

The science behind **THE CHILD CODE**:

- **The basis of how we think about parenting is flawed science:** Most of what we are told about parenting comes from family studies finding correlations between parenting practices and children's behavior. These studies have been misinterpreted to mean that parenting shapes child behavior, but it is equally possible that the child's behavior is driving the parenting, or that parents and children are correlated simply due to their shared genes. Because of these fundamental flaws, most family studies actually tell us very little about the effects of parenting.
- **Genes influence everything:** Virtually all outcomes that have been studied using twin or adoption designs — ranging from alcohol problems to infant shyness— have yielded unambiguous evidence of genetic effects. Children resemble their biological parents for all kinds of behavioral outcomes, even when they aren't raised by them!
- **But, there's no one gene for any behavior:** complex behaviors, ranging from intelligence to personality, are influenced by lots of genes— probably hundreds or thousands of them. So, for example, your child's genetic tendency toward anxiety (or impulsivity, or fear, or any other behavior) is a product of which variants they carry across all of those thousands of genes that influence anxiety. Some genetic variants increase risk, others decrease risk, and where your child naturally falls on each behavioral dimension is the sum of all the risk and protective genes they carry that influence that behavior.
- **Temperaments are stable throughout life:** in studies that follow kids across time, fear in infants predicted fear at seven years of age. Highly sociable babies grow up to be highly sociable adolescents. Identical twins can be separated at birth and raised by different families and still turn out to be very similar.
- **Children usually resemble parents (but not always!):** Because the 50 percent of our parents' genetic variants we inherit is random, it can mean that, by chance, a child could get most of their tall parent's short genes. It isn't *likely*, since a tall parent has more tall genes than short ones, but it is *possible*. Two smart parents can have an average-intelligence child. Two extraverts can have an introvert.
- **The parent's behaviors matter, too:** *Goodness of Fit* refers to the match between children and their parents' dispositions, as well as the child's environment more broadly, and is critical to having a happy, low-stress home life. When there is natural Goodness of Fit with their environment, children thrive, and parents generally don't recognize the underlying reason. Parenting their child simply feels "easy." But when parents and children have different natural dispositions, especially when parents aren't consciously aware of what's going on, it can lead to increased parent-child friction and a lot of frustration for all concerned.

- **Environmental experiences can influence whether genes get turned on or off:** Epigenetics is related to gene-environment interaction. It refers to the fact that environments can influence the expression of genes at the molecular level. New research suggests that stressful environments can have adverse epigenetic effects, activating genes involved in stress response, and leading to a cascade of adverse physical, behavioral, and psychological outcomes. Super-parenting our kids won't shape them in the way we might have imagined, but stressful and traumatic experiences *can* hurt our children and impede their ability to reach their potential.
- **Parenting looks different to everyone (literally):** dispositions influence the way *our children* view our parenting, the way *we view ourselves* as parents, the way *we view our partner's* parenting, and the way *our partners view* our parenting. Our unique genetic dispositions also influence the way we perceive our children's behavior and how problematic, or not, we view certain behaviors.
- **No behavior is set in stone:** Understanding your child's natural dispositions can help you as a parent, but you want to be careful not to fall into a fixed mindset ("My child is high on Emotionality, so they will never change and I'm doomed to a lifetime of fits."). *Nothing about the way genes work indicates this is true.* Yes, predispositions influence our children's behavior in profound ways, and this can allow us to anticipate challenges and help our children work through them. It can also help us recognize and build on their natural strengths. Understanding our children can help *us* help *them* to grow.
- **Not Nature or Nurture, but both:** Gene-environment interaction means that as parents we can help tune up or tune down certain genetic tendencies, like the volume knob on a radio. Our children's genes lay the foundation for their dispositions, and they influence the way our children move through the world, but their genes *do not* write their destiny. By working with your child's genetic disposition, you can nudge them toward their best possible self, and help them to control their natural tendencies that may lead them into trouble.