

Reflecting on the heredity-environment correlations and the epigenetic view described in this chapter yields a view of the intergenerational transmission of social problems (e.g., poverty) and disease (e.g., addiction) that is more sophisticated than conventional or popular assumptions might suggest. Because a person's genes may actively or passively impact the environments to which they are exposed, and, conversely, because the environment influences the expression of particular genes, development can be conceptualized as a series of reciprocal gene-environment interactions that occur throughout the life course. This complex process creates a latent pathway through which the problems mentioned above *might* be transmitted from one generation to the next. The implications of this are both positive and negative. The development of an addiction in a child of alcoholic parents is *not* a certainty; while studies indicate that as many 80% of these children possess the genetic predisposition to develop alcoholism, environmental factors may significantly influence whether or not these genes are activated. In other words, prevention programs that maximize environmental "protective factors" might be effective for this population. On the other hand, the bidirectional nature of gene-environment interactions also means that poor children who are often disproportionately exposed to environmental hazards are more likely than non-exposed children to manifest characteristics which limit their access to certain resources and increase their lifetime risk of developmental problems, thereby making the transmission of poverty from one generation to the next more probable.

I am glad that you thought about the material in terms of your future career or profession. This is what I really want you to do. Thank you for your reflection. Other things I found interesting in this chapter included the discussion of prenatal care and the importance of recognizing and respecting cultural beliefs about pregnancy.

It is interesting to find that there are huge cultural differences in a lot of issues, right. This discussion was particularly relevant in light of my interest in working with and

advocating for pregnant and postpartum women facing substance abuse and mental health

problems I hope any knowledge and information from this class can help you with your

profession or career, which means a lot to me. In addition, I experienced having a nurse-midwife

throughout my pregnancy. This chapter also highlighted for me the potential impact of current

U.S. social policies surrounding maternity leave (and others) on child development Yes, we have

to be able to change a lot of things related to this issue.

Kimberly Brush

Chapter 2 Response

Genetics is a subject that I am fascinated by, and yet know very little about. Throughout this chapter I kept asking myself how the characteristics of our current generation will impact our genetic makeup in the future We will talk about this for the Intelligence chapter later. Will it even have an impact? Will American obesity and the tendency of Americans today to either have children during adolescence or wait until their late thirties and beyond change the future of Americans generations from now? Or will we self correct before permanent damage is done? If it does have an impact, are our glutinous and selfish ways going to put our nation at a significant disadvantage in the future? Will survival of the fittest wipe us out, in a manner of speaking? I hope you can answer all of the questions here at the end of the semester. The diseases associated with obesity are deadly, and by waiting to have children until later in life, parents are risking their children's development and even survival. Already, childhood obesity is more prevalent in this country than it ever was before and with it has come an increase in the number of juvenile illnesses related to obesity. The book pointed out that the mortality rate of babies born to teenagers was double that of those born to mothers in their twenties. And for those mothers who are older, Down's syndrome and fetal death are far more likely for their infants than when the mother is in her twenties or early thirties. If these trends continue, what will Americans look like in the future? Will America be able to hold its place as a leader in the industrialized world? You seem to think about this topic a lot in depth. I think that because you are the mother of your children, you think about the issues in chapter II even more seriously. Don't you think?

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February 4, 2009
Reading Log #2

The overall feeling I got from this weeks reading was a sense of my lack of control when it comes to my own life and possible future family. This chapter went into detail about what a man and woman should and should not do when pregnant. It listed all the things they could control such as smoking, alcohol and drug intake etc, but there are so many things that cannot be controlled. That is the part I am overwhelmed by. I like to be in control. Knowing that I could have a child with one of the listed birth defects, not because I did anything wrong, but because of the genes my husband or I have scares me. It's the same idea as nature v. nurture. I can plan for a child and read all the parenting books I can find but the bottom line is that there are many circumstances I cannot control in my child's life. More and more I have come to the conclusion that I just do not want to have kids. No. For the sake of the future world, we need more babies from a person like you who are intelligent and beautiful. The book does not try to scare you, it just tries to give you a lot of information so that you can be a little bit more cautious and you can help your clients be cautious too. Obviously I am not at a point where I would be ready to have kids but since there is so much unknown it has become an area I don't even want to venture into.

