

Introducing
Coloring
Social Stories:
Discovering
Uncharted
Topics and
Possibilities

A new kind of Social Story
that harnesses the benefits of coloring.
It's changing how we WRITE.

Carol's Club CAROL GRAY SOCIAL STORIES

Custom Social Stories™ Resources Created by Carol Gray for Members - February 12, 2019

The Project

While working on the two-part LINES Project (posted in the Clubhouse on December 31, 2018 - January 15, 2019), I came across information on the positive impact of coloring. Research reveals that coloring quiets the brain's amygdala (responsible for detecting threats and our "fight or flight" response) and stimulates the cerebral cortex (where most information is processed). Considering the amygdala and cerebral cortex are two areas of the brain that are of interest in autism research, I began to wonder if we might be able to enhance the impact of Social Stories with

the use of illustrations that encourage an Audience to color. I continued researching the idea, purchased a set of colored pencils, and began coloring. In the process, I have developed a theory that yes, coloring may enhance many Social Stories, especially those addressing anxiety producing topics. The unexpected discovery, though, is that coloring may introduce us to previously unaddressed topics and change how we write Social Stories in the future.



Above: Joanna at our cottage in August, 2018.

Activities like coloring have always been a great escape for me, a way to happily lose myself and absorb an entire afternoon. If someone joins me, the conversation is likely to head into uncharted territory. My daughter, Joanna, comes to visit at our cottage in the summer. We get out the paints to create new art for the cottage walls and end up having conversations with fresh directions. It's as if the painting opens new windows in our exchange of ideas.

According to the research, it does.

The Positive Impact of Coloring

To stay healthy, eat well, exercise, get plenty of rest, and color. Coloring is beneficial to children and adults alike. One theory is that the repetitive, predictable motion of coloring quiets the amygdala, settles nerves and works to restore calm and contentment. Getting negative emotion out of the way makes it easier to focus our attention, solve problems, and think creatively. When we color, "...our minds are engaged yet free to roam... unexpected associations and ideas pop up, unleashing inner creative genius" Chen (no date). Coloring is "...great for your mental, emotional, and intellectual health" (Martinez, 2015).

I discovered an online article, "10 Benefits of Coloring Pages for Children" (Color Psychology, no date). The list includes many readiness skills that we might expect, for example, self-expression, eye-hand coordination, color recognition and identification, and visual-spatial skills. Some of the other positive outcomes are a little more surprising and include therapeutic benefits like improved self-esteem, more confidence, and reduced stress.

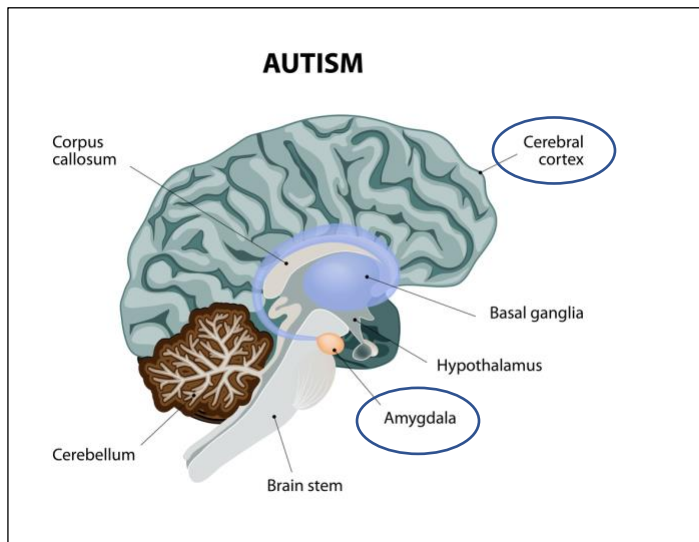
Whenever we color for fun, whatever happens on that paper is our choice. A sense of control without the threat of an alternate opinion, we're the boss of the colored pencils. Coloring is like these lyrics from "Welcome to My Morning:"



*Welcome to my morning
Welcome to my day
I'm the one responsible
I made it just this way
To make myself some pictures
See what they might bring
I think I made it perfectly
I wouldn't change a thing*

(Denver, 1974).

Autism, the Amygdala, and the Cerebral Cortex



On the left is a diagram of areas of the brain that, as mentioned, are of interest in autism research. I've highlighted the amygdala and cerebral cortex, also frequently mentioned in the research on the impact of coloring on the brain.

The amygdala detects danger, and as a result is linked to survival. According to Halladay, Avino, & Schumann (2018), "Many neuroscientists have speculated that

abnormal activity of the amygdala may lead to anxiety or a sense of fear when there is no danger present." With the prevalence of anxiety issues among children, adolescents, and adults with autism "...it should not be surprising that there is substantial evidence that the structure and function of the amygdala in autism is altered." Writing as a layman in this area, the cerebral cortex is that wrinkly part of the brain. The wrinkles create more surface area, which is good because the cerebral cortex has a large role in perception, language, information processing, and much more. Understanding that coloring quiets the amygdala, and stimulates the cerebral cortex, leads me to wonder if coloring in a Social Story may serve as an "antidote" with topics rooted in anxiety and apprehension.

