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# Story of Evolution - Spring 2005 Forum

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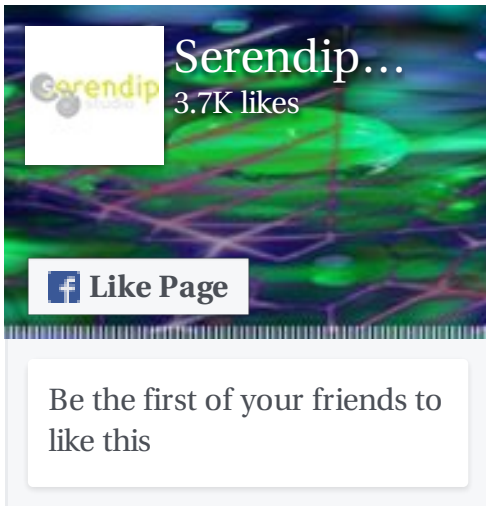
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## The Story(s) of Evolution

Name: Brittany P

Date: 2005-04-29 16:44:44

Link to this Comment: [14993](#)



## Story of Evolution-Spring 2005 For

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## Story of Evolution-Spring 2005 For

Brittany Pladek

Evolution of Stories

Final Essay

### The Story(s) of Evolution

Most evolutionary biologists agree that earth's first living organisms were prokaryotes---tiny, relatively simple cells that appeared somewhere between 3,800 and 3,500 million years ago (Mayr 44). These bacteria-like units lacked most of the internal structures that are familiar aspects of "cells" today: no nuclei, no chromosomes, no organelles whatsoever. They reproduced by splitting apart, moved via wiggling whiskers of protein, and lived basically everywhere that was wet, from deep-ocean sulfur

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Then, around 2,800 years ago, something drastically different happened. Writes Ernst Mayr, acclaimed evolutionary biologist: "the origin of the eukaryotes was arguably the most important even in the whole history of life on earth. It made the origin of all the more complex organisms... possible" (Mayr 47). Eukaryotes first appeared when certain greedy prokaryotes devoured other prokaryotes---then decided not to digest them. Instead, the consumed cells formed a symbiotic relationship with their predators, serving as mitochondria and chloroplasts (producers of energy); later, even more symbionts moved in to function as other organelles.

The advent of eukaryotes made possible (among other things) sexual reproduction. This evolutionary milestone allowed for greater differentiation among species via gene-sharing and gene-swapping. Such periodic rearrangements of DNA in turn led to a wider variety of genotypes, which led to a wider variety of phenotypes that could then confront (and hopefully

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survive) in a wider variety of environments.

Eukaryotes were also the first practitioners of true multicellularity. Writes Mayr: "There are many forerunners of multicellularity among the bacteria" (Mayr 49). However, simple groupings of cells couldn't work together towards a common purpose---the earliest "multicellular organisms" were more organizations than organisms. It took an increase in size and a concurrent "division of labor among the cells of such aggregations... [to merge] into genuine multicellularity" (Mayr 49). Among animals, the first multicellular organisms were simply layers of cells stuck together. Next came sponges, then flatworms.

Flatworms (Platyhelminthes) were simple, soft-bodied, bottom-dwelling scum-feeders. They were the first truly mobile multicellular animals; they subsequently evolved into more and more complex forms, adding

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mouths and muscles, and, eventually, vertebral columns and backbones.

The first true vertebrates were fish that somewhat resembled today's lampreys (users.rcn.com). These fish eventually developed full skeletons. Such skeletons allowed them to evolve fins, which, sometime during the late Devonian, grew into legs.

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Called tetrapods, the first four-legged animals didn't actually make it to land until the Carboniferous, when they hauled themselves out of the water and onto the beach as the first amphibians (users.rcn.com). Sporting lungs, limbs, and eyes, these semi-aquatic animals dominated the planet for most of the Carboniferous era. But as the Carboniferous became the Permian, the earth dried out, cooled off, and many semi-aquatic amphibians became completely land-adapted.

Though these Reptiles didn't look much different, their waterproof skin, hard-shelled eggs, and--- maybe most importantly---semi-divided heart gave them the tools that allowed them to control the planet for the next 235 million years.

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At the same time, however, a little side-branch of Reptilia began developing its own uniquely bizarre characteristics: warm blood, and fast-running legs held underneath (not on the sides) of the body. These were the Pelycosaurs, which became the therapsids, which finally became the mammals.

Mammals appeared around 180 million years ago, during the Jurassic---dinosaur heyday. Their

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warmblooded, hairy bodies, differentiated teeth, and ability to give live birth and nurse didn't really help them much until the late Cretaceous, when the dinosaurs disappeared and mammals leapt in to fill the lizards' (rather expansive) evolutionary niche (users.rcn.com). The first mammals were tiny, shrew-like creatures which lived precariously beneath the feet of giants.

During the late Cretaceous, when the mammals began their first serious diversification, some tree-shrews developed special adaptations to their life in the trees. These included prehensile tails, opposable thumbs, bigger brains, and stereoscopic vision (www.emc.maricopa.edu). These tree-dwelling creatures came to

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Around 55 million years ago, the early primates diversified into two groups: Old World Monkeys and New World Monkeys.

A few million years later (36 mya), the Old World Monkeys sprouted two side branches: the lesser and greater apes. Apes lost their tails and a portion of their arboreal flexibility; in return, they gained larger brains, longer arms, and the ability to walk upright for short periods of time (www.emc.maricopa.edu).

Sometime around seven million years ago, a few species of ape became fully bipedal. These were

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the first hominids, immediate ancestors of humans. Beginning with the australopithecenes, hominids gradually got taller, smarter, and faster (as their spines and pelvises straightened and their bipedally-adapted "back arms" turned into full-fledged legs).

Around four million years ago, they picked up tools. At two million years, they were using them to kill, skin, and consume meat. A few thousand years later, they spread out of Africa and into Eurasia. Finally, between 100,000 to 500,000 years ago, the first "true" *Homo sapiens* appeared. During some part of this long journey, self-awareness developed, and, after it, all the concurrent ingredients for civilization: language. Art. Social structure.

The rest, as they say, is history.

After that things were easy. Well, no they weren't they *did* work. I finished the obsidian knife and cornered the spot-tail at noon, sleeping off dinner the point through its skull; it started, tried to lick the blade. *Victory*. Silverfoot shied away too afraid to mate later that day, with as much still, he tried some spot-tail himself.

From that day forward we did more hunting. A followed the herds north, up the valley and across went. I got taller. My toes shrunk---from all the sometimes I would look behind me and imagine jungle. See it sprouting into its own forest, a vast

Wheat, hah. I was a lousy farmer, honestly. About hair, so I was glad when the cold came and we dismember a mammoth in under four hours. I hunting. I stayed in the cave and skinned the hide and bone. Then watched the hunting parties of wolfish men---mannish wolves---it was hard to saying it was because men *were* animals. Some

I stayed in the garment business even after the wool. The men hunted, governed, made war; I sold it for a cottage and, later, a loom. I acquired nature, some to disease, but most to other men bad. And the Crusades). My village became my evolved along with everything else---though, a religion for you. God, and Darwin, are as fickle parish lost its vestigial *h* and became my Paris awhile, sewing wigs for the Pigalle Theatre. Unlike liked my head, so I disassembled my loom and ju

It was a good choice. Europe exploded a decade until there was nothing left but exhaustion. My pond business consisted of various newspaper time through the Times. Font shrank; photos s tongues to devour half the page. Dewey beat T (questionable). Regan beat Russia (true, in its l warned John about this, but women don't writ dot-coms beat the economy (true), I got tired

Since, according to law, women could be hunt education. I was a little tired of men by that po enrolled at Bryn Mawr. And wrote. And wrote. It's not that different from weaving, in a way: y refine it, and braid it into something useful. So evolution, which I don't pretend to remember

But honestly, what's wrong with that? Evolutio along. No loom. No template. No lies (lies are i did it, Darwin did it.

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\*

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### **Evolution's Wrath**

Name: Austin And

Date: 2005-05-01 23:17:01

Link to this Comment: [15010](#)

## Story of Evolution-Spring 2005 For

### [The Story of Evolution, Spring 2005 Final Web Papers On Serendip](#)

Rehni looked up at the smoldering sky and wondered what had happened to humanity.

The once clear, blue atmosphere she had seen in very old photos no longer existed. The fluffy white clouds and the clearness of the blue had disappeared. It had always amazed her how something so magnificently large could be so gorgeous. The whole world could once see that sky, she used to think to herself, they were all so lucky.

But those days were long gone. The formerly crystal clear sky was now dense with smog. It was no longer blue, but an

ominous grayish-brown. It was the color of dirty dishwater - a color that had always disgusted Rehni. Now the entire world was steeped in its gloominess.

Rehni walked through the city and absorbed her surroundings. The houses she passed were in shambles. They were either deserted, covered in flies and maggots who were eating away at the dead bodies inside, or overflowing with sick people who were all grasping for the last strands of life they held within them.

The streets were overflowing as well, covered with bodies - dead and dying. Hospitals were much beyond capacity and doctor's offices were no better. People lined up wherever they could to get near someone in the medical profession. They all wanted medicine - something to take their pain away, their sickness away. They were willing to settle for anything. Everyone had learned to be so dependent on pharmaceuticals. They were miracle-workers, were they not? Fixing all of life's problems. Curing all of life's diseases. Making the world go round along with the people living on it.

Apparently no one had learned.

Factories worked away at synthesizing pills to try and cure the sick people. They worked day and night, releasing hundreds of different toxins into the air, giving it its gloomy and smog-ridden glow. Thousands of factories had been built across the country so that enough medicine could be made. People seemed to prefer a dirty and poisonous sky rather than dying from an illness. It's questionable whether their priorities were in line. The fear of death and disease seemed to have taken a hold over all of mankind.

The world was very different than the one Rehni immersed herself in through old photos and books. She longed for clean air, un-obscured sidewalks, and the tranquility that seemed to exist hundreds of years ago. She knew that even as long ago as two hundred years, the air was polluted and disease was prevalent. But that was nothing compared to what she had to live through. She was jealous of the people who could sit in the fresh salty breeze at the beach or camp in the sweet air of the mountains. She was jealous of the time when people could still function in spite of their disease.

In the year 2219, the present year in which Rehni lived, there were no such luxuries. The majority of people were sick and dying, only the lucky few remained healthy. Rehni was one of those fortunate few. She had a strong background of healthy family so her genes were hardy enough to withstand the mass epidemic of disease that was enveloping the world around her. She had seen friends and family die slowly and painfully, including her best friend who Rehni had known for 27 out of her 30-year existence.

Rehni had always had the desire to help people. When she was young, she daydreamed of curing all the diseases that swept the nation. She thought of how she would decline all the prizes and rewards, the hospitals and highways to be named in her honor, and the movie and book deals that would document her extraordinary life. She was going to solve all of the world's problems because she wanted to help the people near and dear to her as well as the anonymous ones on the street, not for the fame.

Rehni occupied her time researching and reading about what could have caused



the epidemic and what could be used for a cure. The people on the streets and in the hospitals - almost everyone - were suffering from diseases. People were afflicted with every illness from the common cold and flu to hepatitis, AIDS, and cancer, and anything in between. Many were ill fated enough to have multiple ailments.

A strong believer in evolution, Rehni soon realized that it was evolution - or the lack thereof - that had caused the mass epidemic of disease. With the creation of medicine, and the strong reliance on it through the twenty-first and twenty-second centuries, evolution had basically been halted.

According to the theory of evolution and natural selection, the fittest animals within a species will be the ones to live a long enough life to pass on their genes to offspring. Only those animals with genes that enable them to stay alive in the current lifetime will be able to pass on these successful and adapted genes to their young. These offspring, then, have the capabilities and DNA to live a long, healthy life - if the environmental conditions stay the same, that is. The weak and non-adapted members of the species die off and the strong and adapted ones live.

The human species, however, was unwilling to follow these rules, and this is what had gotten them into such a tragic amount of trouble, realized Rehni. This, paired with a virus's own following of the biological process of evolution. Medicine was keeping alive the weak members of society, allowing them to pass on their genes to offspring who were then in turn also weak. Society was no longer made of only the strongest who were able to

survive. It was composed of all members, no matter what their DNA encoded.

To worsen this already troublesome fact, viruses were at the same time evolving themselves to contain only their strongest members. Although humans had stopped evolution, viruses were continuing with a vengeance. They had even more to overcome and fight against with all the medications being used in the humans they inhabited. They were working to evolve into a super-strong strain by reproducing only the strongest and most resistant forms.

Each time a new immunization was introduced to the population, it would kill many viruses and therefore make it seem as if the human was now well. In many cases, however, the immunization would reach a particularly resilient set of viruses. They, in turn, would not be eliminated and the person would stay ill, infecting many other humans with the incredibly resistant strain. Because of these super-viruses, it became easier to weaken the immune system of the human they were infecting. These people, since they were unable to fight off the viruses, would then pass it on to the next immune deficient generation. It was an ongoing process.

The evolving and strengthening viruses also created new strands of new diseases. Because they were forced to generate resilient viruses due to the existence of medicine, they created new and different types that would send humans trudging to their deathbeds. Cancers, AIDS, hepatitis, influenza, measles, mumps, and all the rest of the critical diseases that appeared after the 18th century were created from that one wayward and evolving strand of virus.

Viruses were becoming stronger and humans were becoming weaker. Medicine was truly ceasing the process of evolution.

Rehni's desire to help people was still strong, even though she knew she would have to find another way to go about it. Clearly a panacea was no longer the solution. Cures were what had caused the epidemic in the first place. Something else was going to have to be done.

Rehni brainstormed and researched for months trying to find a solution. She desperately wanted to see the return of the fluffy clouds and blue skies, of the happy, healthy people walking through parks and neighborhoods. She wanted the pictures to be real - in her lifetime. She wanted to create her own photographs, to pass onto her children and other inhabitants of the once, and hopefully soon to be again, beautiful world she had grown up envisioning.

If only we hadn't started using medicine in the first place, thought Rehni. Then we wouldn't be in this predicament.

Unbeknownst to Rehni, for a few days at least, that was the answer to her own question. If she could go back in time and stop the creation of medicine and its mass use to cure the most basic illnesses as well the most complicated, starting with the common cold, then the fate of mankind would be much more prosperous.

Luckily for Rehni, time travel had been discovered in the late 2000s and perfected by the mid-2100s. It turned out that the process was really quite simple. It seems that time is actually a landscape, all laid out with any point in time always

in existence. The past is not gone and the future is actually happening. All of history and all of the future are in existence, even today in what seems like the present. Our current selves are in existence now, along with our six-month-old selves and eighty-year-old selves. They are all on the ongoing canvas of time together and simultaneously - to be visited, revisited, and retrieved at any moment. We are simply a dot in the landscape of time, able to move back and forth with ease among our own different selves.

In order to travel through time, scientists had invented the Time Adjuster. A crown-like device placed on top of the head, it had two dials and a switch on the outside. The dials specified how far backward or forward in time the person would like to go. One of them changed the measurement of time - hours, days, months, years, centuries - while the other changed the numeric amount of time - one, two, three, etc. The switch was to choose whether the traveler was going back in time or into the future. Simply changing the dials to reflect the amount of time you would like to travel through, pushing down both dials to the locked position, and flicking the switch to history or future sent the time traveler plummeting through history or the future.

Not just anyone could gain access to the Time Adjuster, however. They weren't sold in mass amounts to the public, but kept to the scientific community who mostly used them for research or if other scholars had a good reason for its use. Luckily Rehni, because of her passion for science and research, knew a vast amount of the scientific community and had worked with one of the scientists who was on the Time Adjuster research

and usage team at the local university.

A few days later, after formulating her proposal for use of the Time Adjuster, Rehni ventured through the dying masses to the university to speak with Dr. Fairmount, the scientist with whom she had worked.

Dr. Fairmount was also troubled by the epidemic of disease, just as Rehni was, and agreed to let her use the Time Adjuster in hopes of bettering the world. She was going to change the entire course of evolution and he was happy to assist. He placed the Time Adjuster on Rehni's head and flipped the switch to history. He then clicked one dial to centuries and locked it, then clicked the number dial five times and locked it. He wished Rehni luck and stepped back, taking in the last moments of what he knew and understood and prepared to disappear into the pages of time.

Rehni braced herself as she stood in Dr. Fairmount's lab while a tear rolled down her face. She was both excited and scared. She was going to change the world, change history, change the future. This was no small journey. Rehni, alone, on one seemingly normal and insignificant day in 2219, was going to save humanity. The world was in utter chaos and she was going to fix that.

She stood in the lab and watched history pass. Five centuries of time swirled around her at warped speed. She saw people talking, children playing, people building. Rehni saw everything that had happened over the past five hundred years in that one spot on which she stood. She was mesmerized.

