

Out of Eden: A Christian Ethics Study Guide to Food and the Environment Session 3

Plastic: When Your Choices Mutate Someone Else's Baby

Part 1: Introduction to the Problem of Plastic

Let's watch an 18 minute TED Talk video called *The Toxic Baby* by Tyrone B. Hayes.

Discussion Questions

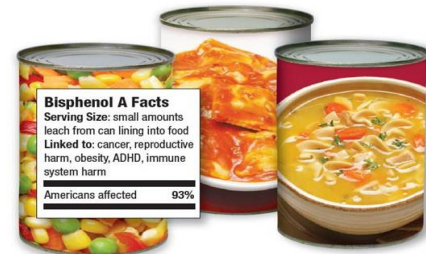
1. Did you know that BPA (a plastic), as the video says, has been linked with the conditions below. What concerns, fears, personal stories does this raise?

- Risk for cardiovascular disease
- Cancer: breast, brain, prostate
- Attention-related disorders
- Erectile dysfunction
- Sexual dysfunction
- Learning disorders
- Infertility
- Diabetes
- Obesity



2. Discuss the role of xenoestrogens, keeping mind these facts along with the two articles that follow. Xenoestrogens are chemical compounds in plastic that imitate estrogen. It literally means 'foreign estrogen' because it enters the body from outside.

- Risk for cardiovascular disease
- Cancer: breast, brain, prostate
- Attention-related disorders
- Erectile dysfunction
- Sexual dysfunction
- Learning disorders
- Infertility
- Diabetes
- Obesity



Impact on women:¹

- Higher rates of breast, uterine, ovarian cancers, diabetes, heart disease
- Heavier menstrual cramping
- Larger breast size
- Hormone disruption
- Allergies
- Accelerated aging
- Depression, fatigue, etc.

Impact on male *animals*:²

- Mutation, dysfunction
- Decrease in sperm count
- Inability to reproduce (chemical castration)
- Development of ovaries and eggs
- Homosexual behavior

¹ Paula Mejia, 'If You've Taken the Pill Recently, You May Be at Increased Risk of Breast Cancer,' *Newsweek*, August 1, 2014, citing an article in *Cancer Research*, says, 'Women who took high-dose estrogen birth control pills were 50 percent more likely to develop breast cancer... Women currently have a one-in-seven chance of developing breast cancer in their lifetime, but the study suggests the odds might increase when coupled with high-estrogen pills and genetic history.' Cf. J. Toppari, A. Juul, 'Trends in puberty timing in humans and environmental modifiers,' *Molecular Cellular Endocrinology* (August 2010), p.39 – 44; E.A. Guillette, C. Conard, F. Lares, M.G. Aguilar, J. McLachlan, L.J. Guillette, 'Altered breast development in young girls from an agricultural environment,' *Environmental Health Perspectives* (March 2006), p.471 – 5; Elizabeth Smith, M.D., 'Xenoestrogens the Cause of Menstrual Cramp,' *Menstrual Cramp*; <http://www.nocramp.com/xeno.html> last accessed August 6, 2016

² Tyrone B. Hayes, *Case Study of Atrazine and Environmental Health*, UC Irvine video, June 11, 2012 (Youtube); Juan Gonzales and Amy Goodman, 'Silencing the Scientist: Tyrone Hayes on Being Targeted by Herbicide Firm Syngenta,' *Democracy Now*, February 21, 2014; A.M. Vajda, L.B. Barber, J.L. Gray, E.M. Lopez, J.D. Woodling, D.O. Norris, 'Reproductive disruption in fish downstream from an estrogenic wastewater effluent,' *Environmental Science Technology* (May 2008), p.3407 – 14.

Article:
Environmental Chemicals and Disorders of Sex Differentiation in Male Newborn³

‘There is great concern that the incidence of congenital disorders of male sexual differentiation is increasing. Several reports indicate an increase in the prevalence rates of cryptorchidism, hypospadias and micropenis. It has been hypothesized that the adverse trends in male sexual differentiation are related to environmental xenoestrogens and/or antiandrogens, which may disrupt normal sex differentiation during fetal life. In this short review, we summarize the secular trends in the incidence of disorders of male sex differentiation, the occurrence of genital abnormalities in the sons of women exposed to diethylstilbestrol during pregnancy, and the adverse effects of prenatal estrogen and antiandrogen treatment in experimental animals and in human male fetus. We also report the main environmental chemicals with known estrogenic and/or antiandrogenic effects. Special attention is given to the testing strategies for evaluation of estrogenic-like or antiandrogenic activity of potential environmental disruptors.’

- Hypospadias: birth defect of the urethra where the urinary tract opening is not at the usual place, at the head of the penis
- Cryptorchidism: the absence of one or both testes in the scrotum
- Micropenis: when the erect penis is 2.75 inches or less; whereas the average erect penis is 5 inches

How do we absorb chemicals like xenoestrogens?

