

Column: "Autism: The Way I See It"  
by Temple Grandin

## Can My Adolescent Drive a Car?



Many parents ask me about people on the autism spectrum's ability to drive a car. I have been driving since I was 18. I learned on the dirt roads at my aunt's ranch. Everyday for an entire summer, I drove her old pickup truck three miles to the mailbox and back. The truck had a manual gear shift and it would stall unless the clutch was worked just right. Because of the difficult clutch, for the first few weeks my aunt operated the clutch and I sat beside her, learning to steer. After I learned steering, it took me several weeks to master the clutch. Aunt Ann made sure I had completely mastered steering, braking and changing gears before she let me drive the truck on a paved road with traffic.

The main difference between a typical adolescent and a person with autism is that more time may be required to master the skills involved in driving a car, and these skills may need to be learned one piece at a time. For instance, I didn't drive on a freeway until I was completely comfortable with slower traffic. The several months of driving in the safe, dirt roads on the farm provided the extra time I needed to learn safely.

When a motor skill, such as driving, is being learned, all people have to consciously think about the parts involved, such as steering or operating the clutch. During this phase of motor learning the brain's frontal cortex is very active. When a skill such as driving or steering becomes fully learned, the person no longer has to think about performing the sequential steps involved. Steering the car becomes automatic and conscious thinking about how to do it is no longer required. At this point, the frontal cortex is no longer activated. The motor cortex takes over when a skill is fully learned and the skill is executed unconsciously.

I would recommend that the process of steering, braking and otherwise operating a car be fully learned to the "motor automatic" stage before permitting your son or daughter to drive in any amount of traffic, or on a freeway. This helps solve the multitasking requirements involved with driving and frees up the frontal cortex to concentrate on traffic, rather than the operation of the car itself.

If a child can ride a bike safely and reliably obey the traffic rules, he or she can probably drive a car. When I was ten years old, I rode my bike everywhere and always obeyed the rules.

Likewise, to be able to drive a car, a person must already know how to steer a bike, golf cart,

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trike, electric wheelchair or a toy vehicle. Parents interested in teaching their child to drive a car can plan ahead while the child is still younger, making sure the child first masters some of these skills on other types of vehicles.

Another critical issue to consider is the maturity level of the individual. Does the boy or girl have enough mature judgment to drive a car? Are they careful to obey rules given them? How do they react under pressure? These factors need to be assessed on a case by case basis to determine if an adolescent is ready to tackle driving a car. I recommend allowing the person on the spectrum extra time to learn the basic operation of the car and the individual skills involved in driving. After each driving skill becomes full learned and integrated with the other skills, they can slowly progress to driving on roads with more and more traffic, higher speeds, more frequent stops or areas where there is a greater chance for different events to occur (for instance, driving in neighborhoods with lots of children or a high concentration of business establishments with cars pulling in and out of parking spaces regularly). Finally, night time driving should be avoided until the adolescent is very comfortable with all aspects of day time driving.

I think that it is more a question of *Is my child READY to drive a car?* than *CAN my child drive a car?* with people on the autism spectrum. The act of driving a car can be broken down into small, manageable pieces for instruction. The motor skills can be taught and with enough practice, can be learned. However, driving is a serious matter, one that involves more than just learned skills. Each parent needs to decide whether or not their son or daughter has the maturity and good judgment required to allow them to get behind the wheel of a car. In this regard, the parents' decision is no different for a person on the spectrum than it would be for a typical child.

## **BIO**

Temple Grandin is the most noted high-functioning person with autism in the world today. She is the author of two books on autism: *Emergence: Labeled Autistic* (1986) and *Thinking in Pictures* (1995), and is coauthor with Kate Duffy of the book, *Developing Talents: Careers for Individuals with Asperger Syndrome and High-Functioning Autism* (2004), and of *Unwritten Rules of Social Relationships: Decoding Social Mysteries Through the Unique Perspectives of Autism* (2005). In her "day job" she specializes in designing livestock handling systems. Temple devotes much of her time to increasing awareness of autism through extensive speaking engagements. She makes her home in Fort Collins, Colorado. For autism resources by Temple Grandin visit [www.templegrandin.com](http://www.templegrandin.com)

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