Suddenly everything stopped. She looked

around and it was clear that the Time Adjuster had worked. There was no doubt that it was the 1700s. The people, the clothes, the architecture - it was beyond obvious. Rehni couldn't help but smile. Here I go... she thought to herself. She stepped away from the spot where she had landed and carefully placed the Time Adjuster in her backpack. Now it was time to stop the detrimental creation of medicine.

After some wandering, Rehni headed for the antiquated scientific lab where the medicinal research was taking place. She had found the address in a medical history book she consulted before her journey. Rehni found the most brilliant scientific minds of the century all gathered in a room discussing their research. She immediately shared her story and explained her research findings with them after a brief introduction. She told them she was from the future and that the use of medicine had halted a process called evolution (a process that she had to explain in great detail since Darwin's work had not yet been published) and created an epidemic of disease. Rehni showed the scientists pictures and documentation and told them if they destroyed the medicine, humanity would be saved.

Completely fascinated, albeit extremely skeptical at first, following five long days of in-depth conversations and detailed evidence revealing, the scientists eventually believed Rehni. Only after she had successfully proven that she was a real person who had come from the future with accurate research and a strong desire to make the world right again, did their skepticism die. She had finally won the scientists over with arduous persuasion and they agreed to

cease the research on and creation of medicines and immunizations. All the medicine they currently possessed was destroyed and the entirety of their research findings and experimental data were filed and locked away securely. Stored with them was a detailed explanation backed by data that justified why the use of medicine should not be employed in society, in case the files were accidentally uncovered one day in the future.

Afterwards, the scientists showed Rehni to an empty room where she could use the Time Adjuster to return to the year 2219. She smiled and thanked them again, reassuring the scientists that they had made the right choice and were changing the course of history in the most positive way possible. After they left, Rehni removed the Time Adjuster from her backpack and flipped the switch to future. She turned one dial to centuries and locked it, then turned the other dial five times. She placed the Time Adjuster on her head and slowly locked the second dial. She took one last look around and felt a sense of pride and excitement build up inside of her. She was only moments away from discovering what the world was like now, thanks to her efforts.

Time passed her by again at warped speed. The view was different this time, since she had made such an integral change. She was able to witness the new evolution of the people living in the spot where she was standing. So much was different and new. It whetted her appetite for the final result she would witness and the new world in which she would live in the year 2219.

All of the sudden, time stopped swirling.

Rehni was left standing in an unknown place overflowing with objects she had never seen before. The room she stood in was made entirely of metal. It was very stark but full of what seemed to be scientific instruments and devices - nothing she recognized. Rehni felt unnerved and scared, yet overjoyed that clearly some sort of difference had been made. Just how big, she was soon to find out.

She exited the room and walked down the pristine hallway. Everything was immaculate, but the hall was beautifully decorated in gorgeous colors and paintings. Metal and white seemed to be two favorite looks, but the color that was spattered about was rich and clear - some of the most beautiful colors Rehni had ever seen.

She opened the large metal door of the building and sunlight streamed inside and blinded her with its whiteness. She lifted her hand above her eyes and squinted, stepping out of the door and onto the stoop. She looked around and gasped in surprise and awe. Her jaw dropped and she simply stood there taking in her new surroundings.

The sky was the most magnificent and clear blue she had ever seen - so much clearer and bluer than even her favorite photographs in which she longed to live. There were only a few clouds disrupting the clarity of the atmosphere. They were thin and wispy, almost translucent, but nevertheless a clean, cottony white.

The sidewalks were filled with people milling about. These people were happy and healthy. They were all tall and slender, strong looking. Many carried metallic, high-tech looking briefcases



with LCD monitors on the outside of them. The monitors showed everything from the time of day in a decorative and interesting design to news programs informing the carrier of the daily happenings around the world. Most of the people looked as if they were talking to themselves, but were actually holding conversations using the cellular phone devices that were implanted into their heads. Robots wandered the streets doing the low-wage and simple-minded jobs that the uneducated members of society once held.

The cars on the road were compact and fast. They drove themselves using an automated system that followed laser rails in the roads. The people inside just sat back and relaxed, reading the paper or sipping their coffee. People were appearing and disappearing constantly. They were using travelable transporters that allowed them to move from one location to another with just the touch of a button. There were shops where people were plugged into computers and were downloading information into their brains. They were downloading books, mathematical equations, how to do karate, how to ice skate, and anything else someone could imagine having the desire to learn or know.

Rehni was quite taken aback by all of this. Everything was so different. Clearly mankind had evolved to an even better species than she could have ever imagined or hoped for. As she walked through the town, Rehni let the surroundings penetrate her entire being. She explored the whole city and talked to as many people as she could.

Rehni learned that humans had evolved into a super species. There had been no

disease in centuries, only a few hospitals remained in existence since they were in general no longer needed. Medical records showed no existence of AIDS, cancer, hepatitis, measles, polio, influenza, or anything of that nature. Illness had ended with the common cold in the 1900s.

Apparently after 200 years of not treating the common cold, it had become extinct. The cold virus infected its host and eventually killed them, often before the host could reproduce. This was perfect for the process of evolution. In time, only the people with cold resistant genes passed them along to offspring. Slowly, the weak-gened humans all died off and left only those who were strong enough to resist the virus. Since the viruses no longer had hosts, they died off as well, becoming extinct and leaving no other strands behind to grow and evolve into other detrimental and deadly diseases. Although the process was somewhat lengthy, there was no epidemic of the common cold or any sort of dangerous or problematic occurrence that happened while the virus slowly killed off its weak hosts and then eventually killed its own self.

The human species was also extremely intelligent thanks to their new reliance on evolution. No one was unintelligent or disabled in any way. The advanced strides they were taking as a whole were practically unfathomable to Rehni and her prior understanding of what was possible, in the present and in the future. Technology, transportation, and the gathering of more knowledge were amazingly sophisticated. Robots had been invented and used for over a century. Computers were miniscule and could do just about anything asked of

them. The entire country operated on wireless connection, and cars could practically think for themselves.

Every person was employed and jobs were plentiful. Education was revered and crime was nonexistent. It was a near utopian society, filled with supremely intelligent people and technology. It was exceptionally perfect.

Rehni had taken in all the information she could for one day. She would resume tomorrow. For now, she wanted to sit and relax - and take in the beautiful view of the world she had essentially created.

Rehni sat down on a self-swinging park bench in the center of the city, surrounded by bright green trees and under the surreal blue sky, and smiled with satisfaction. I've saved the world and changed the course of evolution, she thought to herself.

What should I do next?

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**Through Camille's Eyes: Prancing In and Out Time,**

Name: Nada Ali

Date: 2005-05-03 20:26:21

Link to this Comment: [15030](#)

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a>.

From the moment of conception, gender is determined by the science, religion and literature that encourage it. We are born, as male or female, boy or girl and become man or woman, heterosexual or homosexual. The boxes man has created for himself lay the basis for the formation of our identity, social, economic and political roles and our inescapable future. No aspect of life escapes the gender we embody. From prehistory to religion, to science and technology, literature and poetry and the infamous legal and moral codes that pervade our life in so many countless ways, they all help determine and classify our gender. Ever fill out a form and one of the first questions asks you to categorize yourself as male or female. I would think that one has done that mindlessly more times that one can count or imagine. Many would argue that distinct categories are essential and a part of life and questioning their existence only means that we are questioning for the sake of doing so. Hence, the question becomes, who am I? Do I not exist if the categories don't apply? Am I invisible or just simply an anomaly that need not be accounted for? This is the story of my life, these are questions that perplex me and these are the people that tried to make sense of who and what I was.

It was a warm and sunny day. The light breeze hit my pale skin as I walked along the side of a beautiful and rigid cliff. The ocean sparkled in endless scorn as the sun glistened its calm exterior.

Underneath the calmness of the ocean laid a quiet storm of fault lines and tectonic plates, pressing up against each other, only to erupt into the calmness in a moments notice. I liked the sea. I liked the way it smelt, the way it deceived and

the way it spoke to me. I was a quiet storm, a soul with no place, yet with so much to say. Beneath my silence was a tumultuous bottomless pit of whirlpools of emotion and pain. I was the ocean in so many ways. Bottled up inside me lay the secrets, the fault lines, the insecurities, the homelessness and the engulfing emotions of nature's treachery. I was a woman and yet a man. But there is no names for me, for only freaks understand me because I know and they know that I am nothing if not one of them.

In many ways, the only thing I do have is a name. A beautiful name, which captures every memory I have of my past life and every moment I have to cherish. My name is Camille and that is who I am. Like the ocean, I too live in the vastness of obscurity and delusion. That's why I like coming to the seaside cliff that is one day going to be my fate. As I sit on the cliff's edge and think about what would happen if I were to slip. But I haven't slipped just yet and so I really don't know or perhaps I do and just don't want to commit the sin that will compel me to greater hell. Would it be better or worse? Have I not been punished enough, I wonder. As I stare into the ocean, I lapse into my slumber sanctuary. I lose myself in the enormity of the blue ocean and I remember my suffering and fate and I accept again and again.

I was born in the eighteenth century in a small village in France. I was an ambitious young individual and legally pronounced a woman at birth. I was neither pretty nor ugly but I was loved. Loved by my hardworking mother and my best friend and lover, Sara. It was more love than I needed or wanted, enough to last me through the annals of

time and space. The tenderness of Sara's touch invoked only the greatest memories. I could not have asked for anything more. For her and my gracious mother, I am eternally thankful and hateful. While I was born a girl and became a someone I was met with a surprise that didn't necessarily astound me. At the unsettled age of 19, the courts and science pronounced me a man because I had the hidden genitals of a man and the traditional desires for women in the ways only men can. I suppose I am a man by body and desire, and a woman by mind and spirit. I guess I am what they call, a hermaphrodite. I may not like the description but for you out there it is the closest you will get to understanding me. I tried to avoid telling you but society made me tell. You made me tell. I could hear the voices in your head, wondering and trying to identify where I would fit and belong, as though I'm a part of a puzzle, you do not have the piece for. Fear not though, I have been here before. It is not your fault, it is what you have been taught. You don't know better, nor do you understand and I don't expect much of you. After all even, "science does not have the gift of miracles, and even less does it have the gift of prophecy," (Barbin; 39) so how can I blame you.

I thought science had all the answers. I had worked in a school before I turned into a man. Science was taught there with an authority of religion. They both were the truth and hence, had the answers to the questions that have troubled our minds since the beginning of time and space. I met one such man among many others. He was different and not in the most admirable way. But he stays with me. His name was Dr. Ernst Mayr, evolutionary biologist, proudly

hailed as the "Darwin" of his century. A proud man he was, filled with the knowledge I did not possess and furthermore the knowledge I did not fit. For him everything was science, God was the fallacy and evolution was a fact. I met him through my doctor. We were all attending a seminar at Harvard University in Boston. What a glorious city it was. History, duck tours, shopping malls, great food and so many young people adorned the streets of this American gem. It was exciting and beautiful until the seminar with Dr. Mayr.

As I walked into the room filled with men and women of all ages, their eyes shifted on to me as if I was a circus freak. I looked around the room uncomfortably, searching for a friendly, unimposing face. But I found no solace, in a room full of scientists and Gods. The plain white walls, the dark brown roundtable with the black leather chairs and the most fluorescent white lights I had ever seen, the room welcomed nobody, especially me. As I struggled with the glances and the whispers, I managed to find a seat near an old man with grayish white hair and the harshest wrinkles I had ever seen. Every line on the man's face had a story, but in a room full of scientists I knew my story would be deemed a folk tale. Wrinkles were a part of our biological transformation into old age and here I knew nothing.

Dr. Mayr was the presiding chair of the seminar. Alongside him, sat another distinguished gentleman, Daniel C. Dennett. Before I forget, I should perhaps mention that the seminar was about the "social and biological place of hermaphrodites." I was their subject of analysis but even here I didn't have a

voice. Dr. Mayr began by introducing the some 20 people in the room and then proceeded to lecture. I will not bore you with the details of these lectures and their rebuttals. Science has a way of finding an answer that suits the minds of those who understand it but distances the emotions that it invokes in our hearts and souls. But I will summarize what he said because in many ways it is these views that shaped my external identity. Dr. Mayr, insisted on classifying me as one of the two genders. He kept emphasizing that I was biologically a man and hence, should become a man through hormone therapy. Furthermore my attraction to women fueled the pressure to socially adapt to becoming what biology had intended my body to be. I cannot lie. The very thought of being someone, comforted me at first. I wanted an identity, an answer for the question on all those legal forms; a place to belong that would help me operate in society with some degree of normalcy. This however, didn't last very long for the longer I heard them the more I wanted to be something else. As Mr. Dennett spoke and the memes pervaded my mind, they forever grounded me in my own reality and reminded me that I was different and evolution was stumped and the mutation was to be my downfall.

My memory fails to remember the excruciatingly boring and almost painful details of the biology I had everything to do with, but just one quote, used by Mr. Dennett, forever strikes a cord in my understanding of assimilation into a world that must give me a name to be at peace with itself. Mr. Dennett said, quoting Charles Darwin, "Thus at last man comes to feel, through acquired and perhaps inherited habit, that it is best for him to obey his more persistent



impulses. The imperious word ought seems merely to imply the consciousness of the existence of a rule of conduct, however it may have originated."

(Dennett; 494) My persistent impulse had been to become one of the two classifications of gender to ease my journey through this life. I was to be one of the two or forever lie in silence. Even with this understanding I was silent as Mr. Dennett discussed the role of memes as the new kind of genes. Memes were ideas and in essence the vehicles of ideas that invaded our brain and took root in it. The memes of Mayr and Dennett invaded my brain as I walked out of the seminar in a state of disarray. Society may have made me a woman, but I was biologically a man and in order to live as a normal human being with a wife and a lover with aspirations and dreams, I had to succumb to the social and biological dictates and the standards set by my genitals. I was a man and Mayr and Dennett had deemed me so. Who am I to fight the authority and classifications of scientists and Gods?

Suddenly, I felt a slight nudge. I was awoken from my slumber. As I looked up, the sun shone brightly into my eyes. I quickly shut them. Drowsy and confused, I opened my eyes, guarding them with my hands. It was Cal! Wearing his signature brown corduroy pants with a cream colored shirt, his eyes met mine in a silent hello. Cal and I had been a part of a support group for hermaphrodites and intersex individuals. As he sat down next to me, at the edge of a cliff, silence consumed us. But it was okay. We never needed to talk, he understood me and I him. As we sat and stared into the horizon, I felt comfortable and secure. My silence didn't derive itself from my pain, but strangely from the comfort of

another like me. Cal had once been Callie, just like I had once been Camille.

In many ways, I still was Camille, but Cal was never going to be Callie again. I envied him. I envied his strength, courage and resolve but most of all I envied his Julie. With the onset of my 'condition' came the loss of Sara, but Cal had accepted society, conformed and lived his life as another with the beautiful Julie. He wasn't dramatic or overtly emotional about his past. It didn't haunt him. He just accepted it and never looked back with pain or suffering, he only looked back with acceptance and the appropriate emotions of the time. Perhaps his happy childhood was the cause. I had not had one. I wasn't ever free of the demons that possessed me. Without them, I wasn't me. My demons formed me and were simply a part of me.

Suddenly, without a word, Cal stood up. He looked onto the ocean, probably wondering about his grandparent's journey from Greece, the mutation they had wed in genetic matrimony and his parents. There was calmness around him; his acceptance of himself and his unique situation was reflected in the calm exterior of the ocean. He sighed, not out of sadness or pain, but out of awe for the beauty around. Without looking directly at me, he turned around and slowly walked away. Cal had never understood why I wasn't able to live with myself. He always wondered why I couldn't accept my childhood as it was and my adulthood as it is. He has read my memoirs and was probably disappointed in me or maybe he wished he were able to be emotional and let go of his pretenses about his so called happy life. I honestly didn't think so but hoped in some ways that he too envied me. But

then again, in many ways, I wanted to be the only one who felt the pain I felt. I didn't know why I wanted to keep my pain with me. Whether it was because I didn't want anyone else to experience my pain or because I sadistically enjoyed it, I didn't know. All I knew was that I felt like I was an outcast, a stone cast away to the side, left undisturbed with a heaviness that no one saw in all my lifelessness.

Out of the stillness of the picturesque view and warmth of the slight breeze, I felt a presence. I didn't know what or who it was. As I looked around, all I saw were beautiful palm trees and a lush garden filled with the greenest grass I had ever seen. My eyes searched for the presence but saw nothing. As I turned my gaze towards the cliff, I walked towards the edge. As I looked down, I saw the rugged and jagged cliff side. The calmness of the ocean from the viewing point was lost here, as the waves crashed into the side of the cliff, spraying water into the air. I could see myself falling, hitting the bottom with an awful thud, only to be washed away by the pull of the oceans thrust. It would engulf me into its arms and beneath the calmness; I would see its true colors. Its belly filled with a savage world where I too would become prey to the lustful hunger for blood within its soul. I could feel the ocean watching me and as I edged towards the ocean as if I were stepping off a curb, a hand grabbed me.