- Almost all plastics, especially when plastics become hot or are heated
- Bisphenol A in plastic bottles, containers and almost all food-can liners
- Recycled plastics with residues of herbicides, pesticides, poisons and chemical solvents
- Non-organic livestock are fed estrogenic drugs to fatten them
- Grains sprayed with pesticide
- Some soaps, cosmetics, lotions, shampoos
- Solvents found in fingernail polish and polish remover, glue, cleaning supplies
- Some food coloring
- Plastic microbeads in water
- Oral contraceptives, synthetic hormones
- Recycled water with hormones from urine from women who used estrogen-based birth control pills (recycling toilet water filters urine but not the hormones)⁴

Discussion Questions

- We’ve designed plastics to increase our choices. Plastic bags, bottles, Tupperware, etc. are meant to increase our food choices, like what, when, how, and where we eat. Make-up, condoms, birth control, and other chemicals related to plastics are meant to increase our sexual choices, like when, where, how, and with whom we have sex. But what if increasing our choices impacts other people’s experiences of food and sex without their consent? Should future generations have veto power on the present generation?
- Why do we think more choices are good for us?
- Is there a path of human development that everyone should experience? Physically? Morally?

³ C. Jeandrel, F. Paris, B. Terouane et C. Sultan, ‘Environmental Chemicals and Disorders of Sex Differentiation in Male Newborn,’ *Les Journees de Techniques Avancees en Gynecologie et Obstetrique PMA Perinatologie et Pediatrie* (2002); http://www.lesjta.com/article.php?ar_id=419

⁴ Richard Owen & Susan Jobling, ‘Environmental Science: The Hidden Costs of Flexible Fertility,’ *Nature*, May 24, 2012; Bob Yirka, ‘Pair Call for Public Discourse on Treating Wastewater Contaminated with Birth Control Pill Chemicals,’ *Phys.org*, May 24, 2012

Part 2: Does Absolute Freedom Corrupt Absolutely?

‘Vain, immoral, bigoted: this is your brain in action, according to [researcher Cordelia Fine]... The brain, she shows, distorts reality in order to save us from the ego-destroying effects of failure and pessimism. For example, an optimist who fails at something edits the truth by blaming others for the failure and then takes complete credit for any successes.’⁵

‘There is no good and evil, only power, and those too weak to use it.’⁶

[In Hinduism:] ‘Evil as well as good, along with suffering is considered real and caused by human free will... However, neither good nor evil... are linked to gods or God, but considered a part of the innate nature of living in the Samsāra cycle of rebirths.’⁷ ‘On the higher level of Existence, however, there is no evil or good, since these are dependent mainly on temporal circumstances.’⁸

‘If there is no extant God and no extant gods, no good and no evil, no right and no wrong, no meaning and no purpose; if there are no values that are inherently valuable; no justice that is ultimately justifiable; no reasoning that is fundamentally rational, then there is no sane way to choose between science, religion, racism, philosophy, nationalism, art, conservatism, nihilism, liberalism, surrealism, fascism, asceticism, egalitarianism, subjectivism, elitism, ismism.’⁹

‘Life has no higher purpose than to perpetuate the survival of DNA... life has no design, no purpose, no evil and no good, nothing but blind pitiless indifference.’¹⁰

^{2:7} Then the LORD God formed man of dust from the ground, and breathed into his nostrils the breath of life; and man became a living being. ⁸ The LORD God planted a garden toward the east, in Eden; and there He placed the man whom He had formed. ⁹ Out of the ground the LORD God caused to grow every tree that is pleasing to the sight and good for food; the tree of life also in the midst of the garden, and the tree of the knowledge of good and evil. ¹⁰ Now a river flowed out of Eden to water the garden; and from there it divided and became four rivers... ¹⁵ Then the LORD God took the man and put him into the garden of Eden to cultivate it and keep it. ¹⁶ The LORD God commanded the man, saying, ‘From any tree of the garden you may eat freely; ¹⁷ but from the tree of the knowledge of good and evil you shall not eat, for in the day that you eat from it you will surely die.’ ¹⁸ Then the LORD God said, ‘It is not good for the man to be alone; I will make him a helper suitable for him’... ²² The LORD God fashioned into a woman the rib which He had taken from the man, and brought her to the man... ²⁵ And the man and his wife were both naked and were not ashamed... ^{3:6} When the woman saw that the tree was good for food, and that it was a delight to the eyes, and that the tree was desirable to make one wise, she took from its fruit and ate; and she gave also to her husband with her, and he ate. ⁷ Then the eyes of both of them were opened, and they knew that they were naked; and they sewed fig leaves together and made themselves loin coverings.

⁵ Publisher’s Weekly review of Cordelia Fine, *A Mind of Its Own: How Your Brain Distorts and Deceives* (New York: W.W. Norton & Co., 2008); see also Buster Benson, ‘You Are Definitely Not Living in Reality Because Your Brain Doesn’t Want You To,’ *Quartz*, September 16, 2016; Bahar Gholipour, ‘You Can’t Always Trust Your Own Thoughts, And This Terrifying Chart Shows Why,’ *Huffington Post*, September 22, 2016)

⁶ J.K. Rowling, *Harry Potter and the Sorcerer’s Stone* (New York, NY: Scholastic, 1998), p.291

⁷ Wikipedia, ‘The Problem of Evil in Hinduism’ accessed August 19, 2016

⁸ Wikipedia, ‘The Problem of Evil in Hinduism’ accessed 2005 – 2014

⁹ Mitchell Heisman, *Suicide Note*, 2010, p.21, found at <http://www.suicidenote.info>; Heisman committed suicide in Harvard Yard in September of 2010, leaving a very sophisticated, one thousand nine hundred and six page suicide note on the web in which he described his act as ‘an experiment in nihilism.’