One thing in the chapter that affects my view toward counseling and human beings is the section on genetic abnormalities. I recognize my fear about having a child with an abnormality but my selfishness does not go past me. I need to think of how the children I will be counseling feel. How they unjustly get teased or looked at as different based upon nothing they or their parents can control. I think the hardest part of growing up and being "different" not just because of a genetic disease, there are so many children who are teased only because they look different from the majority is that other people are too self-absorbed to understand the effects a genetic disease can have on you. I took a disabilities class in college and one day we each had a different

physical impairment. Mine was that I did not have a right arm. It took 10x longer to do even the simplest tasks such as tie my shoe. What I need to focus on is helping students understand just how difficult it is to be born with a disease that you cannot control. The bottom line is that we are all human beings and should not be treated any differently based upon things out of our control. I totally agree with you. As a future counselor, you can do something about this in the future, I believe.

Alex Coppelman
Human Growth and Development
Feb. 4, 2009
Reflection on Ch. 2

As I continue to read our text, the theme of socioeconomic status and poverty continue to stand out. Chapter two focuses on the earliest stage of development, the prenatal stage. Extensive research has shown that development, or lack of development during this stage can affect a person for their entire life. Socioeconomic status is correlated with many of the factors that influence development during the prenatal stage. Parents who come from poor backgrounds are less likely to receive adequate prenatal care or maintain a nutritionally adequate diet. Additionally, there is a higher incidence of teenage pregnancy and alcohol and drug use by the father before conception and the mother while she is pregnant Yes, the issues you are interested in right now are very important task that we have to solve in the near future. I do think that as a counselor, you can do a lot to solve this problem too.

All of these factors can have severe and negative consequences on the development of the fetus. There is a much higher rate of miscarriage and Sudden Infant Death Syndrome. These babies are more likely to be born underweight and/or have mental, physical, and developmental disorders. This places further financial and emotional stress on impoverished parents. Medical care is much more expensive for children with these types of disorders, as they may require additional doctor visits and expensive medication. Emotionally, raising a child with developmental or behavioral issues can be extremely taxing. Unfortunately, these types of children require the large amounts of resources, which are often unavailable. Having children that need special attention makes it even harder for parents to exit the cycle of generational poverty Yes.

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because of this **cycle of generational poverty in Korea when I was a school teacher, I**
decided to become a counselor. I am glad that we are on the same page. ☺ Thank
you for your good reflection!

Amanda Deverich

Where is the mother? It is understandable that a book on life-span development should begin at the beginning of life and focus on the experience of the individual that is doing the growing. However, birth is such a powerful biological, psychological and emotional experience for the mother (and father?) that it is strikingly omitted in these pages. A brief skim of later pages did not find a decent examination of the experience in the life-cycle or other discussions.

The book focuses on the biomedical aspects of the mother ie age and prenatal care. It also has a small section on bonding and another on the cultural context of birth, but not very much on the deep and moving experience of the mother. As a counselor and mother myself, I know how murky these waters are. In one way it is a benefit that the text refrained from laying on too many “shoulds” in the experience. Experts often like to do this with strict advice to breast feed or place the baby on the mother’s tummy immediately after birth. However, not addressing the intense psychological experience of the mother is a gaping hole for students who have not yet experienced birth or those who have but are limited to one perspective I 100% agree with you.

Pressing questions to explore in this area are focused on cultural context. What is the cultural expectation? Today women give birth in a hospital and the rise in Cesarean section is causing debate today. Is it necessary? Is it acceptable to have the procedure for convenience sake? I know women who have actually chosen this route. It is not just the doctors. What if a woman chooses not to breast feed? There is tremendous pressure upon women to do this and many are not comfortable in the practice For a lot of women, it is very difficult to do breast feed because of many reason, e.g., jobs, physical reasons, etc. .

At the epicenter of this pressure and expectation is the woman herself. In our society, our vision is that the baby is born and she is elated to have her child at her bosom. That may be the experience of many, but it is certainly not all and there is tremendous guilt upon a mother who feels exhausted or disinterested in her child for even a moment after birth. Similarly, there is exceptional guilt and doubt that lingers after every birth that does not go as planned. Somehow, the mother believes, that she cannot / will not bond with her baby. This phenomenological experience is subjective of course. Adoptive parents can bond very well their children. This evidence aside, the sense of doubt and depression for these mothers is very real.