Startled, I looked below at my dangling foot. All of a sudden, I felt scared as I watched the little rocks underneath my shoes fall towards what looked like a raging ocean. The sun was now setting. The water looked as though it was drenched in the blood, as it devoured the symbol of all life, the sun. Darkness was

descending and I seized the arm of the person that had grabbed me. The person helped me to the side and I gasped for air as I realized what I was doing. It suddenly became cold and I felt myself shivering. Slowly I looked up to get a good look at my savior or perhaps interrupter, who was this that cared enough to save me.

Not one word escaped the mouth of this person. I couldn't tell if it was a he or a she. He/she looked like a modern Robin Hood, wearing black tights and a beige oversized shirt, my savior had the face of an angel and the silence of my soul. There was a twinkle in his/her eyes and the slender structure of his/her body allowed me to assume silently that it must be a woman. An awfully strong woman, but definitely a woman. I looked upon her and asked her whom she was and she answered with an air of confidence and the authority of importance. "I am Orlando," she said. Before I could inquire any further, she sprung up, held out her hand and walked. I didn't know where she was taking me or why. As she skipped through the trees, I felt an overwhelming need to run. Hence, my skip became a run and I ran like I had never run before. I wanted to cry, but I couldn't, I wanted to scream, but I had not the voice and I wanted to fly but I had not the wings. And then I stopped. I couldn't breathe, my clothes were torn, my body ached and I was cold. But there she stood, her silhouette was haunting and I couldn't see her face. I sat down, I felt like she knew me, my hurt, my pain, my desires and most of all, my secret.

I gazed up at her; she had such a penetrating gaze. It pierced the very core of my being and everything. I was scared as to what she would find, scared most of

all of what she may not find; my soul. She looked upon me and said the words I will never forget; "dear Camille, it is not in our physical state that we live our lives, but rather in our souls and selves that we are alive. Do not think that you are alone, for everybody has a little bit of everything. It is what you feel like being that makes you who you are. That is who you are and you may change your mind tomorrow but let that not deter you from being who you are today. Listen to the ocean roar, embrace the sunlight, run through the meadows and climb up those mountains, because soon we all change. Look at me; I am neither a she nor a he. I wasn't born as one and I will not die or be remembered as one. All I want is who I am in the moment and I have a million selves all searching in time and space for fires that ignite my being. Do not fret, be yourself and may your soul rest in peace." And with these profound words, she vanished into thin air. I searched and I searched, there were so many questions I needed answered. But standing there in the middle of nothingness, I found no other.

As I walked back towards the road, I saw couples holding hands, children playing carelessly, dinners in the patio, cinema lights, cigarette vendors, gas stations, movie posters and wonderful little beach stores. Happiness, joy, sexuality and gender, oh they had it all. As I walked down the most vibrant street in the little beach town, I couldn't help but feel sorry for myself. Orlando may have been right. Perhaps it wasn't that important to have a gender. But then I thought again about all the people I had met in my long life as a wandering soul condemned by the Gods to eternal pain because of the suicide I had committed in the eighteenth century. Oh God, did I forget

to mention that. Oh please, don't be surprised; I am as dead as I was when I was alive. Even when science had deemed me to be alive and kicking I was as dead as I am today. I wasn't noticed then and I am not noticed today. I roam the Earth condemned by the universe and God, denied by the scientists that prod and poke my kind and my memory in life. I am hopeless and silences because in this world and the next, I am nobody. Even the worms and the maggots forego my skin, as I rot in the grave that I never inhabited. I am what I am, and no matter how hard I try I find myself at the edge of that cliff time and again, committing the sin whose punishment I cannot escape. It mars my name in death as my condition marred my name in life.

I've thought of the countless times I had witnessed the time of birth and the determination of gender via our physical appearance. In the last fifty years or so, they invented the ultrasound and now they determine gender even before the child is born. Our genitals serve as a marker of who we will become as we pass through the stages of growth and life. From the slap on our bottoms at birth, to the moment we close our eyes in death, our gender remains constant and society demands that it does so. I had tried to see my life differently, but every time I committed the same mortal sin and every time I returned to this wretched life in between the heavens and the Earth only to relive the horror of my past. I cannot escape my pain. I cannot breathe. I wander endlessly and ceaselessly into the darkness. The warmth rejects me, my paleness astounds me and my lack of compassion for myself denies me solace. Denies me into abandonment, loneliness and scorn for all of eternity, until the

scientists and the Gods, find an end for us all.

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### **Resisting the Clock: Dissolving Time in Virginia W**

Name: Annie Sull

Date: 2005-05-05 14:59:33

Link to this Comment: [15049](#)

## Story of Evolution-Spring 2005 For

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Virginia Woolf's work, *Orlando*, seeks to overturn our systems of classification. Woolf creates a space in which the either/or dialectic disintegrates—a space where, as literary critic Elena Gualtieri notes, "quite literally anything goes - even the outlandish idea of a sex change accompanied by a life that comes very close to being eternal" (5). In *Orlando*, Woolf indeed violates the 'logical' categories that we have internalized and for which we continue to search. She explodes 'fixed' oppositions such as male/female, author/subject, farce/criticism, and history/fiction. Refusing to select a single category, Woolf throws out this binary logic altogether. Woolf's most defiant act against classificatory systems is perhaps her treatment of time, which impacts all other dichotomous relationships in the novel. Woolf rejects a conventional view of time, in which time is neatly divided between the past, present, and future. She instead adopts the "Block Universe" model, the simultaneous existence of all time, erecting a "timescape" in which time does not pass but accumulates—the past exists alongside the present (Davies qtd in Dalke(3)). Time, in *Orlando*, is not disjointed, but fluid and eternal. As Woolf dissolves temporal barriers, she achieves a strong union between Orlando's seemingly dichotomous selves, between author and subject, and also between her own writing and that of her literary ancestors.

Woolf depicts the clock—the measure of "Conventional" time—as Orlando's antagonist. Orlando's internal experience evades 'real' time. The ringing clock is, in



fact, what continually disrupts her rich, subconscious musings. Woolf often goes so far as to describe this 'interruption' as an assault, as when the clock rings "the news of [Sasha's] deceit" (10)., for example, or as it marks the dawn of the present moment: ". . .the clock ticked louder and louder until there was a terrific explosion right in her ear. Orlando leapt as if she had been violently struck on the head. Ten times she was struck" (284). Each "explosive" and violent chime of the clock constrains Orlando's 'lived' experience. There is indeed no correspondence between internal and 'actual' chronology in Orlando. Not only does she end up a 36 year old woman who has lived for over 300 years, but Orlando also seems uninterested in the 'passing' of time (sitting under the Oak tree, the young Orlando would "try to think for half an hour, or was it two years and a half?" (97). 'Real' time is arbitrary—a fact that often disorients the reader, who is still marching to the ordered ticking of the clock. Woolf explains the limitations of measured time:

But Time, unfortunately, though it makes animals and vegetables bloom and fade with amazing punctuality, has no such simple effect upon the mind of man. The mind of man, moreover, works with equal strangeness upon the body of time. An hour, once it lodges in the queer element of the human spirit, may be stretched to fifty or a hundred times its clock length; on the other hand, an hour may be accurately represented on the timepiece of the mind by one second (Woolf 94-95).

It is the "timepiece of the mind" that interests Woolf—time that is measured as it is experienced. She rejects the unilinear narrative that is marked by distinct, evenly spaced 'moments.'

In resisting the clock-abiding narrative, Woolf dismantles the kind of temporal schema that lures deconstructionist critics. Orlando seems to accomplish the project which theorists such as Derrida pursue: the disassembly of the linear narrative, the deflation of the myth that time is a progression of isolated, 'pure' moments. Deconstructionists turn to the 'origin' as the quintessential space for this 'mythologizing.' The origin, they argue, narrates its own history, operating as a distinct moment that excludes the past and future. Literary critic Mark Currie notes, "It [the origin] is, in a sense, an easier moment to mythologise as presence because nothing comes before it, and at the time it occurs, it has not yet been marked by subsequent moments" (2). The origin is separate, distinct, and 'pure.' In the linear narrative, time seems to progress through a series of these distinctive moments.

"Presence" in Orlando, however, is never independent of that which antedates or follows it. Woolf rejects this notion of the 'exclusive' moment—of a cleanly separated past and present. She instead parodies the dramatic and irrevocable 'moment.' Woolf's description of the transition between the eighteenth and nineteenth centuries, for instance— with the total darkness and the "turbulent welter of cloud" (10) covering the entire city—satirizes our conception of the exclusive 'moment.' The novel's central point of transition, Orlando's gender transformation, also parodies the concept of a 'defining moment.' The biographer's theatrical illustration of the transformation (with the sounding trumpets and the three Ladies Chastity, Purity, and Modesty) is juxtaposed by Orlando's placid reception of her body ("Orlando looked himself up and down in

a long looking-glass, without showing any signs of discomposure, and went, presumably to his bath (133)). The biographer's dramatic narration attempts to lodge the moment of gender change between Orlando's 'distinct' male and female selves. Yet Orlando's composure upon awakening shows that change does not occur instantaneously, and that a single 'moment' cannot be extracted from time.

Transitions in Orlando are not moments of instantaneous change during which the past is extinguished. Change instead occurs through a process more like Hegel's concept of "sublation." To 'sublate' means to both terminate and preserve. The sublated is a moment of both 'coming to be' and 'ceasing to be'—a state in which opposites coexist. That which is sublated may lose its immediacy, but it is not obliterated (6). Similarly, Orlando's boyhood self exists within the Victorian Lady, both of whom exist within the motorcar-driving woman of the 'present'. Images of the past—of the poet, of Sasha, of Queen Elizabeth—do not fade with the passing of 300 years, but remain impressed as living memories upon Orlando's mind. This collapse of time is most evident near the end of the novel, as the narration reaches the 'present' time. As Orlando descends within the department store lift, for example, peering out the glass doors, the past invades the present. The biographer records:

Omnibus seemed to pile itself upon omnibus and then to jerk itself apart. So the ice blocks had pitched and tossed that day on the Thames . . . 'Time has passed over me,' she thought, trying to collect herself . . . Nothing is any longer one thing. I take up a handbag and I

think of an old bumboat woman frozen in the ice. Someone lights a pink candle and I see a girl in Russian trousers. When I step out of doors—as I do now," here she steps onto the pavement of Oxford Street, 'what is that I taste? Little herbs. I hear goat bells. I see mountains. Turkey? India? Persia?' Her eyes filled with tears (10).

The past is not sealed and dislocated from the present. Metonymical associations overwhelm Orlando, as Oxford Street becomes the setting for all of her experiences, however geographically or temporally distant.

Woolf's treatment of the past resonates with Michel Serres' *Conversations on Science, Culture, and Time* with Bruno Latour. In the "Second Conversation: Method," Serres criticizes our easy designation of the past as something 'antiquated', 'out-dated', and 'bygone.' The notion of 'passing' time, according to Serres, invokes competition and legitimizes the belief that the present is "at the summit" of a linear process (9). Serres explains that 'dialectics [are] nothing more than the logic of appearances' (49) and that "History is the projection of this very real exclusion [of the past] into an imaginary, even imperialistic time" (50). Serres is not interested in recovering an accurate history, but in allowing "bygone history to be lived again now" (54). His goal is not to time travel backward and understand exact historical contexts, but to bring the 'obsolete' to current dialogues and scholarship. Serres desires the kind of 'timescape' that Woolf establishes in Orlando. As the Renaissance boy awakens in the Marshall & Snelgrove's department store, searching for Sasha, the (literally)

'antiquated' is brought to the present. Interestingly, this process is often reversed in Orlando, as the future is carried into its own 'history.' We glimpse the 'future' during the biographer's foreshadowing of Orlando's sex change, for example, and when Orlando's arms "sang and twanged as the telegraph wires would be singing and twanging in twenty years or so" (10). Woolf's writing erects the kind of 'timescape'—allowing the past, present, and future to coexist—which Serres advocates.

Complementing this collapse between Orlando's past and present selves is a breakdown of narrative levels—a merge between writer and subject. The biographer's time continually interrupts the narrated events, for example, serving as an underlying rational voice (36), or discussing the biographer's task, (63) the state of historical documents (115), or the different 'methods' of writing (254). Woolf's time literally invades the text during one of her meditations on Nature. She writes, "Nature, who has played so many queer tricks on us . . . so that even now (the first of November 1927) we know not why we go upstairs, or why we come down again . . ." (75). Woolf's direct insertion of the current date—the exact moment of composition—draws attention to the coexistence of writer and subject. Literary critic Debra Malina would understand Woolf's writing as 'metaleptic:' the invasion of the author into the text causes a 'blurring' of narrative levels. Along with the biographer, Woolf herself, enters the text. Creative power is distributed as the author and subject mutually construct one another.

In addition to Woolf's direct arrival onto the textual landscape, the 'biography'

often has the air of an 'autobiography.' Orlando, for example, is the fictional representation of Woolf's love, Vita Sackville-West. Nigel Nicholson, in *Portrait of a Marriage*, calls Orlando "the longest and most charming love-letter in literature" (8). Orlando embodies and enacts all that Woolf found intriguing in Vita: her noble and romantic ancestry, for instance, her daring cross-dressing escapades, and her sexual and social mobility. Woolf links fiction and fact through the inclusion of personal memories, descriptions, even photographs of Vita and her family (101). Woolf's diary, in which she imagines the inclusion of all her closest friends within Orlando, further indicates this strong connection between writer and text. Woolf writes:

One of these days, though, I shall sketch here, like a grand historical picture, the outlines of all my friends . . . It might be a way of writing the memoirs of one's own times through people's lifetimes. The question is how to do it. Vita should be Orlando, a young nobleman. There should be Lytton. & it should be truthful; but fantastic. Roger. Duncan. Clive, Adam. Their lives should be related (Woolf qtd. in Gualtieri 115 (5)).

Woolf's vision of her friends transformed into literary characters—both 'truthful' and 'fantastical'—reveals the profound connection between her "social and artistic ambitions" (115). In *Orlando*, Woolf's faithfulness to Vita's character serves as this link between fiction and 'truth'—between author and text. The union of these traditional 'opposites' enriches the 'timescape' that Woolf creates in *Orlando*.

In addition to her interest in [Vita's]

family lineages, Woolf is also concerned with her own literary ancestry. Gualtieri argues that Woolf's objective in *Orlando* is to "reinvent" her own "genealogical tree as a fantastic interpretation of the history of English literature" (Gualtieri 105). Woolf's reading of literary evolution indeed runs parallel to *Orlando*'s own changes. Woolf's treatment of her forerunners is fanciful, as she explains in her diary: "Satire is to be the main note—satire & wildness . . . my own lyric vein is to be satirised. Everything mocked. I want to kick up my heels and be off" (Woolf qtd. in Bowlby xiv (1)). Satire is indeed "the main note" of *Orlando*. Woolf parodies English literature through the ages, as in the Masque scene (during which *Orlando* becomes a woman), for example. She also satirizes the tendency to exalt past styles while denouncing contemporary ones (represented by Nick Greene (10)); she parodies Victorian verbosity and sentimentality (248), and the foolish exaltation of 'masters' such as "Addison, Dryden, and Pope" (189).

Woolf's use of parody is not, however, a simple relegation of past styles to antiquity—to a 'bygone era,' as described by Serres. Woolf's inclusion of her own predecessors is a complex act of preservation rather than an attempt to extinguish her literary ancestry. Just as the "boy. . . the Ambassador . . . the Gipsy . . . [and] the Fine Lady" (295) all compose *Orlando*'s 'current' self; Shakespeare, Dryden, Pope, and Tennyson likewise exist within Virginia Woolf's pen. Parody, it seems, is the perfect mode of 'preservation.' In her diaries, Woolf comments on her use of satire: "I want fun, I want fantasy. I want (& this was serious) to give things their caricature value . . . the truth is I expect I began it as

a joke and went on with it seriously" (Woolf qtd. in Dalke (3)). The caricature, for Woolf, is not a reductive act, but a critical representation. Parody signals both change and conservation—it denotes the quintessential tenet of evolutionary change: "descent with modification."