¹⁰ Richard Dawkins, quote found online

Historical and Cultural Background

- The ‘image of God’ poem (Genesis 1:1 – 2:3) serves as a preface to the garden of Eden story (Genesis 2:4 – 4:26). Both the preface (Gen.1) and the genealogy (Gen.2) speak of God commissioning humanity to ‘fill’ the creation with life. The first seems to retell the typical Ancient Near Eastern story of the god or hero who defeats an enemy, builds a temple on that site, and places his image in it.¹¹ The garden of Eden story (Genesis 2:4 – 4:26) comes next, expanding the narration. It seems to be speaking to people of ancient river civilizations: the Nile (Egypt); the Tigris and Euphrates (Mesopotamia); etc. It tells the story of origins: of the waters, of all humanity, of God’s vision.
- In Scripture and in other cultures, trees symbolize age, firmness, strength, memory, and the ability to nourish us without dying. (This is why ‘ents’ in Tolkien’s *The Lord of the Rings* are special creatures, being shepherds of the trees, and having extremely long memories.) The two special trees, especially, represent *God*. In the story, God is the source of more life; God is the one who defines good and evil.

Discussion Questions

Let’s look at the similarities and differences between the ‘story’ of the modern problems we have caused with plastic, and the story of the ancient problems we have caused with human nature.

- The story of plastic has to do with *mutation*. The next story, the story of Cain and Abel, sons of Adam and Eve (Genesis 4), illustrates how human nature has been damaged. What if there is a spiritual mutation in human nature which makes us care less than we should about the biological mutations we cause in children down the line?
- The story of plastic has to do with *morality*. In the Genesis story, what is the intended path of human development: Physically? Morally? Do you believe that there is a real good and evil? Who gets to define them?
- The story of plastic has to do with *overconsumption*. In what sense does the Genesis story also deal with overconsumption? What is the value of limits? Why is it attractive to take into one’s self the power to define good and evil rather than leave it with God?

Action Steps¹²

1. Ditch single-use-plastic. As a recent colleague who is in his 60s mentioned, “We didn’t have this problem when I was a kid. There wasn’t all this single-use disposable plastic. Everything was in glass, paper, steel or aluminum. This is a problem that’s been created in my lifetime.” Single-use disposable plastic items (SUDS) are the largest contributors to marine plastic pollution. Communities, institutions, businesses, governments and individuals can all take steps to minimize the use of SUDS, seeking reusable alternatives and ways of delivering and consuming goods and services that minimize the use of materials that have a high tendency to end up as plastic pollution.

¹¹ Rikk Watts, ‘Making Sense of Genesis 1,’ *Stimulus*, Volume 12, Number 4, November 2004

¹² The following comes from Matt Prindiville, ‘The Solution to the Plastic Problem?’, *Upstream*, April 22, 2015; <http://upstreampolicy.org/the-solution-to-plastic-pollution/>; last accessed August 18, 2016

2. Ban and/or substitute the worst offenders. Through the International Coastal Cleanup day, the Ocean Conservancy captured data on the top items which make up the majority of beach litter and marine plastic pollution. It makes sense to push for the development and deployment of alternatives and new technologies to reduce or eliminate these sources of pollution. When there are readily-available alternatives or technologies at comparable cost, bans on the worst offenders are a no-brainer. These include bans on items like single-use-disposable plastic shopping bags and polystyrene take-out containers. The good news is that these are inexpensive policies to implement and can be adopted in developing and developed nations alike, with the only costs being enforcement.



In the United States, much of the energy around policies to tackle plastic pollution has stemmed from a California-based campaign known as the Clean Seas Coalition (CSC). Comprised of nearly 30 groups, including community and state groups, and national organizations, the CSC has been a remarkable force for change. Prior to the statewide California ban on single-use disposable bags, which is the coalition's biggest success to date, they had succeeded in passing community bag and polystyrene bans for a majority of the state's population. UPSTREAM's board member, Leslie Tamminen, was instrumental in developing the CSC.