I realize this book is not focused the niche experiences of human beings; however, I know how powerful it is to give birth. The biological, psychological and emotional experience of the mother, as the book notes, affects the development of the child. It is worth giving some thought I totally agree with you, But, I do not think there are many research studies yet. I hope I can meet your children someday. ☺

The nature-nurture debate continued throughout the chapter 2 reading. Most often, I conceptualize the nature-nurture debate in terms of behavior. I often think of resiliency and how children's behavior is influenced by both nature (biology) and nurture (environment). This chapter provided a different perspective and highlighted the significance of nature-nurture in the physiological development of children. I was most surprised by how gene-linked abnormalities are influenced by both biology and environment. Specifically, I learned that Phenylketonuria (PKU) has a genetic or biological component, but in order for the disorder to be expressed an environmental stimulus is required for treatment. This particular example lends more credence to the bi-directional view, or, epigenetic view rather than the hereditary-environment view in which the heredity only influences the environment. I am glad that you seem to have some insight based on the reading/

The text briefly mentioned the bioethics and moral dilemma that advanced fetal testing can create. I was surprised the text did not discuss further the implications that advanced fetal testing can have on the abortion rate. I do not think that there are many research studies on this issue though. It would be interesting to see how these tests may influence the overall abortion rate in the United States. Are women more or less likely to abort a child if tests indicate a major disability? It sounds like a good research topic. Why don't you find it out? ☺

Shannon Leary

February 1, 2009

Reading log 2

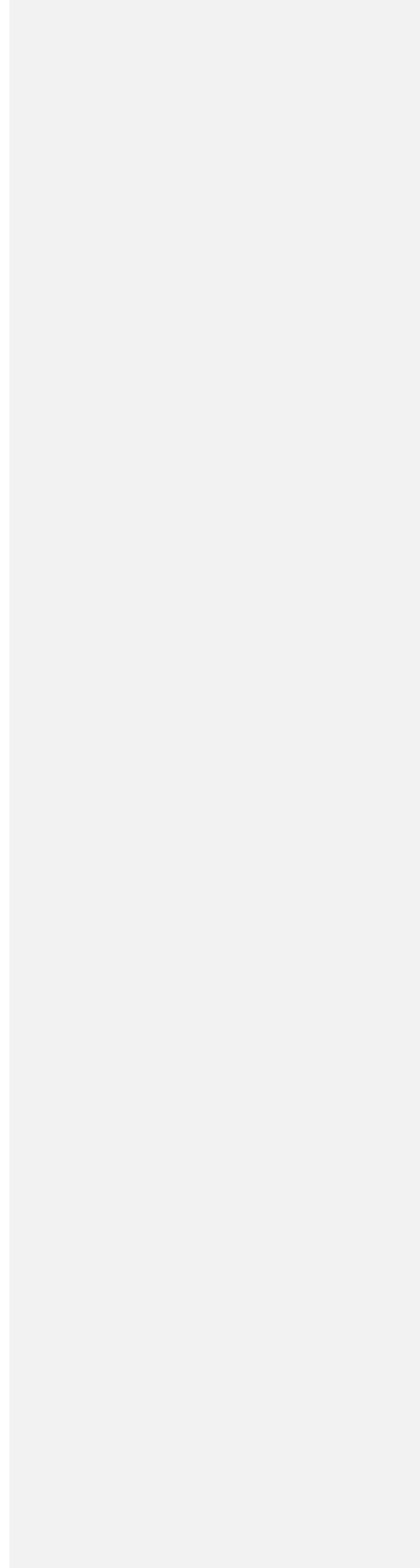
This chapter was far more interesting to me than the previous chapter. There were several sections that were very interesting to me and they were so for very different reasons. Of initial interest to me was the discussion on genes as collaborative rather than independently operating determinants of characteristics and conditions. I had mentioned in class last week that I was a firm believer in the diathesis stress model which suggests that environmental stressors are sometimes responsible for the expression of genes in relation to psychopathology. I was glad to see this discussed in greater detail in this section and pondered, albeit briefly, why there is so much dispute regarding the nature/nurture controversy when it is established both are responsible for developmental outcomes.