Simon Dentith calls this the "parodic paradox:" "Parody . . . preserves as much as it destroys, or rather, it preserves in the moment that it destroys—and thus the parasite becomes the occasion for itself to act as host" (4). Dentith's metaphor for this paradox—the role reversal between parasite and host—describes the complex relationship between Woolf's own writing and that of her literary ancestors. Dentith shows how the imitation ironically finds nourishment in that which it seems to resist. As Woolf parodies the blushing, decorous Victorian lady, for example, she literally brings nineteenth-century writing to her own text. Woolf's use of imitation creates an ongoing, reciprocal conversation between past and present styles. As Dentith explains, "Parody and parodic forms more generally are inevitable maneuvers in the two-and-fro of language . . . hypotext never existed without . . . the parody . . . (189). Accordingly, the parody precedes the original—or perhaps, because it may be anticipated, it already exists within the 'hypotext.' Woolf shows that parody need not be used as a surrogate; but rather, as a way to "continue the conversation of the world" (189). Situating herself in the middle of this 'conversation,' Woolf's use of satire is perhaps the most complex and effective mode of creating a 'timescape'—of dissolving temporal barriers.



Woolf's 'serious' treatment of parody is most evident near the novel's conclusion, when Orlando marries Marmaduke Bonthorp Shelmerdine, Esquire. Vita Sackville-West criticized this "happy ending," viewing the marriage as Woolf's surrender to the nineteenth-century Bildungsroman plot (5). Critic Gualtieri, however, argues that "far from constituting a cheap joke against the Victorians, marriage then works in Orlando as a complex literary topos through which Woolf negotiates both her position in the history of English literature and the terms of her relationship to Sackville-West" (112). Unlike Orlando's first marriage to Rosina Pepita, her union with Shelmerdine is respectable. While it may seem like a capitulation to Victorian conventions, Gualtieri notes that this marriage "inaugurates for [Orlando] a season of happy and undisturbed productivity" (112). The married Orlando enters the 'modern' age, finally becoming a successful writer. Orlando's negotiation with the "spirit of the age" (10) perhaps reflects Woolf's own literary development and her positioning within the lineage she maps out (5). This kind of negotiation achieves what Serres' desires in our temporal relationships. Bruno Latour reviews Serres' argument: "You never say, 'Let us respect them at least for their differences, for their eccentricity, as an interesting witness to bygone days.' For you, its never a question of exoticism . . ." (9). Our treatment of the past, accordingly, should not be an attempt to 'separate,' to break away. Similarly, Woolf does not seek a clean separation between Victorian conventions and the 'modern' age. Orlando's marriage is perhaps Woolf's final act against temporal barriers; it is an act of negotiation, of

'living' the past again, as Serres' advises.

As Orlando draws to a close, the biographer insightfully reflects: "For what more terrifying revelation can there be than that it is the present moment? That we survive the shock at all is only possible because the past shelters us on one side and the future on another" (10). We protect ourselves with the notion of a distinct 'present'—a space lodged between our prehistory and our expectations. Rejecting this 'safe' construction of time, Woolf creates a world that oscillates between poles—between past and future, male and female; she creates a text that occupies multiple genres and styles—a story in which narrative levels collapse, as author and subject merge, as fiction becomes fact. Orlando is a story of continual negotiation, reflecting not only Orlando's personal conciliations, but also Woolf's endless conversations with her literary forerunners. Woolf upsets our restricting classificatory systems, creating—quite excitingly—a space for endless possibility.

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### **Analyzing Dichotomy in the World of Orlando (as it**

Name: Kate Shine

Date: 2005-05-10 00:20:20

Link to this Comment: [15095](#)

## Story of Evolution-Spring 2005 For

[The Story of Evolution, Spring 2005](#)  
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Introduction

Once upon a time, I wrote a story. One of my selves "(of which there may be more than two thousand)" (Woolf, 314)(1) stops me here, and argues at my use of the past tense in the last sentence. In actuality, at the present moment, the story has not been written.

Aside, in which I give the thesis

(At least from my perspective it has not, but my perspective has proven itself to be somewhat limited. Of course, despite what Ernst Mayr (2) has suggested, one cannot prove anything in science. But I would like to try to prove something, namely that I cannot not prove anything, so here I give leave of the scientific method as much as is possible.

Admittedly, I have no idea how much it will be possible. But the fact remains that my previous attempts to deconstruct dichotomy seem to have rooted themselves too strongly in category, logic, and dichotomy itself to hit the mark. Enter metonymy, association, and other seemingly illogical tools by which I hope to prove myself and other human storytellers to be limited. By limited I refer to their ability to illuminate their own understanding of themselves and of their world (which is a part of them).

I will also try to prove that despite these limitations, the pursuit is worthwhile and gratifying in its individual successes- those times when communication is complete and real. For, "...though human beings have such imperfect means of communication;...they will endure ridicule and misunderstanding rather than keep any experience to themselves." (Woolf, 144)(1)

Introduction: Continued

But give me a moment to defend myself to myself and to the reader. Like all stories before they are written, the threads of association that are to make it up (some, such as Daniel Demmett, might call these threads "memes," (3) ) are already lying restlessly in the basement of the writer's mind, the subconscious. They were collected "higgledy-piggledy" (Woolf, 208) (1) from the environment. Some may say they wormed their way in and infected the mind, and others may say they were stolen shamelessly from other writers, but we will try for the moment to set any value judgments aside.

In either case they have been there, and the story, although not technically written, exists as a shadow in the mind, not yet fully distinguishable and still "cumbered with other matter." (Woolf, 101) (1) The threads wait to be woven into language by the loom of category, also known as the neocortex, depending on which metaphor one prefers.

After all, is every thought not in some way metaphor? Is not every category in some way too selective, leaving out some threads, some of the essence of truth, of life? The goose is elusive, one might say. Virginia Woolf might say it. But here I am telling the story before it has begun.

## The Story

Once upon a time, someone was walking down a path. In this case, the time was finals week of May 2005 at Bryn Mawr College, and the path was the life of a student named Kate. Suddenly she came to a gate in the road of her Life, which read "Paper 4", and had some instructions. She had seen similar signs before, and knew that in order to open

the gate and continue on the current road she would have to produce a Paper 4. She was committed to exploring the current road, and so picked up her skirts and agreeably sat down to write an acceptable essay.

Soon she became frustrated with her efforts. There were many relevant and interesting themes to be explored, she was sure of that. Concepts of dualism, category, language, life, and evolution floated around in her mind, and she knew that somehow they were all connected. She simply needed the right words to pin them down, but they were resistant to her pins. Just when she would get one, the others would wriggle away.

The thoughts did create pictures in her mind, and for a moment she wondered if perhaps a picture would be acceptable. She stared off into the distance, exploring the images in her mind's eye, while her real eyes glazed over in a fog. Out of the fog appeared the shadowy figure of a woman, and although she wasn't sure whether this person was flesh and blood or a figment of her imagination, she seized the opportunity to get a second opinion. "Do you think a picture would be acceptable?" she asked the figure.

The figure stood silent. The longer Kate waited for a response the more she felt the oppressive weight of her task bearing down on her. Soon she surmised that the question had been so ignorant as to offend the figure past all response, and she collapsed in agony and shame, resigning to failure. 'Here I will lie,' (Woolf, 248) (1) she thought. You see, she was too tired even to construct her own phrase, although she could not have told you whose words she was plagiarizing. But

the figure could have. For that figure was real, and none other than Virginia Woolf, author of Orlando, a novel that was stirring in Kate's subconscious, and ready to shape her dreams. A single goose flew low overhead, and the flapping of its wings was the last sound she heard before she drifted to sleep.

## The Dream

She awoke and found the gate had swung open, presumably on its own. Turning around, she made sure no one was looking and then guiltily dashed through.

On the other side, the road was seemed very different. At first Kate couldn't make out what exactly the difference was, but as she continued walking down the road she found that the colors were fading and the sun growing brighter, until everything was a shade of grey and the heat too much to stand. Disturbed, she ran back towards the gate, but no matter how far back she went it was nowhere to be found, and the sun did not dim in its harshness.

Kate turned around again, determined to move forward and find her way out of this place. The road soon led her to the outline of a great grey fortress. She approached the door, picked up the giant knocker, which read "The Great Kindom of Dichotomy", knocked, and yelled, "Hello? Is anyone there?" A slat near the top of the door abruptly opened and through it she could just make out three faces covered in dark glasses. "What are you? What do you want?" one of them asked. "Who are you?" Kate responded. "I am Chastity, and these are my sisters Purity and Modesty." they said.

"Well, I'm Kate, and I'm sorry to bother

you, but I have a problem. Your fortress is in the way of the road of my Life, I have nowhere else to go, and the sun is oppressive. Will you please let me in so I can find out what is on the other side?"

They all looked at each other and whispered among themselves. Eventually Chastity responded, "Of course if you were in our fortress we would know exactly what you are, but the light is so bright outside that we cannot see you. And of course we should like to help you, if you are Right, being as we are the most shining examples of 'our reputed tender sex.' (Woolf, 129) (1) But no one has ever approached this door before, because no one lasts long in the Great Desert. So you can see we have a bit of a dilemma. Do tell us what you are."

"What I am? What do you mean?" Kate replied. "Please," Modesty entreated her, "we are going to soon be blinded if we keep this latch open, and we do not have time for puzzles. Are you Right or Left?" "Well...I'm right?" Kate ventured, inferring that this was some sort of password the sisters wanted to hear. "Good! Of course we knew that all along! But one cannot be too careful these days!" said Chastity, and opened the door with a curtsy.

In the dimmer light of the fortress, which had no windows, Kate could now see the sisters fully, although everything was still in shades of grey. They wore the most intricate and uncomfortable looking dresses she had ever seen, and exuded an overpowering floral odor. But the most striking aspect of their appearance was that each one had the same stark white, powdery complexion. It was the brightest thing in the room. In fact, when they moved to curtsy Kate could have sworn a



puff of powder actually rose in the air. "Welcome sir!" said Purity, "Is there anything we can get for you?"

Kate ignored the gender faux pas, attributing it to the dim lighting and dark glasses, especially since her only desire was to get out of this odd realm as quickly as possible. "Can you tell me what is on the other side of this castle?" she asked. Purity looked at her quizzically. "I am afraid there is nothing but Chaos. But of course we do not concern ourselves with that. You will find that everything you need is secure right here, my lord, between these time-honored walls."

Now things were getting ridiculous. "I appreciate that, but what I really need is to find the road on the other side of this castle so I can get on with my Life. Please, could you show me to the back door?" They all gasped, did their best to look shocked in a very melodramatic way, pulling out giant fans and shaking their heads vehemently. Modesty fainted and Purity ran to revive her with smelling salts. Chastity found her voice after some moments and said, "Oh, we cannot do that, sir. The King has absolutely forbid it! And there is no road on the other side, nothing but the terrible ocean of Chaos, which strips all men naked of their Illusions, a fate worse than death!!!"

"Well, I guess I'll have to risk it." Kate replied, tiring of these flighty women. "May I speak to the King?" Just as Modesty was beginning to stand up, she collapsed again. "Oh no!" exclaimed Chastity, "No one can speak to or even see the king! That is the first rule of Dichotomy! We wait for him to slip orders from under his door, and then we Obey!! This is how it has always been, and this is what protects us from

Chaos!!!"

At this point Purity interjected before Kate could try to reason with Modesty. "We must get out of this foyer! We let in the light and I can feel it singeing my skin!" "Ahh!" cried the other two, and they all reached out and felt for door to the next room, seemingly blind.

Kate followed them through to a central room with three doorways and no discernible ceiling. Directly in front of her was a bedroom with three beds, assumedly those of the three sisters. A golden plaque above the door read, "Those who prohibit; those who deny; those who reverence without knowing why..." (Woolf, 137) (1) "Odd", Kate thought, "and scary." On the right was an enormous marble staircase winding upward. She could just barely make out a man in a silk bathrobe on one of the balconies above. On the left was a small, decrepit wooden staircase leading downward, which certainly didn't seem to blend in with the opulent air of the castle.

Suddenly Kate's thoughts were interrupted by the sisters' shrieking, "Ahhh! Look at your skirts, you are LEFT!!" They had removed their glasses and were staring at her in horror, their eyes growing wide and crazy. "Deceiver! Faithless! Mutable! Fickle!" they screamed; their voices now deep and full of hatred, "Devil! Adulteress! Nigger! Pagan! (Woolf 64,77,13) (1) Modesty ran into her room and hid under the bed. "You are the lowest of the low! The basest of your kind! Get in the dungeon where you belong, to the bottom, the very bottom!!" growled Purity. And with that she and her Chastity grabbed Kate and with an unexpected strength flung her

down the wooden stairs.

She did not stop tumbling for some time. There was no way to tell precisely how long since she blacked out on and off during the fall. All Kate knew was that she landed wounded and bloody in a huge pile of dirt, unable to move. Eventually a woman in a grey dress came by and found her. "I see we have a new one, hasn't yet learned the "iron countenance of the law." (Woolf, 167) (1) Well, you will soon enough, that's for sure. You're lucky the workday is over; you can sleep for a while. I'm your supervisor, and if you act like a lady we might get along. Get to the bunk, before someone other poor slob lands on you. Go!"

The woman pointed to a dim light down the hall, and assuming this was the bunk, Kate hobbled over to it. Upon entering she saw rows and rows of filthy beds, if they could be called beds, filled with straw. At the corner of the room was a cracked iron pot with some thin gruel, surrounded by frail, dark girls. "Here you are, welcome to the palace!" cackled the supervisor, laughing at her own joke. "More like welcome to Hell," Kate overhead one of the girls mutter.

In the next days Kate quickly came to agree with that girl. The more she learned about the Kingdom of Dichotomy, the more damned she felt. Every day she rose at the crack of dawn (which was just an expression here, since there were no windows) to work in the mines. And not only was the labor grueling, but the food was barely enough to ward off starvation. During the day the girls were not allowed to speak, and only at night were they ever unsupervised. This time of day was all that kept Kate going while she plotted her way out, because she could speak to

the other girls.

Her closest friend Sasha explained to her how the society of the Kingdom was organized. Almost all the Lefts, she said, lived somewhere in the dungeon. Kate was currently on the lowest level, which was where all the worst and darkest girls were. The upper levels were where the more cultured and restrained Lefts lived, and they were somewhat more comfortable and well-fed. The most privileged and educated Lefts were allowed to work as servants to the Rights in the upper rooms. (The three sisters were actually born Lefts themselves, but were in a class of their own since they had completely left their former ways behind.) All of the Rights lived in the uppermost rooms, and Sasha did not know anything about them except for what she had been told. They were all said to be powerful and wealthy white men, who spent their time fighting wars to defend the society against other Dichotomies. The King lived on the uppermost floor and made all of the most important decisions.

When Kate protested that she was not dark and that neither was Sasha or many of the other girls in the bunk, Sasha said "Of course we are, look at us." "Well we're covered in dirt right now, but underneath my skin is light, and so is yours." Kate said. Sasha informed her that this did not matter, because everyone knew that the Lefts on the bottom were the darkest, most deceitful, witchy, rebellious, and lazy girls in the Kingdom. Left was synonymous with all of those names, and the girls on the bottom were undoubtedly the most Left.

One night Kate finally felt broken to the point that she could not go on. The

supervisor had been beating and insulting her all day, and she was sure she would never find a way out of the dungeon, let alone find her Life again. Sasha sensed it and pulled her aside. "Listen," she whispered, "I'll tell you a secret. Once you accept all of those names you'll be fine down here, because they don't mean anything among us, and we have our own names for each other. It's the Lefts on the top who live in the most shame, and even though they don't work like us they are made to hate themselves and each other. It's lonely, and I told lies and broke dishes just to escape."

"Is there really no other way to escape?" Kate asked her. "Well, none that you would want to take..." Sasha replied, "I mean, even if we found some way out of this dungeon the sisters would only put us back here when they found us. All that is outside is the Blinding Desert, which will kill you in a number of hours, or the Ocean of Chaos, which is even worse." "How do you know it is worse?" Kate insisted. "Have you ever been there?" "It drives everyone mad!" Sasha told her. "I know, because whenever there is a worker the supervisor really hates, she opens the little door at the end of the mine and makes us watch her throw the girl out. You can see all of the crazy people out there, naked and howling. It's truly horrible, I don't want to think about it."

"There is a door at the end of the mine? Sasha, I cannot believe you knew all this time and didn't tell me! Show me where it is!" "No, I wish I hadn't told you!" she cried, "You have to believe me, nothing good can be found outside that door!" But Kate had already begun running toward the mine. "My life is out there, I

know it. It certainly isn't in here, so I'm going to find it!"

Once Kate found the little door she couldn't believe she hadn't noticed it before. She had envisioned her escape as so much more difficult than this! After a moment of hesitation she stepped quickly forward and threw it open.

When she stepped out she was on a beautiful beach, in full color. Down the shore she saw the colony of naked people she had been expecting. There were men as well as women, in all different shades, which Kate had not been expecting. They ran all about, some flapping their arms like wings. Once she deemed them harmless and worked up the courage to move nearer she heard many of them squawking, in seeming imitation of the seagulls flying overhead. Other than that they were totally unresponsive and unintelligible. "Glawr! Glawr! (Woolf, 90) (1) and their own names (things like "Nick Greene!" "Virginia Woolf!" and "William Shakespeare!") were all they said for many days. Kate actually began miss her life in the mine, wishing she had listened to Sasha. She would stare at the moon at night, because it was like "a sheet of silver calm" (Woolf, 164)(1) in the tumultuous company of her new self-absorbed companions.

