

Sugar and Spice – Bullying Revisited

By Horacio Sanchez

The scientific explanation of the famous nursery rhyme boys are made of “frogs and snails and puppy-dog tails” is due to testosterone and a larger amygdala. Testosterone is the hormone that makes boys more physical, aggressive, and angry. The larger amygdala is responsible for increased competitiveness, aggression, and impulsive behaviors. This is why boys are more prone to lash out physically and engage in more physical forms of bullying. However, girls are made of “sugar and spice and everything nice” is explained by estrogen and a smaller amygdala. Estrogen is a peace loving drug that increases communication and empathy along with a smaller amygdala which allows girls to remain thinking while emotional. Therefore, bullying practices commonly employed by girls often are more thoughtful and calculating.

Although the physical form of bullying is on the rise among girls, it still makes up a significantly lower ratio of female bullying practices. The increase in physical acts of bullying by girls can be attributed to increased level of testosterone. Congenital Adrenal Hyperplasia (CAH) causes female fetuses to produce larger amounts of testosterone. Girls that produce higher levels of testosterone are often the tomboys who usually grow out of more masculine behaviors after puberty. However, many researchers think that CAH in conjunction with increased levels of testosterone in food, generations of women in the workforce competing with males, and access to more physical sports have all attributed to a small portion of girls having high enough testosterone levels to behave like “frogs, snails, and puppy-dog tails.”



Far more common and maybe even more sinister is the female bully who is calculating and cunning. Not driven by the need to be physically impulsive; for girls bullying takes on a common practice called ostracizing. School climate assessment data is quite definitive. High school cliques commonly target specific individuals that the group will not interact with. However, this practice is now found in middle schools and surprisingly in elementary schools. A consistent pattern persists with a majority of these younger bullies; they often have older sisters who engage in the practice. Although many of these younger bullies admit to learning about the practice from watching their older sister, they claim that they have refined their skills through exposure to television shows designed to educate on the topic on such channels as Disney and Nickelodeon. This is

why Williams, a psychologist conducting extensive study on ostracizing, states that the practice is difficult to extinguish because when educating some individuals on the negative impact of the behavior it often teaches and empowers perpetrators engaged in the action.

It is now known that a simple act of ostracizing diminishes self esteem, feelings of loss of control, sadness, and even anger (Williams, Cheung, and Choi 2000). Even more damaging is the fact that individuals who have experiences being ostracized are more prone to going along with the behaviors of the majority even when they know that it is wrong just to avoid experiencing the emotional impact of being ostracized again (Cheung and Choi 2000). This explains why so many healthy children who would normally not engage in bullying will join in the practice not to be excluded from the group.

Certain students repeatedly ostracized will take dramatic measures to put an end to the hurt that being alienated can cause. Some are capable of lashing out in attempts to physically or emotionally hurt those who have caused them such pain while others have



committed suicide to stop the pain (Williams and Wesselmann 2010). The pain of being ostracized is real. MRIs indicated that the action triggers activity in the dorsal anterior cingulate cortex, a region of the brain

associated with emotional and physical pain. For some individuals being ostracized is difficult to overcome. Individuals prone to anxiety or depression took significantly longer to recover from being ostracized. Repetitive exposure could trigger a range of emotional and physical problems.

Schools tend to focus on the more overt practices of bullying and overlook the more calculated practice of ostracizing because it is often perpetrated by some of the best and the brightest girls. Some recent data on the lower levels of empathy by school age children is revealing. The female brain is hardwired to be more alerted to nonverbal cues. This sensitivity is key in experiencing the feelings of empathy. It might be the lowering of empathy that is accounting for so many girls not being more sensitive to the impact their behaviors are having on their peers. It is time to recognize that

exclusionary practices are just as severe or even more harmful as being punched in the mouth by someone made of “frogs and snails and puppy-dog tails.”

The primary cause of bullying in both boy and girls is a lower tolerance for those who they perceive as different. The amygdala has an increased reaction to differences but for some individuals a more heightened response will be triggered resulting in negative behaviors. These heightened responses in boys often produce acts of aggression toward individuals they believe are the most vulnerable. The increased reactions in girls often produce a desire to isolate those they perceive different from their circle of friends. Ultimately, both boys and girls who experience a stronger chemical reaction to individuals perceived to be different are at greater risk for inappropriate social behavior.

One of the most effective ways to reduce a heightened response in the amygdala is by forcing it to focus on things individuals share in common. The amygdala is aroused by differences and eased by commonalities. When left to its own devices, the amygdala will be drawn to that which is the most familiar or common. This is why individuals tend to develop associations to others who they have things in common with, and why in schools there are cliques between students and even adults. This is even more crucial for the teenage brain that is in a state of flux and seeks security in the presence of individuals he or she is compatible with. However, when under stress the amygdala will become irritated by that which is different. Teachers need to intercede before both the male and female bully has experienced a heightened response to those who are different than them.

Research has shown that by having students learn that they share things in common, no matter how trivial, calms the amygdala and promotes healthier peer interactions. Classes should engage in games and activities that help students become aware that they all share things in common no matter how different they might appear to be. This is also an effective pre-step to take before educating and counseling on bullying; it reduces the probabilities that what is taught will be utilized in a negative manner.