While I enjoyed seeing the emphasis on the importance of both genetics and environment in human development what really captured my attention was the section on “kangaroo care” (page 94 and 95) in the neonatal intensive care units (NICU) of hospital for premature and low birth weight babies. What struck me most about this section was the discussion of how this practice helps increase bonding between parent and infant and the positive health outcomes for the infant. I was moved by this primarily because my daughter was in the NICU for 11 days after she was born due to complications from her birth. She and I were not given the opportunity to have this “bonding” experience because our time spent in that unit predated the move to increasing parent/infant contact in the NICU. I am both sad and delighted at this move. Sad because I missed this opportunity with her and not having that contact with her during the first days of her life has been something I have always missed I have the same situations with both of my children. I was very worried about the “bonding” issue too. I’m delighted that there is more attention to the importance of this contact now What do you mean by this? Could you explain this when you see me?.

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I found myself very engaged in this reading and that is probably because I have two children; one who was delivered via c-section and one who wasn't. I delivered both of my children via c-section. Unfortunately, my daughter who wasn't delivered by c-section has a traumatic birth and has resultant developmental delays. Parenting them and watching their development has been a drastically different experience from one child to the next. I understand what you are saying here. I appreciate reading how my experiences have been shared by other parents who have been through the same things as I have.

Thank you for your deep thought of this topic. I really appreciate!I look forward to learning more about each of the topics presented in this chapter.



I was excited to read this chapter on biological beginnings because the role of biology in human development has always fascinated me. Although, I already took Biopsychology and Human Development it was nice to get a refresher on evolution, genetics, prenatal development and birth, and the nature-nurture debate and also learn some new things as well. I feel there are some concepts that you need to learn multiple times before actually comprehending the concept fully. I feel this way about genes and chromosomes and the three processes (mitosis, meiosis, and fertilization) that help pass genes from generation to generation. After reading, I feel I have a better grasp of these concepts and also learned about three sources of variability. I do not recall knowing that sources of variability come from the fact that chromosomes in the zygote are not exact copies of those in the mother's ovaries and father's testes, that due to multiple reasons DNA may have a mutated gene, and that for each genotype, a range of phenotypes can be expressed. You sound like you are very interested in Biopsychology! I was also surprised to know that brown hair, farsightedness, and dimples rule over blond hair, nearsightedness, and freckles in terms of dominant-recessive genes. I found it intriguing that African American children are rarely born with Down syndrome and this got me thinking about why that is and I wish they would have elaborated on the topic more in this section and at least gave some possible hypotheses as to why this occurs I do not think that there are many research studies on this topic. Why don't you do research on this? While reading about XYY syndrome it got me thinking about an extremely tall male in one of the groups I lead at internship. I had to give breathalyzers to everyone as they came in and when I went to give him one, I was shocked at how tall he was and even made a comment of "wow, how tall are you?" He just answered extremely tall and after that I realized he may feel self-conscious about his height. Later in the

group he shared that he is about 7 feet tall and I wonder if he has this syndrome. Do you think that he is self-conscious? I thought that the taller, the better... Maybe not?I now understand what was said in class that students usually run out of space on reading logs! You are funny! I am glad that you have learned a lot from the reading.

Andy Osborn
Chapter 2 Reflection

One of the major themes that this chapter talked about was the debate between heredity and environment. I appreciated how the book talked about the influences of each separately and then concluded with comments about how they are both related. Most importantly to me I appreciated that the text specified that the environmental influences include such influences as parenting, family, birth complications, schooling and even biological processes. The reason I liked this is because it is the nurture side of the debate. I think there is a lot of merit to the nature versus nurture debate and as I said I liked the text said it was really both. We are all born with genetic tendencies and predispositions and the environment may bring out those traits and “nurture” them, or it might not. I relate this to schizophrenia. There is a lot of research that shows there is a genetic component to schizophrenia, but in twin/adoption studies some show the symptoms and some do not. They have closely linked this to environmental stressors bring out the symptoms/pathology Yes, so many research results agree with this..

The last part of the chapter talked about the birthing process. I can honestly say that I have not read about this since freshman year biology in high school. It was a nice refresher on the material to be reminded about how all of this happens. In reading this part of the chapter I was disturbed by how many things can go wrong and cause problems for a fetus and new born baby I knew that you would think about this. It seems there is a lot the mother and father can do to combat this but there is also a lot that is out of their control. I am amazed at how many babies are born that are healthy and “normal” given everything that can go wrong How lucky you have been!. However, it is rare statistically! To relate this back to counseling, this area offers a nice intervention area for counselors. Counselors can intervene and do counseling with parents dealing with their feelings of frustration, grief or anger over a premature birth, miscarriage, genetic disorder or child born with a developmental disorder. I am glad that you think about the reading in terms of your career. Of course the child will need multiple

interventions as well as is the case with developmental disorders.