One day, one of the squawkers said something instead of "Glawr!", which was, "What a phantasmagoria the mind is and what a meeting-place of dissemblables." (Woolf, 176) (1) "Who said that?" Kate replied, because the voice seemed to come from an empty space. "Ah, finally the madness is coming to me! Maybe it will be less lonely!" she thought.

But the very next day Kate could have sworn Virginia Woolf disappeared, said "Society is the most powerful concoction in the world and society has no existence whatsoever." (Woolf, 194) (1), and then reappeared immediately after her proclamation. So it continued. Very rarely one of the squawkers would disappear for a second, and in their place a voice would proclaim something profound and perplexing before they returned.

Eventually Kate was so disturbed and intrigued, and to be honest, lonely, that she decided to try the squawking herself. She stripped naked, flapped her arms, and yelled "Glawr! Glawr! Kate Shiner!" all day long for 13 days. On the last day, it finally happened.

She opened her eyes and found herself in a room with someone. "Who are you and what is this place?" Kate asked. He (or she, for Kate never knew) answered her with a verse, which began "The burdensome practice of judging/brings annoyance and weariness/What benefit can be derived/from distinctions and separations?" (Seng-ts'an) (4) and then Kate found herself back on the beach.

Kate's conversations with the Sage were sometimes broken apart by only hours, sometimes days, and there were times when even years would go by before she was again in his/her presence. Over this time she learned much. The Sage preached a faith of nonduality which was the exact opposite of the credos in the Kingdom of Dichotomy. In this view everything and everyone was equal, and to categorize them in any way separated them from the true unity of All. Every name, every word was a category of some kind and thus an illusion. Kate found that she came to agree with the Sage's

teachings, and she appreciated his/her wisdom.

However, she still felt unfulfilled, and despite the Sage's insistence that there had never been and never would be a separate Life of her own, she could not help believing or at least wishing that one existed. But she strived to have faith, because the Sage said that once her understanding was complete true enlightenment would bring her fulfillment and unity.

One momentous day while she was with the sage, concentrating on hiding her yawns, she thought to look up to the ceiling of his room, which she had never done before. There she saw, of all things, an enormous goose. It looked down at her, and while the sage looked away, Kate impulsively grabbed one of the goose's feet and scrambled up onto its body. The sage cried out to her, "Do not remain in the dualistic state;/avoid such pursuits carefully./If there is even a trace/of this and that, of right and wrong/the Mind-essence will be lost in confusion!" (Seng-ts'an) (4)

"I know!" Kate confessed, "It is all an illusion! But 'I am losing my illusions, perhaps to acquire new ones'(Woolf, 175)!" With this she flew off on the swan into 'a naked sky' with 'fresh stars twinkling in it.' (Woolf,176) (1)

When the swan set her down, she was on a great bridge, and someone was approaching her. Within two seconds she realized it was none other than Love. He said everything and nothing to her at once, and it sounded something like, "Rattigan Glumphoboo." (Woolf, 282) (1) Kate understood and replied, "Yes, 'We must shape our words till they are the



thinnest integument for our thoughts' (Woolf,173), because after all, it is the best we can do." Love laughed heartily at this joke, and Kate joined him. They lived happily ever after.

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### **The Story of Archaeological Time**

Name: Becky Hahn

Date: 2005-05-11 10:47:59

Link to this Comment: [15109](#)

## Story of Evolution-Spring 2005 For

[The Story of Evolution, Spring 2005](#)

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In the novel Orlando, Virginia Woolf rejects the conventional view of time in

favor of a more fluid system that combines different temporalities (real time and earth time), and even the block universe concept. Time in her story is not limited to one perspective or conception. Similarly, the creation of story in the discipline of archaeology combines relative and absolute dating techniques, using evidence from the historical and material records. Archaeology is essentially a retrospective construct of change over time. Recently, there has been movement beyond the traditional uses of typology and classification to relate archaeological time. Contemporary archaeology no longer has the main goal of establishing a chronology. With freedom from an emphasis on strict linearity, archaeologists can study the conceptions of time of those societies that they are investigating. For example, the ancient Egyptians had a cyclical view of time; therefore interpreting their society only linearly is missing an understanding of their lives. By studying how the Egyptians themselves conceived of the passage of time, one can construct a more thorough story of the Egyptian civilization.

The history of archaeology is a story of evolving theories, research methods, and ways of looking at the past. Research methods in particular can be very ephemeral; technologies often become out of date in a matter of years. The framework of archaeological study is based on questions/ideas/theory, methods, and discoveries. The history of archaeology as examined here will focus on the evolving methods of analyzing and conceptions of time, and how time influences broader questions concerning how ancient societies functioned. (Renfrew and Bahn, 19)

Although speculation and investigation of past cultures has been undertaken for many centuries, the history of the current discipline of archaeology began in the 18th and 19th centuries. The Westerners who began to excavate sites primarily in Europe and the Near East were motivated by dreams of discovering riches and unearthing lost cities. The Bible inspired early archaeologists to search for ancient civilizations in Egypt and the Near East, while Homer's Iliad inspired Heinrich Schliemann to search for the mythical city of Troy. The biblical time frame was most prominent during the 18th and early 19th centuries, therefore early archaeologists worked within a framework that placed the creation of the world in 4004 BC.

(Renfrew and Bahn, 19) One of the first major developments useful for the field of archaeology was the establishment of the antiquity of humankind. Jacques Boucher de Perthes argued this point in 1841 based on human artifacts found in relationship with bones of long-extinct animals. (Renfrew and Bahn, 24) The publishing and proliferation of Darwin's theory of evolution, first in 1859 with his Origin of Species, proved crucial since it provided a mechanism and support for the recent "antiquity of man" theory. Darwin's work led to one of the most ambitious archaeological projects: the search for human origins in the material record. (Renfrew and Bahn, 25) The developments of Perthes and Darwin hugely expanded the time frame in which to study the past.

In archaeology, it is possible to study a culture without knowing precisely how long ago its people lived. However, most modern humans desire to classify the

past in terms of time. Relative dating distinguishes the material record by older and younger. Early attempts at classification defined broad categories. The Three Age System separated the past into the Stone Age, the Bronze Age, and the Iron Age. This system was created in 1836 by C.J. Thomsen in order to study and classify prehistoric artifacts. (Renfrew and Bahn 25) Despite its lack of applicability in Africa and the Americas, the system provided a framework for study, and it is still used today in some contexts. In the 1870s, Edward Tylor and Lewis Henry Morgan tried to categorize societies by arguing that human societies move from savagery (primitive hunting) to barbarism (simple farming) and finally to civilization. (Renfrew and Bahn, 27) This system has long been dropped since not all societies evolve in this path, and the argument falsely suggests improvement.

Archaeologists also developed more specific means of relative dating. Early methods emphasized sequences, including analysis of stratigraphic deposits and typological sequences. Stratigraphy operates under the general principle that underlying strata (soil layers) are older than overlying strata. (Renfrew and Bahn, 118) However, one must analyze strata carefully, because disturbance from human or natural phenomena can change the order of the deposited material. Typology is also used to assist in chronological ordering. The typological method borrows from the Darwinian theory of evolution by presuming that artifacts display an evolutionary change in style that can be tracked over time. (Renfrew and Bahn, 120) Typological chronologies consist of the arrangement of artifacts in

chronological and/or developmental order following the principle "like goes with like." (Renfrew and Bahn, 25, 121) Typology obviously relies on the presence of many similar artifacts, frequently pottery. Evolving pottery style was used to classify periods in pre-dynastic Egypt.

The first type of archaeological dating to not use sequences, cross-cultural comparisons, or written records was radiocarbon dating. Willard Libby discovered this process in 1949, (Renfrew and Bahn, 35) based on the fact that radioactive decay occurs at a regular rate in organic remains. Therefore, one can measure how much radiocarbon is left in a sample and relate this amount to the rate of decay to determine the age of the sample. (Renfrew and Bahn, 138) Radiocarbon dating can be used anywhere in the world where remains of organic origin are present, and can determine dates for remains up to 50,000 years old. (Renfrew and Bahn, 144)

Dendochronology, or tree-ring dating, is another "absolute" technique, but it is much more limited in scope than radiocarbon dating. Sequences going hundreds, even thousands of years back from the present can be formulated by matching growth ring sequences of living trees of different ages and old preserved timber. Rings from different trees can be matched because the ring size and character is determined by environmental conditions, so a given year will cause the growth of similar rings in many trees. Dendochronology can be so accurate that it is often used to check and correct radiocarbon dates. (Renfrew and Bahn, 135) It is also possible to correlate sequences from distant locations through large-scale events such

as volcanic eruptions, large meteorites, tsunamis, and earthquakes. (Renfrew and Bahn, 161) These events can leave evidence in the archaeological record over wide areas, and are thus useful for stratigraphic sequence correlation. The most reliable method of dating is usually a process of interconnecting stratigraphic sequences with information from absolute dating techniques. (Renfrew and Bahn, 118)

Radiometric and other "absolute dating" techniques revolutionized archaeology's understanding of time. The interpretation of time, as well as the type of measurement used, needs to be adapted to the period being studied. When one begins to formulate chronologies, the question of when to date from comes up. The convention of CE (Common Era) and BCE (before the Common Era) are now used for most dates within the past ten thousand years. Therefore, BCE is used to express the dates of the ancient Egyptian civilization, ranging from roughly 5000 BCE to 332 BCE. This system is simple to understand for most Westerners, because BCE corresponds to Before Christ (BC) and CE corresponds to Anno Domini (AD). For many prehistoric dates, the convention of Before Present (BP) is used. Since the present is ever changing, 1950 has been fixed as the "present date" because it is roughly when the radiocarbon dating technique was invented. The number of years off (currently 55) does not make a difference within the huge time scale. BP is used for Paleolithic periods (for example, the Paleolithic Period in Egypt was 700,000 BP to 7000 BP). (Renfrew and Bahn, 118)

There are problems with radiocarbon and other scientific dating techniques,

including poor precision (dates can sometimes be off by many centuries or even millennia), or lack of accuracy caused by taking a sample that is contaminated or from the wrong context. (Renfrew and Bahn, 117) Despite the scientific nature of these dating techniques, results cannot be viewed as the "truth." The archaeologist must interpret which methods are the most useful and trustworthy for the situation.

Before radiometric dating, establishing a date was one of the main end products of archaeological research about a particular site, and it often took large amounts of time and effort to determine. With new scientific technology, dating is rapid and archaeologists are free to ask more challenging questions about the site being studied. The so-called "New Archaeology" movement seeks to explain rather than describe, using the scientific method and logical arguments, rather than relying on the subjective authority of the scholar. (Renfrew and Bahn, 38) Archaeologists are moving beyond the old focus on typology and classification. Michel Foucault, in *Les mots et les choses: Une archéologie des sciences humaines* argues that classifications are inherently subjective, even arbitrary because they are created by humans and hence are just constructions based on culture and language. One must recognize that there is not just one true order to be found. Foucault defines modernity as "an archaeology," referring to an investigation or questioning. (Foucault, 13) Contemporary processual archaeology indeed focuses much more on asking questions and studying possible solutions using the model of the scientific method, rather than the old "piecing together a puzzle" conception.

Foucault also points out that humans have a tendency to search for continuity when there's often none ("tout cette quasi-continuité au niveau des idées et des thèmes n'est sans doute qu'un effet de surface"). (Foucault, 14) His analysis, although not directly related to the field of archaeology, reminds us that much of archaeology is a subjective construction.

During the past 30 or so years, a movement called evolutionary archaeology has developed. Its followers, who are influenced by Darwin's theory of biological evolution, emphasize cultural evolution found in the archaeological record. Some archaeologists find the concept of "memes" or "Cultural Viruses" useful for analyzing the development of trends in the archaeological record. The concept of lineage, defined as "a temporal line of change owing its existence to heritability" is taken from Darwin's theory and applied to cultural traditions--the inheritance of cultural traits. (Renfrew and Bahn, 474) The concept of punctuated equilibria, taken from the current scholarship on biological evolution, can also be applied to cultural evolution present in the archaeological record. Punctuated equilibria is when a long time passes with very little change, followed by a short period of rapid evolutionary progress. This concept is useful for explaining very quick changes in cultural patterns, which can be puzzling when found in the archaeological record. (Renfrew and Bahn, 494)

The division between prehistory and history is a very important one in archaeology, because the presence of writing (which defines the emergence of "history") has a dramatic effect on archaeological interpretation. Historical



chronologies can be very useful for archaeologists; however they must be approached and analyzed with care. Some ancient chronologies used complex calendars while others measured time by dynasty, king year, or amount of time since the foundation of the city or other institution. Determining the accuracy of ancient accounts of the passage of time is always a problem, especially if the only records remaining are from after the end of the civilization in question.

Egyptian chronologies compiled by modern scholars make use of the approaches that have been introduced: relative dating through stratigraphic excavation and sequence dating of artifacts, and absolute dating through calendrical and astronomical records from ancient texts as well as radiometric methods. (Shaw, 2)

Radiometric dating has been especially useful for dating Egyptian prehistory. It is not so useful for dating more recent periods, because the margin of error that results from radiometric techniques is larger than the error from historical records. (Shaw, 3)

The chronology we have of ancient Egypt is divided into three kingdoms: the Old Kingdom, the Middle Kingdom, and the New Kingdom (with intermediate periods), which are further divided into 31 dynasties, each with a variable number of kings. Manetho, a third century BCE Egyptian priest, wrote the first Western style history of Egypt, his *Aegytiaca*. He separated the history of Egypt into dynasties made up of rulers linked through kinship or location of the main residence. Manetho probably used the Palermo Stone (royal annals that go back to mythical rulers), "day-books," king lists and other annals inscribed on

temple walls, and papyri from temple and palace archives to formulate his chronology. (Shaw, 4) His work listed only the king's names and their reign length, not specific dates. Another problematic aspect is that his history only survives in the form of excerpts compiled by later authors. The current chronology of ancient Egypt is a synthesis of Manetho's history, king lists, dated records of astronomical observations, and reliefs and stelae with inscriptions referring to historical events. (Shaw, 5) The Turin Royal Canon is a particularly useful king list from the 13th century BCE. (Shaw, 7) The dates in our current chronology were determined by beginning with a previously known date--the conquest of Egypt by Alexander the Great in 332 BCE--and working backwards. Therefore, New Kingdom dates are accurate to within a few years, while Old Kingdom dates may be off by up to 200 years.

Astronomy can be used to help refine dates. The ancient Egyptians kept record of when astronomical events took place, and modern astronomy can determine the exact dates of these events, so merged together they serve as benchmarks for refining the entire chronology. (Renfrew and Bahn, 129) In particular, the Egyptians recorded the heliacal rising of the dog-star Sirius, which they correlated with the beginning of their solar year. This information serves as a linchpin for the reconstruction of the Egyptian calendar and larger chronology. (Shaw, 8-9)

Despite its seeming cohesiveness, the chronology of ancient Egypt reveals very little about how the ancient Egyptians experienced and conceptualized time. The system of political division does not take into account social or cultural

change. Cultural change was only sometimes linked with political change. Gradual socio-economic change was frequently more significant for the people living through the period than short-term political change. (Shaw, 2) There were many continuities between different periods which mean that our political chronology may have meant little to the ancient Egyptians. (Shaw, 13) There also continue to be uncertainties about the political chronology due to the unreliability of Manetho, the presence or absence of co-regencies, and other problems determining correct regnal lengths. (Shaw, 11) For example, many Old Kingdom dates refer to the number of biennial cattle censuses, rather than the number of years the current king had reigned, leading to confusion over reign length. (Shaw, 5) With its numerous problems and uncertainties, the political chronology of ancient Egypt cannot be viewed as an expression of how the Egyptians experienced the passage of time. We must expand our understanding by examining the Egyptian conception of time.