3. Innovate to replace the worst offenders. Thanks to the growing concern about plastic pollution around the world, entrepreneurs are innovating to create biodegradable materials that can replace the worst offenders. Often the challenge is not in the creation of the materials themselves, but in getting them picked up and used by major corporations. One of UPSTREAM's advisory board members, Daniella Russo, heads up an organization called Think Beyond Plastic (www.thinkbeyondplastic.com), which acts as an accelerator and forum for the deployment of technologies to solve plastic pollution. A great example of a technology innovation is Ecovative's compostable mushroom foam which can replace polystyrene for food-contact applications (www.ecovatedesign.com). While consumer goods companies and restaurant chains ultimately need to invest in these technologies, developed and developing countries, as well as local jurisdictions, can pass policies to support their widespread adoption at little to no cost.
4. Scale up best practices around recycling and away-from-home collection. It's no secret that the United States has one of the lowest recycling rates in the developed world at roughly 34% of what is generated by US households. But communities all over the United States and the world are showing how it can be done. San Francisco has reached an 80% recycling rate. Cart-based recycling and composting and the cultural support for zero waste is a model that should be exported to the world. Efforts are afoot to figure out how to utilize the remaining 20%, much of which is low-value plastics without current recycling markets. Similarly, in order to prevent plastic pollution, we need waste and recycling infrastructure when we're away from home – in public parks, beaches and along city sidewalks. Scaling up best practices around recycling and developing away-from-home collection infrastructure is expensive and will be more challenging for the developing world to implement than the developed. As is the case in Europe and gradually more of the developed world, funding for recycling infrastructure – and outreach and education – should increasingly come from the companies that produce packaging through extended producer responsibility (EPR; <http://upstreampolicy.org/projects/sustainable-packaging-policy/>). Container deposits – a.k.a. “bottle bills” (<http://www.bottlebill.org/>) – are a highly successful form of EPR, which create incentives for the prevention and cleanup of litter and should be considered as a high-leverage tool to prevent plastic pollution.

5. Scale up best practices around storm-water management to capture plastics before they enter the environment. Significant amounts of plastic are removed through installing and maintaining storm-water capture devices, street-sweeping and storm drain cleaning and maintenance. While these are admittedly “the last stop” before plastics enter the environment, and should not be pursued as the only approach, they are an important part of the solution especially in developed countries. The challenge is that these approaches are expensive to implement and require significant amounts of ongoing funding.

6. Invest in solid-waste and recycling infrastructure in the developing world. No set of strategies to tackle plastic pollution would be complete without looking at the biggest source of plastic pollution by far – and that is the lack of solid waste, recycling and litter prevention infrastructure in the developing world. A recent comprehensive study in *Science* magazine lists the top 20 countries that are the major global contributors to marine plastic pollution (<http://news.nationalgeographic.com/news/2015/02/150212-ocean-debris-plastic-garbage-patches-science/>). The United States is number 20 and is the only developed country on the list. For those of you who might want to vilify China, consider that much of the developed world’s recyclables are shipped to China for processing and use. We would argue that the largest source of marine plastic pollution has been created by the world’s major consumer goods companies – by selling goods wrapped in plastic into developing countries without a second thought as to what will happen to the package when their “new customers” are finished with the product.

Top 10 sources of ocean's plastic waste



Leader's Notes

Part 1: Introduction to the Problem of Plastic

1. Did you know that BPA (a plastic), as the video says, has been linked with the conditions below. What concerns, fears, personal stories does this raise?
2. Discuss the problem of xenoestrogens
 - a. Discuss: How are we are messing up the environment for future generations?
 - b. If cleaning up our environment of plastic and these chemicals reduced the number of people in the LGBTQ community, would it still be the right thing to do?
 - i. Is sexuality affected in other ways? Earlier onset puberty is happening. So some people say male sexual attraction to children ages 11 – 14 should be considered normal: ‘An academic conference held at the University of Cambridge said that pedophilia interest is “natural and normal for males”, and that “at least a sizable minority of normal males would like to have sex with children, and normal males are aroused by children.” These sentiments were discussed at a conference that took place last year to discuss the classification of sexuality in the Diagnostic and Statistical Manual of Mental Disorders (DSM), the standard international psychiatric manual used by the legal system. The conference, which was titled “Classifying Sex: Debating DSM-5,” had featured a number of speakers who spoke in favor of sex with children, which, in essence, is supporting pedophilia. The American Psychiatric Association (APA), which produces it, had been locked in battle over whether hebephilia should be included as a disorder. Hebephilia is the sexual preference for children in early puberty, typically 11 to 14 year old’s. The proposal was being discussed because children are going through puberty at a younger age and the current definition of pedophilia is attraction to pre-pubescent children.’¹³
 - ii. “Our experience fools us all the time.” Qazi Rahman, “Gay Genes’: Science is On the Right Track, We’re Born This Way. Deal With It.’ *The Guardian*, July 24, 2015, arguing why desire alone is not a good argument. Although it is not clear why giving a genetic or epigenetic explanation for desire is adequate. What if something went wrong with people in the womb?
 - c. If there is such a thing as lead poisoning or plastic poisoning, then is there such a thing as normal and healthy human development? What are the implications of that?
3. Why do we think more choices are good for us?
 - a. More choices give us a feeling of power, convenience, freedom
 - b. Consider this quote: ‘Has it occurred to you that the food freedoms we so long to protect may be something quite different? What happens if we are actually NOT free to choose at all, if in fact the freedom we believe we are protecting is simply the defense of a gripping addiction? Suddenly, the argument changes. Should we protect the right to choose something that is, in fact, not freely chosen? This is how I see this issue and it is a perspective that I have not heard discussed. An increasingly significant line of research confirms the fact that sugar and the things that become sugar after digestion (i.e. grains and starchy carbs) are addictive. In a recent segment on *60 Minutes*, Dr. Sanjay Gupta subjected himself to an MRI while sipping Coca Cola. The MRI shows an immediate hit to the brain’s pleasure centers, the very areas which are stimulated by drugs. Animal behaviorists confirm the fact that animals will choose to overconsume pleasurable substances both in the lab and in the wild. Like other species, we are suckers for a food high. Once hooked, we can’t figure out why we keep going back for more. Our world has started looking a lot like a lab in which we are drenched in a bath of addictive foods and observed by those who create them. The foods are then tweaked to provide further ‘irresistibility.’ It is the ‘right to choose’ these foods that we fight for. Is it really a choice? Is free will really involved?’¹⁴ Can this contrast between free will and addiction be relevant to our dependence on plastics and chemical xenoestrogens?