Stephanie Phelps
2/4/09
Reflection #2

I found this chapter to be very interesting and insightful. I was a biology minor How interesting! in my undergraduate work, so I have always been fascinated about the development of species and evolution. I found it helpful to review the genetic abnormalities and disorders. I think that this subject is particularly important in the field of counseling because it is important to know how to help individuals and families that are affected by these disorders I am glad that you think about this in terms of your career. In my own personal experience, since I have started my internship I have had several families that had children that were affected by various disorders such as autism, aspergers, and mental retardation. I realized that I did not have a lot of information on these disorders, and for several sessions I felt that I could not help them. Therefore I am now making an effort to study such diseases and learn of the best possible treatment in terms of counseling I am so happy to hear that!.

I was also interested in the effects of legal and illegal psychoactive drugs on prenatal child development. In the career of counseling, I think it is important to understand these effects much in the same way as the previous disorders that I mentioned. Understanding the biological effects drugs have had on a child, gives me as a counselor a good perspective on what can be reasonably expected from children and what can be worked on and different ways to approach things, such as behavior modification. I was also very interested in the differences of childbirth in other countries compared to the U.S., and also the emotional state and stress part. My own personal opinion is that prenatal care and the first few years of a child's life drastically shape that particular child's life in many ways, therefore I am very interested in thoroughly understanding early development Why don't you do research on it? and apply my knowledge in working with

families that have very young children. It sounds like you take your career very seriously. Thank you.

Initially when reading over this chapter I felt like there was going to be very little either interesting or relevant to development with clients I work with. I was surprised to see how my interpretation of relevance was contradicted, and I found myself being able to apply a lot of the concepts in different ways. The main thing that didn't really cross into application for the counseling field was the birthing process and the very basic facts about conception etc I understand. While it is important to know how we develop in the womb in terms of preventing disease and birth defects, the process of conception isn't entirely relevant when working in a counseling session with a client. Although, I must acknowledge the potential detriments to development during these early stages, as I have seen firsthand the effects of Fragile-X, Klinefelters, and Down Syndrome.

One of the most interesting pieces within this chapter was related to environment and development of children's personality. Just from personal experience I can see how two people raised in the same household can have entirely different personalities Yes, it is very true. But, not many people know this. While reading this text it really confirmed in my mind that there is much impact of the environment on the genes we are born with, and vice versa. Personally I believe I would subscribe to the epigenetic view of development because it combines the ideas of both nature and nurture. What I found the most interesting about this point of view is that while developmental experts most often hold this belief, that there is still a nature versus nurture debate at all. The idea that we develop as human beings strictly through our genetics, or strictly through our environment just has always seemed absurd to me Yes, I totally agree with you. I also think that this shows some of the limitations of individuals such as Erikson and Freud, who did not attribute development nearly at all to any sort of genetic predisposition or factors whatsoever.

They treated variables in personality as all controllable through the environment, and happening often at early stages, which continues to strike me as odd. But, I still like Freud. 😊

In reading the section in this chapter about genetic disorders it brought to mind a very intense question for counselors. If you know a client was a carrier of a genetic d/o, what would be your reproductive recommendation and how would you help someone work through this issue

I was thinking about this. I wanted to see what the students answers like, but nobody has talked about it in his or her reflection. Finally I found that you thought about this. (pg. 64). We are told repeatedly that counselors are not in the business of giving advice, but education is certainly a piece of our job. I believe strongly that people should know their odds/challenges, and discuss what they want to come to their own conclusion I agree with you 100% on your belief on this. As counselors it is often hard to keep what would be our own personal choices and value judgments out of therapy sometimes.

I personally am not particularly interested in working in my professional setting with children/infants or pregnant mothers, but I would have to say that I did not realize the effects of a mother's psychological health on her unborn child (pg. 80). We have learned since middle-school about the effects of the physical things a mother does on her baby and I guess it is just common sense that a mothers stress is not good for her baby, but I did not realize it is actually linked to emotional problem for the child in later life or premature birth. I know the DSM mentions post-partum emotional issues, but I have honestly never considered the important need for maintaining mental well-being while pregnant Wow! This is very shocking to me since I am from a totally different culture related to this issue.