The records that the ancient Egyptians left were not designed as historical narrative. For example, king lists were used for the purpose of ancestor worship, not as a catalog to keep track of their "history." (Shaw, 7) Reliefs in royal mortuary temples depicted the successes of the king, whether real or imaginary. (Shaw, 15) The events recorded were those that were important to the Egyptians: cult ceremonies, building projects, warfare, and the Nile inundation. Hydraulic and climactic changes were very important to the ancient Egyptians, because the level of the Nile inundation determined the agricultural yield and the economic

situation throughout the year. (Shaw, 5) Objects such as funerary stelae and votive palettes bore inscriptions that commemorated (not narrated) royal acts. (Shaw, 3) During the Old Kingdom, years were named after an important event that occurred during the time. Reliefs depicted events with standardized, mythical images. For example, an image of the king smiting a cowering enemy was used to symbolize warfare, and Egypt was always shown winning, even if the armies lost or did not fight at all. Throughout ancient Egyptian history, the lines between actual historical event and mythological or ritual event were blurred. (Shaw, 4) Accurate history was not of any use to the ancient Egyptians. Kingship is an important example of how ancient Egyptians combined the actual and the mythical. One of the king's titles was nesu-bit, which means a combination of the unchanging, divine king (the idea of kingship) and the current ephemeral, mortal holder of the title (the individual king in power at a certain point in time). (Shaw, 7) The accession of a new king was viewed as a new beginning. The dates started over using the system of regnal years--the date was the number of years since the accession of the current king. Each individual king reworked the same universal myths and rituals of kingship within the events of his own time. (Shaw, 6)

The ancient Egyptians viewed time as cyclical and associated it with the journey of the sun god. They believed that each night, after the sun set, the sun god would pass through the 12 hours of the netherworld, before emerging on the eastern horizon completely rejuvenated. During this period, time ran backwards so that the sun god, who had aged over the course of the day, would get younger

during the night and reemerge as a child. (Robins, 122) In representations of the sun god's passage through the 12 hours of the night, he is shown passing through the body of a snake, or sometimes the body of the sky-goddess Nut. An endless snake or a rope being pulled from the mouth of a deity represented time and infinity. Stars were also used to symbolize the passage of units of time. (Shaw, 437) The king associated himself with the self-regenerating sun god by participating in sed-festivals given by the deities. The sed-festival was composed of rituals for the renewal of the king, and took place after he had ruled for 30 years. The king expected to merge with the sun god after his death and join this deity in his journey of cyclical renewal. (Robins, 122) The ancient Egyptians did recognize a point of creation, where the primordial mound emerged from the swamp of chaos, as well as an end point in time with return to the original chaos. (Robins, 206) They did not necessarily believe in fate like the ancient Greeks did, but everything in their lives was placed within their mythical context, so life naturally followed known patterns.

The discipline of archaeology is both a science and humanity. The story told by archaeologists makes use of scientific data, yet there is a huge amount of subjective analysis required to formulate the story of a civilization. Much work has gone into putting together a comprehensive chronology of ancient Egypt, using historical records, stratigraphic information, and radiometric data. However, this chronology is insufficient, because it reflects only political change and neglects social and cultural phenomena. The ancient Egyptians did not view history as a progression of kings who each

accomplished something new; they saw time as cyclical and kings as semi-divinities who fulfilled mythical duties. Time must be understood beyond the linear, Western conception. Only when one combines the historical and scientific information presented in a chronology with an understanding of the Egyptian conception of time can one begin to comprehend the Egyptian civilization. As scientific archaeological techniques develop, archaeologists should remember that they are also working within a humanity and are able to use subjective material to construct their story of the passage of time.

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### **Illumination**

Name: Haley Brug

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## The Story of Evolution, Spring 2005 Final Web Papers On Serendip

This was how it all began. In the past, in the darkness, with an idea. As the idea's light crept over the shadowy contours of the landscape, delved into the deep crevices and scraped the soft edges, it created a new world. A mind. And into this new world fell more ideas, until the new edges were worn rough with age and use.

Cade's mind was born on the darkest hour of the darkest day. His brain was born long before. Only one story belonged to him then, the story which had brought him into the world. A biological story.

"You have a beautiful baby boy," said the doctor as he turned back to place the screaming infant into the woman's arms.

'I have a beautiful little story,' said his mother to herself, the very first time she laid eyes on her new son. It was the last time he saw her.

It was unfortunate then, that he had been born into a world of sacred tradition, of irreversible faith. In this new world, stories were not allowed.

"Stories are unnecessary," his father told his son when he was old enough to understand. "They are useless. All they bring is pain." If you could avoid telling a story, you did. This was how Cade grew up. He did not ask why the sky was blue.

He did not ask his grandparent's names. These were all stories, and stories were dangerous.

He existed in this world for five years. On his birthday, he made the mistake of asking why he had no mother. "A story killed your mother," was the answer. He never asked again.

When Cade was six, his father caught him telling the boy next door a story about how he had planted the garden behind their house. He had been locked in his room for hours on end. He wrote stories about the birds flying overhead on the back of two boxes of rice, he made a stalk of celery into a hero who needed to get to the other side of the room before he died of thirst.

"This has to stop," his father said. "No more stories." But the stories continued, unchecked but not unnoticed. Cade could make a story out of anything, a butterfly floating by, the shape of a cloud, the sound of the coffee pot in the morning. By the time he was ten, it was painfully obvious that his father's worst fear had come true. Cade was a storyteller.

"A storyteller," Cade's aunt declared. It was a very serious offense. People were placed in categories, and if there was one thing you didn't want to be, it was a storyteller. People looked down on you, because at any split second, you might be the end of happiness, the end of control, the beginning of purpose and choice. "You should destroy him," the woman told her brother. "There is no other way around it. He is a leper. He just doesn't belong here."

The father knew that this was not right,



but there was no such thing as right in his world. He had never heard of the concept of morality. Stories of noble doings had never reached his ears. But when he confessed he could not hurt his only son, his sister sent Cade away. "It will be better," she said. "They have places for boys like him. Reform schools. Places to cure them. He will come back changed."

Cade was thus spirited away in the night, without any knowledge of where he was going. At the school, no one spoke. Speaking gave way to storytelling. If the teachers caught you writing a story, you were whipped. "There is no room for stories," was the mantra they were taught. But Cade still dreamed, and in his dreams were stories, fantastic stories that he saved for when he felt lost and alone.

The most dear and beloved object to him in all the world was the plain yellow box that reminded him of his mother. There was the comforting smell of coffee, which Cade was sure she must have loved, and the box was torn in several places because he had a habit of turning it over and over in his hands. The box was a puzzle to him. It was blank except for the big black inky letters that spelled out "Coffee". The empty space challenged Cade. It made him want to pick up a pen and write a story on it's worn surface. He resisted, knowing he must learn how to function in the world he had been born into. He must not be a storyteller. Those days were behind him. So was his childhood. He placed the box in his pocket, and there it remained.

The disciplinarians at the school wore the same suits and talked in the exact same tone of voice. It was a monotone which grated harshly on the ears. If there

was an informal leader, it was surely Mr. Hoskins. At six feet and four inches, Mr. Hoskins was by far the tallest, and the most feared. His step was so light that not even the guard dogs heard him coming. His eyes were beady yet deceptively sharp. They could spot a spider moving on a wall from several feet away, and most importantly, they could read a child's handwriting from across the room. They never saw him eat, or drink, or sleep. He appeared to be indestructible and immortal. He was simply not human.

Cade's friend George knew Mr. Hoskins well. George had been caught reading just about every pamphlet he could get his hands on in the black market. On this particular day, George had a pamphlet on altruism, which he was reading aloud in a spirited voice. A group of children gathered around him, all of them listening intently. They were all reformed storytellers, and they had gone so long without stories that the pamphlet was a miracle to them. They hardly noticed its faded cover or the tape that held it together in the middle. To them, it was vibrant, alive with ideas, bursting with knowledge. They had never been more thirsty for it. There was a great big commotion as they all learned of the pamphlet. Soon, a large crowd had formed. Aware of his audience, George spoke even louder. His voice rang across the courtyard, through the hallways, into the dormitories. "Are you stupid?" asked one of the older boys. "Do you want Mr. Hoskins to hear? Do you want to die a painful death, bleeding out your ears?" All the children knew Mr. Hoskins would make him eat his words, in one way or another. He would make it so he could never see or hear again.

George had already gone too far, and everyone knew it. It was too late to stop. The smile on his face was too wide, his position too relaxed. He had fallen in love with the story. The older boy turned away, disgusted. Here George continued reading on the origin of morality. The premoral world was just beginning to take shape in the their minds when Mr. Hoskins, who had long since taken notice, burst into the group and pushed anyone who was smaller out of his way.

"How interesting," he said. They were simultaneously spellbound by the words and frozen with fear. "Give me that," Mr. Hoskins demanded at last, and not a soul moved.

George rose to his feet, as if he were going to keep the pamphlet by running in the opposite direction. He placed his beloved piece of paper into Mr. Hoskins' hands. Tension dissolved, but only for a moment.

"Come with me," Mr. Hoskins said, and he took George by the back of his shirt. George looked calm and peaceful. He gave Cade a brave smile. "Don't worry," he mouthed.

Cade was horrified. "Do you think he'll come back?" one of Cade's friends whispered, if you could call them that. His friends were storytellers like himself, but, forced to live in an environment without stories, their sense of right and wrong had all but disappeared. They had never heard of neighbors helping neighbors, people risking lives for others, caring for each other. They had been taught from a early age that the self was most important in all enterprises.

"He was reading aloud," answered one

boy. "He was reading about altruism. There is no worse crime."

Cade had never heard of altruism. "What do you think they'll do to him?" he asked after George and Mr. Hoskins had disappeared inside the depths of the school.

"I don't think we'll see him for awhile," the boy said lightly, almost condescendingly. And he was right. For exactly three weeks, George's bed was empty, and his notebooks untouched.

On the day that George was back at breakfast, a peculiar thing happened. The coffee box fell out of Cade's pocket on his way to the dining hall, and Mr. Hoskins, whom Cade had not heard approaching behind him as usual, picked it up. "You had better take care," Mr. Hoskins said, and his eyes narrowed. Cade gulped as he inspected the box. It was a rule that they were not supposed to have any material items whatsoever, especially if they inspired stories.

"Coffee beans," Mr. Hoskins continued, but now his voice fell into a whisper. "These probably came from Brazil. The rainforest. Do you know about the rainforest?"

Cade shook his head, incredulous. "The rainforest?" he stammered. Was Mr. Hoskins attempting to tell a story? Something told Cade to step away.

"I'm late," he said. He ran through the double doors, forgetting that Mr. Hoskins still held the coffee box, and Cade's only memory of his mother.

George was unusually quiet at breakfast. They were allowed to talk about the food, but not its preparation. They were

allowed to talk about the weather, but not to compare it to days past. "It's warm today," Cade commented.

But George was silent. He barely ate anything. After breakfast, he excused himself from Cade's side and went back to the dormitory. For once, Cade did not follow him. A change had taken place in his friend, and he was not exactly sure what. It was something he just couldn't put his finger on.

Cade went through the motions as he usually did, going to class, writing down the simplest of observations. His teachers taught him that the world they must learn to fit into was based on resolution. Stories ended. Conflict ended. Everything was tied up in a neat package, and there it was left, to sit for all eternity. Wrapped up, finished. Done with.

His classes related to him the ideas he would need to understand to survive in the real world. They tested them on these ideas, played games with the ideas, sang them and held debates. The ideas never seemed to stick to Cade's soul. They clung, almost like burs, for days at a time, before Cade wrested them forcefully from their places. They would fall, until Cade felt inclined to pick them up and try the process all over again. He hated them with a dark passion. He still longed for stories, for words, for an open-ended future. He wanted to be an agent, not simply an inactive piece of matter who had no say in his life. His fingers longed to shape words, his mind longed to be free. Free will was not overrated, as his teachers told him daily. Free will was not given nearly enough credit. How could thought end? How could any process be ended too soon? He realized he would forever be a storyteller. No reform school

could fix it, no teacher could teach it.

That night, Cade returned to the dormitory to find George, his head bent over his work, muttering incomprehensively.

"Why do they put us in boxes George?" Cade asked, for it had been on his mind all day, ever since he had pulled the burrs off and stamped on them for good.

"Boxes?" George asked. "Boxes!" He continued to whisper softly to himself, and he did not turn to acknowledge him.

"Boxes. Categories," Cade said. "What kind of a life is that? A life of endless stereotyping and categorization? I am no more than a storyteller to these people who want me reformed. I've been placed in a storyteller box. The only thing people see of me is whatever preconceived notions they have."

George still did not answer. Cade drew closer to see what he was working on. "You can't put us in a box," he continued. "Maybe you can categorize feelings, but you can't categorize people. If you did, what would be left? We'd all be forced apart and separated." When he described himself in his mind, Cade thought of someone who was more than just storyteller. Could peoples' dependence on boxes ever be overcome?

George was obviously not in the mood for a debate. The older boy was scribbling furiously, his eyes darting quickly across the page. There were at least fifty pages of writing lying on the desk next to him.

"What are you writing George?" Cade asked. It couldn't be homework. The ideas didn't take that long to write out.

"Nothing," George said. "I'm writing nothing."

Cade moved closer still, until George snapped the paper to his chest and recoiled as if Cade were a rattlesnake. "Don't!" he warned. "Get out of here!"

"Were you writing a story?" Cade stammered. "A story?" What had happened to his friend? What was going on? Why was George writing a story, after he had been whipped so mercilessly for reading the pamphlet only three weeks before? Where had he been for those three weeks? And why hadn't he told Cade anything about them?

"Where were you the past three weeks George?" His voice fell into a hushed whisper. "What did they do to you?"

"It's none of your business," George snapped. "Get out, Now." George was taller, and stronger, and when he rose to his full height, he towered above Cade almost menacingly.

"Don't make me hurt you," he said, and Cade thought he could hear some softness to his tone. "This is important." His whisper grew more urgent. "You will learn soon enough."

Cade stumbled out of the dormitory in a daze. He had never felt so alone, so utterly abandoned, so confused and so left behind.

He was so dazed, in fact, that he did not hear the stealthy footsteps of Mr. Hoskins, who had slipped into the same hallway only moments before. He ran head long into him, and fell to the ground with the wind knocked out of him. "Hello Cade," Mr. Hoskins said.

Cade trembled. Mr. Hoskins held out the yellow box. "This belongs to you, I think," he said at last. "Well, go ahead, take it." He pushed the box towards Cade, who was too shocked to reach out a hand for it. "Go ahead," Mr. Hoskins said, this time in a more persuasive voice.

Finally, Cade felt his strength returning to him. He reached out for the box. Mr. Hoskins grabbed his hand. "Come with me, Cade."

Was he in trouble? The thoughts that ran through his mind were terrible. He thought of death and war, stories he had never heard of before. He thought of pain and loss. The corridor seemed longer than ever. Each step fell heavy in his ears and in his heart. He could not end up like George. He would not end up like George...he just couldn't.

Mr. Hoskins opened the door to a room and pushed Cade inside quickly. "You must be quiet," he said softly. As he switched on the light, a wave of something Cade had never before smelled came wafting towards them.

Cade found himself in what could only be described, for readers living in a world of stories, as a giant, fantastical library. The new smell was the smell of books: old books with yellowing pages and new books with pages so new that the ink would smudge on your fingertips.

"Have you ever read one of these?" Mr. Hoskins asked.

Cade shook his head slowly. He had never been so enthralled.

"Wait here," Mr. Hoskins said, as if it were dangerous for Cade to take even



another step forward.

Mr. Hoskins climbed the tallest ladder and removed a small book with a worn green cover. "You've been living an unconscious life, Cade," Mr. Hoskins said as he descended. His voice, which Cade had always read as cold and alien, was suddenly warm and familiar.

The book felt heavy in Cade's hands. Mr. Hoskins opened it to the first page. "Read," he said. And Cade read. For the next three hours, until the sky was dark and his soul deeper. He read about the Amazon rainforest and the harvesting of coffee beans, and when the jungle had come alive before him, and he could smell the scent of moisture in the air, and the feel of palms as they brushed past his face, he put the book aside. He read past circuses and pyramids, the frozen tundra and the Serengeti.

When Mr. Hoskins returned at the end of the night, Cade had read so many books that he was a completely different person. "Before this," Mr. Hoskins remarked, as he began to pile the books back up. "You had a brain. And without stories, you were nearly unconscious. And now, my boy, now you finally have a mind."

Cade was exhausted, and his memory started to slip, back to when his father had told him about the uselessness of stories. "Why am I here?" he managed to ask. He was not sure what had happened over the past few hours, or why he wasn't bruised or bloodied.

"This is a school," Mr. Hoskins said. "But I can't really categorize it as just a school." He stood up. "I'm trying to end the lies, but I have to work slowly. We

have to work slowly, that is."

Cade listened as Mr. Hoskins described his recruitment of boys and girls, storytellers, who would write and share their stories with the world.

"I want you to write your story, Cade," he said at last. "Your box convinced me."

Unconsciously, Cade's hand went to the faded yellow cardboard in his pocket.

The box. The box was full of memories, of stories, of songs, of sadness, of love and hope. In the box he had carried around, Cade had stored everything that he could not share with his world. It was his dream box.

"Give it to the world," said Mr. Hoskins. "After all, how can one thing be truth? The world, this world...is asking you to believe in a story. How can you believe in just one thing, one story? Their story is that there are no stories. But a world cannot be without stories. Everything is a story."