¹³ Lauren Richardson, ‘University Academics Say Pedophilia Is ‘Natural, And Normal For Males To Be AROUSED By Children’,’ *Truth Uncensored*, January 27, 2016

¹⁴ Barbara Berkeley, MD, ‘Mayor Bloomberg’s War vs. The Answer To Eat Whatever,’ *Refuse to Regain*, June 14, 2012; <http://www.refusetoregain.com/2012/06/mayor-bloombergs-war-vs-the-freedom-to-eat-whatever.html>

- c. (optional) What if our bodies are meant to be ruled by our souls, our spiritual side? Rabbi Shmuley Boteach from New York says:

'But while acknowledging that the physical state of men and women may veer toward a craving for exciting and new sexual experiences, humans are also possessed of a soul which seeks precisely the opposite, namely an intimate sexual connection based on primacy and exclusivity. And this spiritual-intimate need strikes even deeper than the physical-polygamous yearning. Moreover, sex with a committed partner is more exciting, erotic, and electrifying, not only because of the presence of love and commitment, but because the intimate nature of the relationship allows the participants to let go fully and submit entirely to instinct. In Puebla I argued that the principal desire of a woman is not to be loved, because if so she would remain in her parent's home her entire life. Parents, whose love is unconditional, won't divorce her or cheat on her. Rather, a woman's desire is to be chosen. To be made into the one and only. To have primacy and exclusivity conferred upon her by a man who places her at the center of his universe. If we are not innately monogamous, how else to explain the indescribable, catastrophic pain caused when a partner discovers that his or her or spouse has been unfaithful? Numerous studies show that of all the traumas experienced in life, the pain of discovering that a spouse has been unfaithful ranks among the highest. That kind of emotional suffering, which one almost never overcomes fully, demonstrates that we are programmed to expect faithfulness, to seek out uniqueness and singularity in our relationships, and to be the one and only to our beloved. While our secular, porn-saturated culture increasingly sees men as sex-obsessed intelligent primates, I see men as intimacy-seekers, searching out a woman who can nurture their hearts, cultivate their humanity, and with whom they can achieve a sense of oneness. Numerous studies show that when married men have affairs it is often emotional and non-sexual. They frequently seek to unburden themselves emotionally even more than they seek a novel sexual outlet.'¹⁵

The point here is not to get into theories of relationship. It's just to highlight that we have conflicting desires that comes from different areas of our personhood.

4. We've designed plastics to increase our choices. Regarding food: Plastic bags, bottles, Tupperware, etc. are meant to increase our food choices, like what, when, and where we eat. Regarding sex: Make-up, birth control, and other chemicals related to plastics are meant to increase our sexual choices, like who, what, when, where, and how. What happens when our increased choices with food and sex impacts other people's experiences of food and sex without their consent? Should future generations have veto power on the present generation?

Part 2: Does Absolute Freedom Corrupt Absolutely?

For the leader: This section of Genesis can be complicated to understand, so I've provided the following notes for you primarily. Please read through this on your own, so that you can understand where I'm coming from, and how the earliest Christians understood Genesis. This will help you answer most questions that come up. Don't feel the need to cover every point.

Question 1: The story of plastic has to do with *mutation*. The next story, the story of Cain and Abel, sons of Adam and Eve (Genesis 4), illustrates how human nature has been damaged. Can we tell if we, as 'children of Adam and Eve' are impacted?

5. Do you believe that human beings inherit a corrupted human nature?
- a. We have an 'out of sight, out of mind' ethic towards future children. There's a philosopher named Peter Singer how is controversial, but he's fairly logical and tries to be consistent. He says, 'Killing a newborn baby is never equivalent to killing a person, that is, a being who wants to go on

¹⁵ Rabbi Shmuley Boteach, 'Casual Sex and the Unsatisfied Woman,' *Huffington Post*, November 12, 2013

living [and can communicate that desire to you].¹⁶ Two scholars in the *Journal of Medical Ethics* argue for after-birth abortions: ‘Why should the baby live?’ is their title.¹⁷