As a side note, I really like the idea of how some other cultures attend to child-birthing. Though I find comfort in our very medical view, I think birth is almost so secretive that it seems

shameful to some women. I know personally of women who have been asked to “quiet down” or stop screaming I wonder why though. Maybe there was a reason?. A “Doula” (pg. 86) or any other form of as much support as possible sounds like a good idea to me.

Deborah S. Wood
Student #17
Reflection on Chapter 2

Much of this chapter was review for me as a nurse in labor/delivery and post-partum. I do apgar scores I have known of this, but I have never used it. Do you like it? on a regular basis, and, unfortunately, also do drug testing and hourly drug withdrawal checks on some of our newborns. I have seen firsthand the problems resulting from drug and alcohol use by pregnant mothers, and also have seen more than my share of genetic disorders especially because I worked in labor and delivery before the widespread use of ultrasound and amniocentesis. Not too long ago I worked with a Mom and her baby with Down syndrome, and she talked about her very difficult choice not to abort even after the knowledge that her child would not be “normal” Do you know why she decided to deliver? I’ve also seen, among other things, a baby with anencephaly who was stillborn, and one with Trisomy 17 who lived only hours, and a little boy with no hands or feet due to a genetic defect on the father’s side. The use of genetic counseling, ultrasound and amniocentesis, and legal abortion, has greatly cut down on the numbers of these births, but they still occur, and they are still heartbreaking every time I can imagine that. Those problems and defects due to substance abuse by the mother not only sadden me but also anger me because those could have been prevented Do they know this? Do you let them know this? As I await my first grandchild, I count myself fortunate that that child will have every chance his parents can give him to be a normal, healthy newborn – the rest I have to leave with God.

In terms of care for infants, I was familiar with kangaroo care which we are implementing Wow! I have never had anyone who actually does or did this. Can you talk about this more in class?, I understand, at my hospital, but I had not heard of Field’s work with massage therapy and premature infants. It sounds as though the research is proving the technique to be useful in calming and stimulating growth in full term infants as well, so I am going to do some research for my daughter-in-law on this. So, you will become the young and cool

grandma? Premature and low birth weight infants seems to be a greater problem now than it was early in my career, perhaps because of the larger number of adolescents having babies, and the greater use of illegal drugs during pregnancy. Whatever the cause, it is a very real and very expensive problem when these babies wind up in NICU as a result. I don't have a solution but something needs to be done...I totally agree with you.

Hannah Barnhill Bayne

Reading Response #2

I thought the mention of the evolutionary model of human development was very interesting in this week's readings. It was surprising to hear the principles of evolution applied to modern human development. For one, evolution had always been taught to me as a process of the past, and as a phenomenon affecting the animal kingdom much more so than the human race. When applied to human development, it seems that evolutionary theory adds more fuel to the nature vs. nurture debate, arguing that those traits inherent to the "nature" of an individual may be the result of millions of years of selective breeding and survival of the fittest. This argument seems to overlook the numerous mental and physical disorders that continue to occur within the population, carried many times on recessive genes in otherwise healthy and "fit" parents. The part of the chapter on DNA and gestation spoke to how random combinations of chromosomes can result in deformities before a child has even been exposed to the formative influence of the environment.

Needless to say, I am not a loyal fan of evolutionism Even when you are not a fan of evolutionism, you thought about it in depth in many different ways, which is what I want you to do. Thank you. I hope you are learning a lot from your reflection! While the concepts are fascinating, I find the theory to be antiquated in our modern day. Medicine, research, and technology preserve life to where survival of the fittest is not a necessary condition for development. I do, however, think the authors make an intriguing point when they discuss the degenerative diseases of old age. If evolution is indeed alive and well in our current age, and if the task of evolution is to maintain reproductive fitness among the population, than it would make sense that diseases and disorders of the later years would go unchanged and

unaltered. In work with clients, however, I believe a strict evolutionary view of development would be insensitive, as it applies labels of “fit” and “unfit” and places judgment on the desired characteristics of a society. One need not look too far back in history to the time of eugenics and forced sterilizations to learn how dehumanizing and immoral such a strict adherence to evolutionary “ideals” can be [Do you know that there are still “forced sterilizations”?](#)