Cade returned to the dormitory with a heavy heart. George was sprawled across his story, for that was what it was, all two hundred pages of it. His breathing was soft and shallow.

How could he, Cade, fight against something he had tried to force himself to believe in all his life? He went to sleep, and his dreams were terrifying. He dreamt of a cultural revolution, of the posters he had seen when he was a child. His father had covered his eyes. "Those people are not right in the head," he'd told his son. Cultural freedom. Stories as the vector that transferred ideas, that carried on a cultural evolution. He slept

restlessly, fitfully, tossing and turning.

In the morning, the cold air flicked across his face only minutes before the sun rose. George was poised over his notebook, his pen flying across the page.

"You're awake," he said, when he heard Cade stir. "Have you decided then?" The awkward silence between them suggested that George knew the whole of it.

"No," Cade said slowly. "I only know that I have to leave this place."

And so it was arranged that Cade, the reformed storyteller, went back to the house of his birth that very afternoon. His father and his aunt welcomed him home with open arms. They sensed he was different, very different, and this pleased them.

Cade was quiet for weeks on end. The day his aunt had visitors in the house, he finally broke his silence. And he began to speak. Of coffee beans and his mother, and how she must have loved the smell. He talked of the rainforest, the Nile, hot air balloons and adventures in space. His aunt's friends were shocked. Not one of them stopped him. Not one of them said, "Stories aren't allowed."

"It's been so long," one of them whispered. They wanted more stories, more conflicts, more dramas.

"Now," Cade said, when he was finished and his voice was tired. "Now will you tell me what happened to my mother?"

Cade's father, who had been watching him from the doorway, found the words at last. "Yes," he said. "Now I will tell you."

Cade waited for his father on the porch.

He was wearing his old school jacket. A sheet of paper was crumpled in his left pocket. "Science as absolute truth," it read. "Ideas and stories destroy the sacred. Universal acid." He ripped the sheet of paper and threw it into the wind.

Then he felt for the box, in it's usual pocket. "It's open now," he said. "No more categories. No more boxes to be put in." He tore the box in half, as if destroying the box meant destroying every last stereotype and every last category. "I've let my story out at last," he said.

He watched as a butterfly flew from it's perch, into the blue sky beyond him.

"Yes," he said softly. "Yes, I live in a world of stories."

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**Do all of our Readings from the Course present the**

Name: Eleanor Ca

Date: 2005-05-11 13:52:24

Link to this Comment: [15116](#)

Story of Evolution-Spring 2005 For

[The Story of Evolution, Spring 2005](#)

## Final Web Papers On Serendip

This course presented scientific material as stories and presented ways of thinking about literature and ideas in the terms of a scientific idea, evolution. That the course was offered in the English and Biology departments and is largely "interdisciplinary" meant that people with little experience in science as well as people majoring in science were together in the classroom addressing these ideas and stories together. Some were there trying to understand what science is while making connections with literature and life, while others tried to connect what was already a fairly well developed notion of science with the new ideas presented in the course.

This was a science and literature course, and all the works read in the course addressed science in some way whether by explaining scientific theory as in *What Evolution Is*, relating science to other parts of life and to philosophy as *Darwin's Dangerous Idea* does, or through the relationship of science to the lives of characters in a story as it does for the characters of *Herculine Barbin*, *Middlesex*, and even *Orlando*. All but *Orlando* present science as an important aspect of truth though not all give it the same credit or the same value as a predictor of things to come. While Mayr, in *What Evolution Is* displays an unshakable conviction that science will allow us to learn "the real truth of about the history of the world" ((4) Mayr, page 5), Dennett, in *Darwin's Dangerous Idea*, hails scientific theory as a source of what

as "true" and evolution as a source of "dangerous ideas" relating not only to biology but to ideas and to what we may do with artificial intelligence. Dennett goes so far as to point to science as a source of good that other traditions cannot provide ((2) Dennett pages 515 and 516). Eugenides' work, *Middlesex* portrays a family that on more than one occasion makes a decision with utmost faith in science to dictate truth. The case of Herculine Barbin is different in that the memoir presented does not demonstrate as much trust in science as the readings of the reports on the condition of the writer of the memoir. *Orlando* does not address the issue of science very directly, but it does ask that the reader believe things that science says cannot happen as true within the story. These different views and uses of science provide an opportunity for the reader to think about what science is to them, what it means in society today and the importance of context and awareness when one is doing or reading about science.

We first read two works that used science as the source of truth. These were *What Evolution Is* and *Darwin's Dangerous Idea*. We then read two works that demonstrated a degree of mistrust in science while still making science essential. These were *Herculine Barbin* and more importantly, *Middlesex*. We finished with a book that used very simple "scientific" things that we have learned from experience, such as the passage of time, and played with them in interesting ways that make them important while making what we know about them unnecessary to the storytelling. This was *Orlando*, and in the context of the question of what science is, it was a very appropriate last reading.

We began with Ernst Mayr's *What Evolution Is*, which explained to anyone in the class who may not have had experience with evolutionary biology what it is and how it works. This is a science book and Mayr begins by stating that "we turn to science when we want to learn the real truth about the history of the world" ((4) Mayr, page 5). This is a very strong statement of faith in science's ability to explain it all. The fact that Ernst Mayr spent most of his life working on evolutionary science is itself a show of his great appreciation for what science can do and of how much it meant to him.

Mayr comes off as somewhat arrogant, not only when he responds to creationist ideas (which are not scientific) but also when he addresses evolutionary theory that differs from what he has discovered and accepted as "truth" (for example, his approach to theories of evolution that differ from that of natural selection in populations- especially his adamancy about the lack of any goal of evolution) ((4) Mayr, pages 77- 87, page 150). These matters are important to understanding of evolutionary processes, and Mayr must be forceful in explaining these matters simply because there have been different ways of understanding them. However, if science were not perceived as important truth this would not be an issue at all. Mayr would have had no difficulty, if he did not see science as "the truth" saying his understanding and then saying "this is one way of telling the story, there are others just as valid, but they are not the ones I have chosen to tell". Instead he outlined other stories and said, in response to them, "there is no evidence whatsoever to support..." (in this case cosmic teleology) ((4) Mayr, page 82, addressing the rather unlikely theory that evolution occurs as a result of a "strive for

perfection"), and in reference to failures resulting from theorized macromutational processes involved in transmutationism, that "they have never been found because, as is now quite obvious, such a postulated macromutational process does not occur" ((4) Mayr, page 79).

Ernst Mayr's writing clearly communicates the science behind evolutionary theories and the processes by which evolution works. Mayr also makes clear that he knows what he knows because of scientific evidence he has found or seen, because he presents his writing as "truth", and science as the way to the truth. Mayr does not address what evolution means beyond the scope of science, beyond our full understanding of the history of the world. This along with its uses for further scientific understanding and for medical research appears to be enough to support the great importance of evolution. Understanding evolution and using it to understand other workings of the world is here the goal of science. It is certainly an important goal, and for these reasons alone, evolutionary science must be understood.

We moved on after Mayr to Daniel Dennett's work, *Darwin's Dangerous Idea*, which outlined the ideas of evolutionary biology and asked that we use them for science in other areas of life, that we expand the scope of evolutionary theory. Dennett asked that we recognize implications of evolution that have not been shown by a great deal of scientific research, and some that cannot be shown by scientific research. Dennett is a philosopher and he demonstrates what the philosophical implications of evolutionary theory are, frequently asking



the reader to put more faith in science than Mayr does when he simply tells what science has shown. He frequently does this using thought experiments and stories rather than scientific explanations of the ideas he explains, but what he asks in these experiments and stories is that we see where our trust needs to be put in science.

Dennett makes an argument first that no other history of the world may coexist with evolution, stating that a creator God is not something in which a "sane, undeluded adult could literally believe" ((2) Dennett, page 18). He says this after saying that "Darwin's dangerous idea cuts much deeper into the fabric of our most fundamental beliefs than many of its sophisticated apologists have yet admitted, even to themselves" ((2) Dennett, page 18). Dennett sees evolutionary science as in direct conflict with religious tradition, but more importantly, he wants to take evolutionary theory further than it has been taken before, further than most evolutionary scientists have tried, to a place that will make many uncomfortable. He wishes to do this because this is what he sees as truth. He sees science as having a great deal of power and its truth as somehow essential, or he might not have called attention to these things.

Dennett does two things that Mayr does not. He uses evolutionary ideas to make statements about other parts of life besides our understanding of the history of the world (things such as artificial intelligence and cultural evolution), and he asserts that religion is "no longer viable" ((2) Dennett page 514) in a culture that understands evolutionary processes as "truth". These two actions show an

almost greater faith in science.

Dennett's argument for artificial intelligence hinges on his faith that scientists are capable of making computers that are indistinguishable from humans. This is a great faith, considering how much is not known about the workings of human beings. Dennett argues that because no intentionality went into the creation of humans and our intentionality is derived, robots could derive the same intentionality as we have ((2) Dennett, page 425). This argument is essentially that because we are products of evolution, there is nothing so special about us that it cannot be recreated. This hangs on a strong belief in evolution as truth, but what is interesting is the idea that such robots could be built by science. This shows just how much Dennett is presenting science as capable of achieving.

Dennett's description of memes is very much like that of genes, and the ideas about memes "survival of the fittest" and evolving as they transfer from person to person could not exist without the ideas of biological evolution and selection of traits on genes. He describes memes as invaders in human minds that transformed us into people ((2) Dennett, page 341). He describes memes as a Darwinian explanation for our culture, and states that, "like life itself, and every other wonderful thing, culture must have a Darwinian origin" ((2) Dennett, page 341). This description of "every other wonderful thing" having a Darwinian origin, demonstrates again the delight that Dennett gets from evolutionary ideas, which he also expressed in the beginning of the book when he said, "If I were to give an award for the single best

idea anyone has ever had, I'd give it to Darwin" ((2) Dennett page 21). Certainly Dennett is here expressing a faith in Darwin more than just in science, but the faith is still there. Darwin was a scientist and his ideas are, in the meme idea, transferred to more than just biological evolution. This description of cultural evolution is a demonstration of the expectation that science can explain more than it originally sets out to explain and that scientific theories can be used in areas outside those for which they are developed.

Dennett has placed a great deal of faith in science and appears to expect the reader to do the same. At the end of the book he discusses what will happen with religious tradition, the beliefs behind which are, "in a word, wrong" ((2) Dennett, page 514, in reference to the sentiment expressed in the song he began the book with, which asserts that God made us). He goes on to compare religion to wild animals to be preserved in cages, saying "safety demands that religions be put in cages, too- when absolutely necessary" ((2) Dennett page 515). Dennett addresses problems with religious traditions such as the status of women in Roman Catholicism and Islam and fanaticism in all sects. When he addresses religion and what is dangerous about it, he says things like, "if you want to teach your children that they are the tools of God, you had better not teach them that they are God's rifles, or we will have to stand firmly opposed to you" and "if you insist on teaching your children falsehoods- that the earth is flat, that "Man" is not a product of evolution by natural selection- then you must expect, at the very least, that those of us who have freedom of speech will feel free to describe your teachings as the spreading

of falsehoods" ((2) Dennett, page 519). When he says "we" it implies the enlightened and implies that the reader stands with him. What is good about religion? It has served a purpose, "kept Homo Sapiens civilized enough, for long enough, for us to have learned how to reflect more systematically and accurately on our position in the universe" ((2) Dennett page 518). Religion has kept us around long enough to finally learn the truth. This truth is what is good. This truth is what will protect us from religion. Science has created a new world.

We moved on to literature with Jeffrey Eugenides' work, *Middlesex*. This is a work narrated by pseudo-hermaphrodite Cal (Callie) and it claims to be the story of how he came to be what he is, the story of the "recessive mutation on my fifth chromosome", Cal says ((3) Eugenides, page 4). Cal knows that this is why he is a pseudo-hermaphrodite but does not pretend that it is his genes that make him who he is. Indeed, while the story of his grandparents' incest and that of his parents is the story of what led up to his having two of these recessive mutations, it is also their stories that led to them being who they are and to the nature of his upbringing, which with his genes made him who he was. Cal is not a scientist or a philosopher by trade and neither are any from his family. There is an interest and an awareness of science, however, and they use science in their lives with a sort of faith.

First, in the very beginning of Cal's story, Cal's father decides what gender his child will be based on scientific information he got from "Uncle Pete", a chiropractor who claimed that sperm carrying male chromosomes swam faster and that conceiving the child twenty four hours

before the woman ovulated would ensure that the baby would be female (which would allow the male sperm time to die off before the egg dropped and allow the arrival of the female sperm to be more timely) ((3) Eugenides, pages 7 and 8). He and his wife, Tessie, wanted a daughter and tried to assure this by following "Uncle Pete"'s advice. This may not be great science but it sounds scientific and allowed Milton Stephanides (Cal's father) to feel that he took control of the situation. The reader knows immediately that it did not work in this case (the sperm that created Cal had male chromosomes, though they did contain a mutation), so may imagine that the practice is not foolproof. However, when Milton's mother Desdemona did her traditional spoon test for the gender of the child and stated that the child would be male, Milton knew she was wrong because of "science" ((3) Eugenides, page 6). Cal says that his father was experiencing a "scientific mania" at the time of these events, resulting from the progress that he had witnessed in those years before Cal was born. Cal also says that the timing of his conception did have to be rather particular or he would not have been what he is, demonstrating his belief in science and in the fact that if his parents had not so precisely timed the conception of their second child, their child would not have been a pseudo-hermaphrodite. The reader knows that the intent was not to have a pseudo-hermaphrodite, and while it cannot be denied that Cal's parents loved him very much as what he was, it could be argued that this dependence on science to allow control over the gender of their child backfired in a way (certainly, we are glad that it turned out the way it did). It is certain that the

result of their science was not the intended result, and that where the parents felt they had control, they did not.

Science tried to make Cal a girl again when Cal was a teenager who did not menstruate and who had different genitals than other girls. Her parents took her to Dr. Luce, a specialist in sexual disorders and gender identity. After examining Cal thoroughly and interviewing her about her life and attractions, after watching videos of her as a child and analyzing all the information he had, Dr. Luce determined that while Cal was genetically male, he had a female gender identity. His report described Cal's physical condition and the reasons, based on Cal's behavior and interviews, that he believed Cal had a female gender identity. Dr. Luce told Cal that Cal "was a girl whose clitoris was merely larger than those of other girls" ((3) Eugenides, page 433). Dr. Luce told Cal's parents the actual condition that Cal had and that Cal was a girl because of her upbringing as a girl and that he had determined this from her "interests, gestures, psychosexual makeup" ((3) Eugenides, page 427). He said, "Callie is a girl who has a little too much male hormone" ((3) Eugenides page 428). Dr. Luce told them, and Cal, that they could easily fix this by surgery to "finish" her genitalia ((3) Eugenides page 433) and hormone injections which would cause breasts to develop and make her "the girl she feels herself to be".((3) Eugenides page 428).

Dr. Luce was "the world's leading authority on human hermaphroditism" ((3) Eugenides page 409), an expert and a man of science. His investigations into Cal's case told him that Cal was female.

He felt that this showed that "sex of rearing, rather than genetic determinants, plays a greater role in the establishment of gender identity" ((3) Eugenides page 437). He believed that the right thing to do was to determine her actual gender and make it so that she could live as that gender. The way that he presented his findings to Cal would have made it difficult for Cal to even think of any other possible courses of action. Because Cal read the report which said that Cal had male genetic makeup, however, Cal decided that that was that, she was in fact a boy. It was Cal's trust of science and of genes as what makes a person who he is that led him to make this quick decision, that he was a boy.

Science, for both Dr. Luce (who had a very good understanding of Cal's situation) and Cal (who was the one who had to live Cal's life), science led to absolute decisions about Cal's gender. Cal did not take into account anything besides what his genes said about him when he made his decision to live as a man. Luce did what his experience told him to do. Cal, later in life, acknowledges that there is some girl in him as well as boy. Perhaps, however, if Luce had taken the time to better explain to Cal the situation, Cal would've had a different experience, a different understanding from the moment when he realized his genes were male. Perhaps he would have made a different decision. This moment was a demonstration of the weakness of science and also of its power.

Herculine Barbin is a memoir, and probably interesting to scientists interested in the experience of a pseudo-hermaphrodite who goes from living as a woman to living as a man. Herculine herself did not seem to need a great deal

of science to figure out that she was different from other women, that she could live as a man. Her statement that "Science, furthermore, does not have the gift of miracles, and even less does it have the gift of prophecy" ((1) Barbin, page 39), though not stated in the context of her condition as a pseudo-hermaphrodite but with regard simply to her health, can be read as a judgement on science- it is not foolproof and it does not explain it all. One cannot determine by science what another person will be. But Herculine did, because science called her a man, go on to live as a man though it meant giving up a life for which she was well suited for which she had worked very hard. She faced the untruths that newspapers printed about her actions as a woman so that she could do what she believed she must and live as a man ((1) Barbin, page 90). Her faith in science that led to this action must have been great.