- b. If there is no ‘human’ nature, then we are just ‘animal’ nature, or ‘nature. If that’s true, then can’t we just treat each other like animals or plants or dirt? What makes human beings different from the rest of the world?
 - c. But there’s a part of us that wants to define good and evil for ourselves. We don’t want to let that definition rest with God. We want to keep the fruit of that tree in us, to be part of us.
 - i. Illus: As an example, listen to what filmmaker Woody Allen said: ‘The heart wants what it wants.’ Woody Allen said that, about falling for his ‘adopted’ ‘stepdaughter’ Soon-Yi Previn, who was adopted by Mia Farrow, who was dating Woody Allen at the time. Soon-Yi is 35 years his junior.
6. Does the biblical story of our origins provide a realistic assessment of who we are?
7. Is there hope for healing us?
- a. In Christian thought, Jesus is the one who bent corrupted human nature back in himself, so he can share his new humanity with us by his Spirit. He’s the solution to human evil, which lives in us. It’s not an abstraction. For more information, see the resources I have collected here: http://nagasawafamily.org/archives_atonement.htm.
 - b. For more conversation ideas, see *Evangelism in the New Humanity Paradigm*, p.24: <http://nagasawafamily.org/article-evangelism-in-new-humanity-paradigm.pdf>

Question 2: The story of plastic has to do with *morality*. In the Genesis story, what is the intended path of human development: Physically? Morally? Do you believe that there is a real good and evil? Who gets to define them?

8. (*optional, background*) What was the Tree of Life?
- a. According to Genesis 3:22 – 24, the tree of life makes people live forever. However, it appears that the tree of life would have sealed humanity in whatever state they were in. After the fall, human beings were in a dying, corrupted state.
 - b. So God is not being vindictive, or purely retributive. He’s being protective. He doesn’t want to deny humanity something good. He wants to protect them from something bad. He wants to prevent human beings from becoming dying beings, corrupted *forever*. Notice that in 3:22, God doesn’t even complete His thought. He chokes on His own thought, the thought that humanity would be forever corrupted.
 - i. The earliest writing theologian outside the New Testament, Irenaeus, bishop of Lyon (c.130 – 202 AD), said this:

‘Wherefore also He drove him out of Paradise, and removed him far from the tree of life, not because He envied him the tree of life, as some venture to assert, but because He pitied him, [and did not desire] that he should continue a sinner for ever, nor that the sin which surrounded him should be immortal, and evil interminable and irremediable. But He set a bound to his [state of] sin, by interposing death, and thus causing sin to cease, putting an end to it by the dissolution of the flesh, which should take place in the earth, so that man, ceasing at length to live to sin, and dying to it, might begin to live to God.’
(Irenaeus, *Against Heresies* 3.23.6)
 - ii. See also Methodius of Olympus (died circa 311 AD), who said:

‘In order, then, that man might not be an undying or ever-living evil, as would have been the case if sin were dominant within him, as it had sprung up in an immortal body, and was provided with immortal sustenance, God for this cause pronounced him mortal, and clothed him with mortality. For this is what was meant by the coats of skins, in order that, by the dissolution of the body, sin

¹⁶ Peter Singer, Peter Singer FAQ, Princeton University, accessed March 8, 2009

¹⁷ Alberto Giubilini and Francesca Minerva, ‘After-birth abortion: Why should the baby live?’ *Journal of Medical Ethics*, February 2012.

might be altogether destroyed from the very roots, that there might not be left even the smallest particle of root from which new shoots of sin might again burst forth.' (Methodius of Olympus, *From the Discourse on the Resurrection*, Part 1.4 – 5)

- iii. Gregory of Nazianzus (329 – 390 AD), whom the Orthodox church calls 'the Theologian' in appreciation for his work in the Nicene-Constantinopolitan Creed (and they only share that title with the apostle John 'the Theologian' and Simeon 'the New Theologian'), agrees:

'Yet here too he makes a gain, namely death and the cutting off of sin, in order that evil may not be immortal. Thus, his punishment is changed into a mercy, for it is in mercy, I am persuaded, that God inflicts punishment.' (Gregory of Nazianzus, *Oration 45*)

- c. The tree of life was God's way of inviting human beings to live with God eternally, to be drawn into the life of God. This wasn't 'really long-lasting life' as something apart from God, with an optional *relationship* with God thrown in, if we wanted God. The tree of life seems to have been the eternal life from *within God Himself*, based on relationship. God allows us to be co-creators with Him of *our own nature*. Through this tree of life, He will preserve the choices we make about ourselves in relation to Him. This is why He had to heal and redeem our corrupted nature once we ate of the other tree.
- d. From the New Testament, we get more insight into this. As a Trinity, the Father, Son, and Holy Spirit love one another freely. Yet it is their very divine nature to love one another, and they would never violate their own divine nature. Perfect freedom is the ability to choose according to one's nature. What, then, is the nature and freedom of human beings? If human beings were to be like the Triune God, and bear His image, we would have to both love God and one another, and do so freely. So God originally made our human nature good ('it was very good' in Gen.1:31) and inclined towards Him in love. We had a free choice to love God. And God, precisely because He respects human free will out of His love for us, wanted to give us the choice to fuse our free will to our good nature permanently, so that we would never sin, i.e. so that we would voluntarily choose to always love God eternally and bind ourselves to Him. This is why God was wooing us to Himself in the goodness of the creation. This was the nature of the Tree of Life.
- e. Does this mean that human beings could have just obeyed God in love, eaten from the Tree of Life, and been joined to God forever? *Yes. It could have been that simple.*
- i. Did God *have* to come in human form in Jesus to die for our sins? That is debated. God seems to have already placed Himself into His creation to be partaken of by human beings in the Tree of Life. Hence, Meredith Kline, professor at Gordon Conwell Theological Seminary, calls this the sacramental tree. Kline asserts that the Tree of Life was in fact the Logos-Son of God (*Kingdom Prologue*, chapter 4, section 2; 1993). The Son of God incarnated into human flesh would later say something to echo this Tree of Life, 'Take, eat, this is my life, given to you....' On the other hand, there is a long tradition of thought that the Son of God would have come in human flesh in some way, even if the fall never happened.
- ii. Revelation 13:8 is unusual and deserves special comment. For more information about this, please see my analysis of Revelation 13. http://nagasawafamily.org/john_revelation-13.book.analysis.pdf
- iii. *This again means that evil was never necessary. Which means that God is 100% good, and totally good towards human beings. He never tricked us or set us up to fail for some nefarious purpose.*
9. (optional, background) Why did God set up the Tree of Knowledge of good and evil? *To actually teach humanity about boundaries, limits, and who really defines good and evil.*
- a. To teach humanity about boundaries. God understands the human need for good boundaries.
- i. As I have become a father with each of my two children, I understand better why the tree of good and evil was there and off limits. Of course Adam and Eve would later bear children. That was God's intention.