Ideas to Encourage Coloring

Some people like to draw and color; others do not. It's human to delay or avoid activities that are consistently difficult. It's especially understandable for a child with an autism diagnosis where extraordinary effort is often needed to complete each day. For Social Stories Authors, developing a Social Story with pages to color, only to have the Audience reject it, is frustrating as well.

For those who are reluctant to pick up a colored pencil and color, Figure 1 (below) lists ideas to encourage their participation. Many of them are common parenting practices. Providing crayons and markers from an early age, with parents, grandparents, brothers, sisters, and uncles modeling their use is a great start. Coloring the illustrations of a few Stories yourself, and gradually leaving small “doable” blank areas, may bring a potentially overwhelming task

Figure 1: Eight ideas to encourage coloring

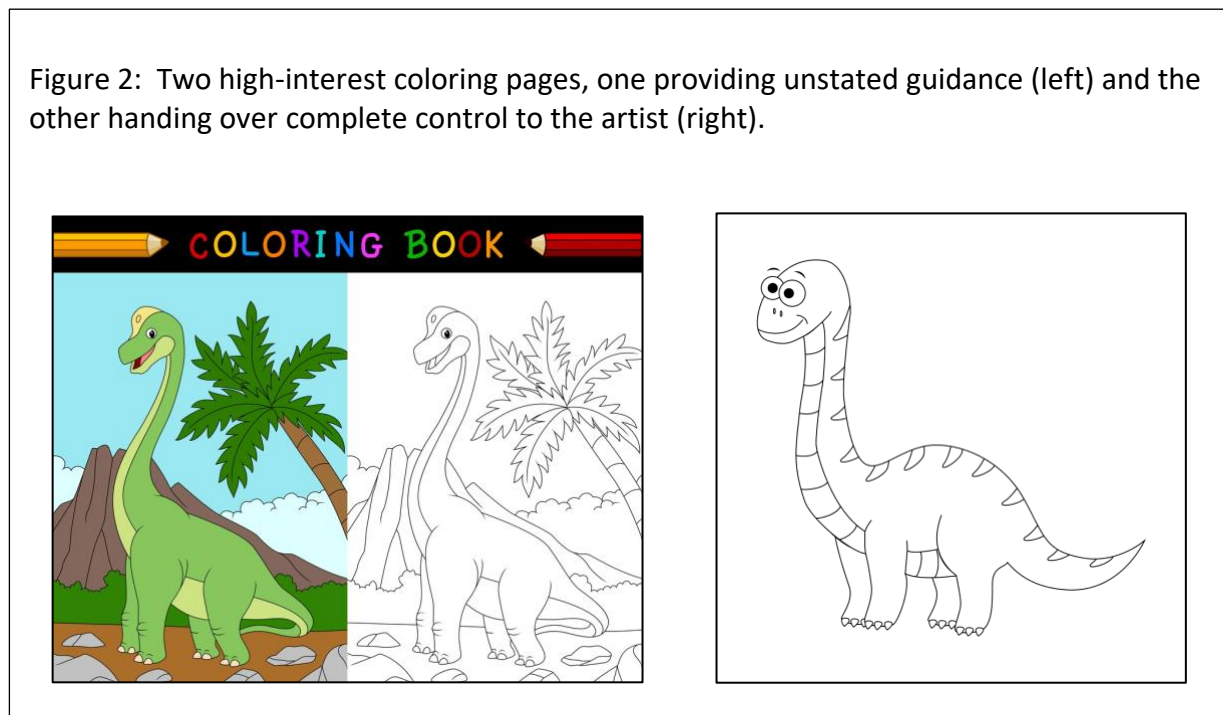


1. Start young
2. Model coloring
3. Create a few Stories and color the pictures yourself
4. Begin with high interest subjects
5. Start simple with brief coloring opportunities
6. Adapt materials to ability
7. Stories with unfinished illustrations
8. A Social Story to describe the process, emphasizing child's choice and control
8. Begin with high interest subjects



within a child's reach. It may be helpful to write a Social Story about coloring that emphasizes the choices and control that lie strictly with the artist. Figure 2 (below) demonstrates how a coloring page may guide a child who needs a model, versus an open-ended coloring page for a child ready to take full charge of the outcome.

Figure 2: Two high-interest coloring pages, one providing unstated guidance (left) and the other handing over complete control to the artist (right).



Keep in mind that a child, adolescent, or adult with autism may have unique responses to color. Children with autism may be more sensitive to color than their peers and may demonstrate atypical color preferences. According to Turner (2017):

This heightened sense of color comes as no surprise, considering research which suggests that people diagnosed with ASD interpret sensory experiences with greater intensity than their neuro-ordinary peers. In other words, for people with autism, sounds are louder, touch is more acute, smells are stronger, lights are more glaring, and colors are more colorful.” (no page number)

A study with boys 7-14 years of age reveals that those with autism prefer greens and browns, and are less likely to prefer yellow, than their typically developing peers (Grandgeorge & Masataka, 2016). A little later, I'll discuss whether there may be times when a Social Story Author may want to guide or influence color in a given illustration.

