's thinking begins with visual imagery and specific examples. In her Pitt talk, Grandin explained this thought process

autism learn and communicate more effectively in our society.

"You can't think other people understand what you do just because they have all the same facts," says Minshew. "We know that people with autism have problems with automatic processing. There's a lot we learn without realizing we're learning it. [Most of us] know that it's not polite to say to a fat person, 'Why are you so fat?' Or that you don't have to tell the blind person he's blind—because he already knows."

Grandin underscores that this kind of learning isn't automatic in the autistic mind: Just because you don't cross against the light at *this* street corner doesn't necessarily mean that you don't do so at *another* corner.

This sort of basic socialization and understanding of how the world works is a lot like what Grandin gained from her mother's early efforts. And it's similar to the experience that CeFAR is creating for people with autism in the Perspectives Program, an experimental intervention effort based on decades of research and led by Pitt's Shaun Eack, PhD assistant professor of social work and psychiatry.

In the National Institutes of Health-funded program, people 16 to 40 years old with autism begin by working in pairs on activities that develop skills such as paying

attention and taking turns. After six months, the groups are expanded to four pairs each and the participants engage in a curriculum based on social wisdom and those difficult automatic-learning issues. The goal, Minshew says, is to create an intervention method that can be used in the everyday classroom. And not just for students with autism. "How many people can benefit from being more socially skilled?" asks Minshew. "From being a better communicator, a better problem solver, from being more flex- ible—able to look at things in different ways? Who's *not* going to benefit? There's a spectrum [of social abilities] amongst the nonautistic population as well, and 50 to 70 percent of kids can benefit from this type of interaction. If we can train people to [conduct this intervention method] outside of this institution, any teacher who's trained in it will automatically begin to do this in [the] classroom. And perhaps they'll notice that student who isn't quite as able."

The heart of Grandin's talk is simple: People with autism can make important contributions to society if only they are given the opportunity to discover their potential. And that means helping them to engage in the world, rather than hide behind their disorder.

"Too many autistic kids are getting fixated on their own autism," says Grandin. "I don't like it when I'm at a book signing, and a 9-year-old wants to talk about his autism. I'd rather have him talk to me about a science project or that he likes history. People ask me, *If I could snap my fingers, would I want to not be autistic?* No, I like the way I think. But on the other hand, being a college professor and a cattle specialist, that comes first. Autism comes second. I don't let autism take over." ■