- ii. They would need to respect each other's boundaries: spouse to spouse, parents to children, sibling to sibling; humanity and the created world. In order to do that, they needed to properly listen to God because He would be the one to help them know how to treat each other.
 - iii. God's fundamental boundary is that they would not define good and evil for themselves. God was saying, 'If you want to understand good and evil, come to Me, and I'll define it for you.' So long as human beings respected God as the king of His creation, human life would flourish, and healthy human community was truly possible.
 - iv. The tree of knowledge of good and evil is not a trick. It's not a test. It's reality. *It symbolized the fact that the definition of good and evil lay outside of humanity, and was older, taller, more ancient, and more venerable than humanity.* The tree symbolized the fact that God alone defines good and evil. And from that vantage point, He reserves to Himself the everlasting fruit of the tree. The tree of knowledge is a gift from God that physically represents His ancient presence *outside of the human being* to determine and define good and evil for all creation. The power to define good and evil does not rest within the human being. As such, *the tree of knowledge is fundamentally good in itself.*
- b. How did this tree symbolize God? God has the power to define good and evil. Humanity is supposed to leave that power with him.
 - c. (optional) Possibly, things hung on trees are meant to be *remembered*. They are *memorials*. In other places in Scripture, we see the negative side of this: Gen.40:18 – 22; Dt.21:22 – 23; Josh.10:22 – 26; 2 Sam.18:9; Est.7:9 – 10; Acts 2:22; 5:30; 10:39; 13:29.
10. (Start here with the group) Was there a way to learn good and evil without eating from the tree of knowledge? Yes! By doing the good that God commanded, in relationship with Him, and not doing the evil thing, which was to usurp his place as the one who defines good and evil for us.
- a. If Adam and Eve had never fallen into sin, what would their lives have been like? They would have become friends, and then lovers in marriage, and then had their first child. Life would get better and better!
 - i. Exegetical point: God had already shown that creation and goodness followed an arc of development and growth. God had said, 'It is not good for the man to be alone.' (Gen.2:18) That is, Adam was alone and unable to bring forth more life on his own. That was *not good* (!), and Adam had to understand it viscerally and personally for himself. He alone had that experience, and he could talk about it. He could name it. Other people could imagine it.
 - ii. Adam's aloneness wasn't in a moral sense evil per se, and God did not leave him there, but it was a physical analogy to what evil would really be like if they chose it: alone, isolated, unfruitful – the opposite of what God intended.
 - iii. And in fact Adam did blame Eve after the fall, drawing them both into some degree of aloneness and isolation. Furthermore, God had made the light shining on the earth 'good' on day 1 (Gen.1:4) to contrast with the darkness on the earth. It wasn't that night and darkness were evil per se, but it was a physical analogy of what evil would really be like if they chose it: not able to see, to behold, to face something and know its nature and call it good. And in fact, they became unable to fully see a blessing.
 - b. Principle: So you always understand evil better when you grow in goodness, because you understand it by looking backward along your personal *trajectory*.
 - i. When you do something kind and loving for another person, or do a community service activity, and you feel that whisper of satisfaction and meaning, you feel more energy and motivation to continue. You want your career and life to somehow be more and more tied to that purpose. Then, when you look backward, you can see by contrast that you didn't have as much purpose, meaning, and enjoyment of goodness as you did before. You understand evil! Not by participating in it, and doing it, but by going in the other direction: into the goodness God designed.
 - ii. Do I only enjoy a good strawberry because I've experienced a rotten one in the past?
 - iii. Do I only enjoy good sex when I've experienced rape?
 - iv. Our knowledge of the good is what enables us to know what is bad by comparison, but we do not need to experience the bad in order to know how good the good really is.

- v. Adam and Eve could have understood what it might mean to lose their child. Not by actually losing a child, and not by doing something that would have alienated a child. If they had continued to grow in love and relational experience with each other, they would start to understand by contrast what it might mean to have walked through life alone.
 - vi. Thus, the only way to understand evil is actually to resist it, reject it, and pursue growth in the goodness of God's will. That's because when we do evil, we rationalize it, blame someone else, and get used to it, and therefore we simultaneously lose insight into what evil really is and how terrible its consequences are.
 - vii. That's why I say that the tree of the knowledge of good and evil really did provide knowledge of good and evil. It wasn't a trick or test. If Adam and Eve had continued to reject the evil (trying to be their own gods), and grown in the goodness of God's plan (being centered on Him and drawing life and love from Him), they would have understood evil very well, not by actually doing evil, but by rejecting it utterly. Adam and Eve would have had more and more beauty, variety of fruit, wonder at the creation, creativity, relationship, sex, love, children, love, relationship, and on and on.
- c. Illustration: C.S. Lewis describes a world and a race which did not fall into temptation, in his book *Perelandra*. This is what the Adam figure says there:

‘We have learned of evil, though not as the Evil One wished us to learn. We have learned better than that, and know it more, for it is waking that understands sleep and not sleep that understands waking. There is an ignorance of evil that comes from being young: there is a darker ignorance that comes from doing it, as men by sleeping lose the knowledge of sleep. You are more ignorant of evil [on Earth] now than in the days before your Lord and Lady began to do it. But [God] has brought us out of the one ignorance, and we have not entered the other.’ (C.S. Lewis, *Perelandra*, p.209)

- d. Principle: You do not need to *do* evil in order to know and enjoy God's goodness. Yet they would have also *understood* evil. How? By resisting it. They would have understood that God's boundaries were good for them, and brought them life. Not just the one boundary of not eating from the Tree of Knowledge, but all boundaries, although the fruit of the Tree of Knowledge symbolized all other proper God-given boundaries and summed them up in itself. By not eating the fruit from the Tree of Knowledge, they would understand that they must not internalize boundary breaking. You are what you eat. When Adam and Eve did eat from this Tree, they not only broke a boundary, they became boundary breakers. They decided to supplant God's authority in creation as the one who defines what good and evil are. In effect, they tried to become their own gods. Their human nature became fundamentally corrupted.
 - e. Once again, this means that evil was never necessary to do or experience. We do not need to do evil in order to know good.
11. Do you believe in a real good and evil that are larger than us? Who gets to define them?
- a. ‘Good and evil’ language refers to realities that are larger than us. So how can you and I be the ones to define them?
 - b. Illus: The Harry Potter quote is a really precise way of saying it: ‘There is no good and evil, Harry, only power, and those too weak to use it.’ That's Voldemort's and Quirrell's perspective. Because if you're drawn towards evil, you feel like being good or trying to be good is like giving up options. For example, why not push off consequences to someone else? And then blame them for complaining?
 - c. Wouldn't absolute freedom corrupt you absolutely? Even God respects our boundaries, and says that He is good, so He only acts in ways that are good for us.
 - d. Is there a God who is so good that He is uncorrupted? I think so, and I think the Bible is the record of how that God has acted. And ultimately He is so good He can decorrupt human nature.

Question 3: The story of plastic has to do with *overconsumption*. In what sense does the Genesis story also deal with overconsumption? What is the value of limits? Why is it attractive to take into one's self the power to define good and evil rather than leave it with God?

12. *(optional)* In the garden of Eden, how was God already showing humanity how good He is?
 - a. Beauty: The entire creation was majestic and splendid
 - b. Food and nourishment: deliciousness and provision
 - c. Human joy in relationship, marital sex, love, and childbearing
 - d. Growth in our own understanding of goodness, and evil, too, by contrast
 - e. These were God's way of wooing us towards Himself. These were God's ways of showing us how good He is.
13. After the fall, why do human beings seem to want to define good and evil for ourselves?
 - a. *(optional, for the leader)* How do we see that in the Bible itself?
 - i. Cain gets jealous of Abel, and coveted something of his (praise from God). Like how Adam and Eve became jealous of God, and coveted something of his (the ability to define good and evil).
 - ii. Cain does not need the serpent's external voice. Something has happened to him so that that voice or desire is now inside him.
 - iii. Cain blames Abel for 'making him feel angry.' Adam blamed Eve ('this woman') and God ('You gave me') for 'making him sin.'
 - iv. Cain killed Abel. Adam essentially divorced Eve.
 - v. But Cain refuses to receive God's mercy as mercy. He received it as a rejection of his first demand. Adam received God's mercy as mercy and so named his wife 'Eve' as a sign of hope, then lived in hope that God would send a redeemer to heal human nature and defeat evil (Gen.3:14 – 15).
 - b. How come we do things that we call 'evil'? At the same time, how come we do things that we call 'good'?
 - c. Do we even know how to define good and evil exactly? Or are we hunting for the real meaning of those words?
 - d. From the biblical story, what is goodness? What is evil?
 - i. Goodness: We are made in the image of God, who is good
 - ii. Evil: We keep defining what we do as good, even though we are inflicting harm on others. As long as those people aren't around yet to complain.
 - e. For more conversation ideas, see *Evangelism in the New Humanity Paradigm*, p.31:
<http://nagasawafamily.org/article-evangelism-in-new-humanity-paradigm.pdf>