However, our book *Herculine Barbin* includes medical reports from doctors who examined Alexina Barbin, and the reader who looks at these cannot help but gain a better understanding of Herculine's condition. These reports describe what happened to Herculine, what her body was, in a scientific way and it illuminates the situation a great deal. Indeed, were it not for science *Herculine Barbin* might not currently exist as a book that people value at all. While the text acknowledges the limitations of science, *Herculine Barbin* also recognizes science as valuable. That science is something that must be handled with care and with full awareness of what it can and cannot do, then, is shown by *Middlesex* and *Herculine Barbin*, both of which give science great importance.



In Orlando, a person, who we meet as a boy but who as an adult in Turkey simply woke up a woman after a sleep of many days ((5) Woolf, pages 133-137). This person, Orlando, lives through the time of Queen Elizabeth and through the time of Queen Victoria, living an unnaturally long life and never really growing much older. This is somehow believable in the story, however.

None of what happens by Orlando fits with science or can be explained by science, and none of it is explained at all. Still it draws the reader in. That these things that cannot be "true" in a scientific way can be "true" within the story allows science to take a break and shows that science and the unscientific and almost nonsensical can coexist in a person's mind. A person who firmly believes in evolution and gravity and that they will not live much more than one hundred years at best, even a person who works as a scientific researcher may enjoy reading Orlando. Even if science is "truth", it does not have to influence everything.

As a science course, this course illuminated the workings of evolutionary processes and demonstrated how it could be important in the world and in our lives. It encouraged us to think about evolution in the context of stories and to recognize science as made up of stories as well. The works that we read related to each other in such a way as to make us think seriously about what science is and how it works in the world. The works we read that demonstrated the strength of science (What Evolution Is and Darwin's Dangerous Idea) along with the works we read that showed a more cautious view of science (Middlesex and Herculeine Barbin) allowed us to think about the role

of science and science's value in a way that we might not in a class that simply asked us to learn what evolutionary processes are and then move on to apply them to literature without thinking about what it meant. Orlando finished the course with a story that could not happen based on any scientific experience, but that the reader frequently believed despite this. There is a power in science and there is also power in good storytelling.

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### **Limitations of Choice in Gender for Hermaphrodites**

Name: Lauren Tom

Date: 2005-05-11 18:30:59

Link to this Comment: [15122](#)

# Story of Evolution-Spring 2005 For

## The Story of Evolution, Spring 2005 Final Web Papers On Serendip

A person's ability to make a choice is defined by the amount of control they have over the situation. In *Middlesex*, *Herculine Barbin*, and *Orlando*, the three hermaphrodites face the issue of changing genders with varying degrees of choice. How much choice is available to each character is limited mainly by two types of factors – the biological and the cultural. However, by gaining choice in one area, the character can lose the ability to choose in another. All choice is limited to a degree by biological and cultural perceptions. This can eventually happen to the point where characters believe they have only one option, or where choice exists only as a decision as to which type of factors will have greater influence over the characters' actions.

Biological factors in choice concern the physical bodies and genetics because it is the body of the hermaphrodite that creates the opportunity for choice. In *What Evolution Is*, Mayr's discussion of evolution deals with the body and its genetics, bringing up the point that "the capacity for nongenetic modification is under strict genetic control" (Mayr 142.) No matter what changes an organism may make to itself during the course of its lifetime, those changes must be within the original limits imposed by the

body. The body, being formed by its genotype, has had these limitations defined from before birth.

Hermaphrodites, being entirely neither one sex nor the other, seem to have been granted more choice by their bodies than other people.

However, while the opportunity for greater choice may exist, decisions concerning this choice can be limited by perceptions almost as much as by the body. The mind, as well as the body, is formed by the genotype, so the brain, the physical structure of the mind, has been subject to evolutionary forces. As Dennett points out while discussing the implications of Darwin's theories in *Darwin's Dangerous Idea*, "from the gene's 'point of view,' a body was a sort of survival machine created to enhance the gene's chances of continued replication" (Dennett 325.) From this perspective, which Dennett draws from Dawkins' *The Selfish Gene*, to whatever extent behavior is affected by genes, the amount of choice in that behavior is limited. Genes that lead to unfavorable behavior do not get replicated, so the only bodies, and thus minds, that are produced are those conditioned to behave in the interests of the genes (Dawkins.) By this theory the genes that affect gene-reproducing behavior would be replicated, meaning that free will would be limited because those individuals who acted in a way contrary to their genes' interests would be selected against. If free will exists only for those who act according to a higher command, it may be the power of that command rather than choice that forces the actions.

Even though the brain is formed by genetics and evolution, other influences than genetics allow the mind to

transcend the power of biological evolution. Dennett argues that, in addition to the evolution of genes, humans are affected by the evolution of "memes," or ideas.

"Anyone who worries about "genetic determinism" should be reminded that virtually all the differences discernible between the people of, say, Plato's day and the people living today... must be due to cultural changes, since fewer than two hundred generations separate them." (Dennett 338)

In the evolutionary time scale, humans as we think of ourselves have not existed long enough for meaningful genetic change to have occurred. While this explanation does dismiss the possibility that organisms have been evolving behaviors that favor their genes since the evolution of a brain, possibly earlier, Dennett's argument reopens for humans the ability to choose in defiance of biology. Any control our genes have over us is in the parameters for choice they set in the form of our bodies, and in the behaviors they allow based on those bodies.

By Dennett's argument, control by genes is being succeeded by control by memes, building blocks that form ideas the way genes form a genetic code (Dennett 341.) However, while collections of memes may be the influences that define minds, they are not as predetermined and isolated as genetic codes.

"When memes come into contact with each other in a mind, they have a marvelous capacity to become adjusted to each other.... The very creativity and activity of human minds as temporary homes for memes seems to guarantee that lines of descent are hopelessly muddled." (Dennett 355)

Memes work together within the whole

that is the human mind, but they change one another as well. New memes enter the mind every moment of the day, and each one has the potential to change any of the others. When making choices, conclusions come from this combination of memes that forms the mind. The memes a person absorbs influence that person's choices, changing the way that person thinks. Culture, which can be viewed as a vast collection of memes drawn from the people who are immersed in it, has a very strong influence on these choices by being an invisible background against which people's thoughts occur.

In *Herculine Barbin*, the culture in which Herculine lives affects her transformation from female to male. She lives in a time period when "it was no longer up to the individual to decide which sex he wished to belong to.... Rather, it was up to the expert to say which sex nature had chosen for him and to which society must consequently ask him to adhere" (Foucault ix.) Perceptions of gender are related to perceptions of culture, because part of gender identity is an individual's place in society. The cultural viewpoint was that gender was incontrovertibly defined, so choice, for people living in that culture, did not exist. Gender was believed to be a fact, so the culture contained no mindset for the possibility of choice, even when the body allowed it. Herculine's own perception of her gender comes from the way her culture teaches her to view gender, meaning that at some fundamental level she is unable to accept the concept of choosing her own gender. Even though she grows up as a female and seems to identify herself as female, Herculine speaks as though her transformation to male was an unveiling of the truth that she did not have the

power to prevent.

The cultural pressure on Herculine's perception of her "one true sex" being male is present throughout her writing, particularly in her descriptions of her transformation. "It now remained for [the doctor] to bring about the correction of an error.... This inevitable outcome, which I had foreseen, had even desired, terrified me now like a revolting enormity" (Foucault 78-9.) Despite her fear of living as a male, Herculine is not able to believe that she can remain female. She even goes so far as to deliberately bring about her transformation, rather than trying to hide her sex. Herculine is unhappy with her life long before her transformation to male, so bringing about the transformation may be an attempt to justify her lifelong depression, but it is also because of an underlying belief that she is, on some level, a "true" male. Society's refusal to accept sexual ambiguity affects Herculine to the point where she can't imagine living, even living happily, as anything other than her biologically true gender.

Despite the pressure of society's ideas forcing her to conform, Herculine does have an element of choice in her transformation. She is able to choose the time when she becomes male, rather than waiting until society uncovers her secret. Herculine views being biologically male not only as truth, but as an aspect of her fate predetermined by God. She laments, "They were fine days of a life that was henceforth doomed to abandonment, to cold isolation. O my God! What a fate was mine! But You willed it, no doubt, and I shall say no more" (Foucault 87.) Herculine believes that her sex was not determined by

chance, but by God's will, meaning that any denial of it is also a denial of her faith, and thus doubly unthinkable. With these aspects of her life unchangeable, Herculine makes the choice to take control over her fate in the only way she can. The ideas that define Herculine's mind have left her very little choice in how to act concerning her gender – she is a male, she must conform, she is fated for unhappiness – so the decision of when and how to reveal herself as male is the only choice that remains for her to make.

Herculine's choice exists in the only space that is not defined by the cultural and biological factors of her life. Because of the meme embedded in her culture that a person has only one "true" gender, the evidence of Herculine's body declares her to be male. Herculine manipulates her culture's perceptions to give herself a limited amount of choice in the time of the revelation, but the price of this choice is a life of suffering. "Why should I go and cast myself into a future that was uncertain at the least? Solely because I believed that I had committed myself.... This accursed obstinacy was a matter of false pride" (Foucault 113.) Herculine's choice puts her into an even worse situation than she was in while living with Sara as a female, leaving her to try to create a new life as a male in a world where she had been known as female. At the time of her decision she believes the change to male is inevitable, and that control over her fate is better than happiness, but once she realizes the kind of life her choice has condemned her to, she regrets it. In hindsight, she decides gender roles are not as defined as her culture would have her believe. Her choice exists only at the cost of her happiness because, in order to make the choice, she had to accept the



inevitability of becoming a male.

While Herculine's choice is clearly limited by cultural and, to a lesser extent, biological factors, the limitations of choice for the other two hermaphrodites are less obvious. In Eugenides' novel *Middlesex*, Cal is faced with a single moment when he has the option of choosing between becoming male and remaining female. However, the choice that exists is ultimately not about gender. Like Herculine, Cal's mind is structured by his culture and his body, but different types of influences on Cal create a different version of the choice from that which Herculine faced. *Middlesex* is very focused on the role genetics plays in Cal's life, to the point where the story can be viewed as the history of the gene's descent, rather than the history of the Stephanides family. Cal begins his story with an invocation to the Muse:

"I want to get it down for good: this rollercoaster ride of a single gene through time. Sing now, O Muse, of the recessive mutation on my fifth chromosome! ... Sing how it passed down through nine generations, gathering invisibly within the polluted pool of the Stephanides family.... Sorry if I get a little Homeric at times. That's genetic, too." (Eugenides 4)

Cal mingles genetics with his family history until his genetic traits are inseparable from his learned behavior. Cal's obsession with his family's history and how he came to exist colors his decisions with the influence of biological factors. Because Cal views this single gene as so important in defining his life, he unknowingly allows the theory of the selfish gene to influence him by virtue of the role in his life he allows it to play. Cal feels that his body has control over him because the root of his problems lies in an aspect of his body, and by feeling

controlled Cal submits to control, whether it exists or not.

Part of what fascinates Cal about the biological aspects of his existence, both as an individual and as a hermaphrodite, is the role chance plays in it. As Mayr points out, chance and randomness are important aspects of evolution, but their evolutionary role is in part because of their effect on the development of individuals (Mayr 119.)

"The timing of the thing had to be just so in order for me to become the person I am. Delay the act by an hour and you change the gene selection....Not me but somebody like me might have been made that night. An infinite number of possible selves crowded the threshold, me among them but with no guaranteed ticket." (Eugenides 11)

Like Herculine, Cal has no choice about being placed in situations that occur because he is a hermaphrodite, but rather than attributing this lack of choice to fate, he blames chance. Had just one of any number of details been otherwise, he might have been a different person, perhaps a hermaphrodite or perhaps not. Because of a series of chance occurrences, he becomes Callie, and later Cal. This does not only refer to events such as two incestuous marriages or the Stephanides family moving to America, but to the genetic processes that create Cal. Cal is very aware of the random nature of the biological processes that form a fetus. He focuses on the results of a single gene because he knows how much his life has been defined by the placement of one gene that, under slightly different circumstances, he might not have inherited.

Biology and genetics are strong influences on Cal's ability to choose, but

they are not the only ones. When he is faced with the possibility of choosing his gender, Cal is torn between remaining a female and becoming a male. At this point he does have a choice, but it is in choosing which set of pressures will rule his decisions. Before his choice to become male, Cal encounters new memes so powerful that when they combine with the memes currently forming his perceptions of the world, they create a perspective from which he views becoming male as his only real option. In the New York Public Library, Cal consults Webster's dictionary, following a series of cross-referenced definitions until he identifies himself as a monster. "There was graffiti in Webster's but the synonym wasn't part of it. The synonym was official, authoritative; it was the verdict that the culture gave on a person like her.... It explained so much, really" (*Eugenides* 431.) Because Cal views the dictionary as an absolute authority drawn from the combined memes of his culture, he unquestioningly incorporates the ideas he takes from the dictionary into his world view. Like any meme becoming part of a mind, the definition of hermaphrodite as monster changes until it finds a place in Cal's world view – that of self-identity. The dictionary shows a correlation between hermaphrodites and monsters that might be unspoken by individuals but is present in the culture.

While the dictionary may hold the essence of a culture's views on words and meaning, it also holds the culture's biases on those views. The black-and-whiteness of American society's view on hermaphrodites in 1974 comes across in the dictionary's cross-reference of "monster," while the individual experiences of hermaphrodites are likely

to be far from black and white. However, because these individual experiences are not referenced in the dictionary, having been overwhelmed by the views of the culture as a whole, Cal does not absorb them along with the dictionary definition of hermaphrodite. This gives Cal a belief in a "true" gender similar to that which Herculine has. The fixedness of the definition from which Cal draws his conclusions leads him to accept what he later assumes to be the fixedness of his body's gender. When Cal secretly reads Dr. Luce's report defining him as a male pseudo-hermaphrodite with a female gender identity, the unchanging nature of the dictionary definition comes back to haunt him by making the physical, biological nature of his body seem to be the only truth. In a letter to his parents, Cal says, "I am not a girl. I'm a boy" ([Eugenides 439](#)), as if the issue were as simple as that statement. After Luce's complicated analysis and the sexual ambiguity of Cal's previous life, this appears to be a narrow way for Cal to define himself, if in keeping with the narrowness of defining himself by a dictionary definition.

One of the reasons that the cultural memes Cal encounters just before making his decision have such a profound effect on him is because, before reading Luce's report, Cal's gender identity does not seem to be fully formed.

"The adolescent ego is a hazy thing, amorphous, cloudlike. It wasn't difficult to pour my identity into different vessels. In a sense, I was able to take whatever form was demanded of me. I only wanted to know the dimensions.... My mind was curiously blank. It was the blankness of obedience." ([Eugenides 434](#))

In the moments before making his

choice, Cal has the potential either to submit to society's pressure to avoid change and remain female or to follow the biological form of his body and become male. He does not seem to define himself as male or female, and he is willing to obey Luce's command to remain female because that is what he thinks is the truth. However, the contradiction in Luce's report makes a greater impression on Cal's unformed gender identity than Luce's speech, so that when Cal draws conclusions about what he thinks the "real truth" is, he bases his conclusions more on the report than on the speech. Luce's report has the thread of lies woven through it, not only because the reassurances Luce gives Cal are different from the message in the report, but because the information Cal provided Luce, on which the report is based, is false. Because the report is hidden, as is much of the truth in Cal's life, Cal believes it to be more accurate than Luce's speech, and because Luce's decision that Cal is female comes from lies Cal told him, Cal assumes that the opposite conclusion must be true.

All these conclusions have beneath them the constant stigma of the dictionary's reference to monster, which Cal quite naturally fears. Cal's need to find his "true" gender comes from a wish to define himself as other than a monster. The hermaphrodite is cross-referenced to monster because American culture finds the idea of two sexes combined in one body horrifying, so by identifying himself as only one sex, Cal is trying to remove the aspect of himself that causes this horror. He even goes so far as to separate his identity as Callie from his identity as Cal. "When Calliope surfaces, she does so like a childhood speech impediment.... It's a little like being possessed"

([Eugenides 41.](#)) The present Cal who narrates the story no longer associates himself with the female gender, to the point where any feminine trait he experiences feels like another person's ghost acting through his body. Later in life, Cal protests that "gender was not really all that important" ([Eugenides 520,](#)) but by continuing the separation of his past feminine self from his present masculine self he shows that the idea of monster has not completely faded. Genetics and biology create the idea that there is a biological truth to find, and the definition of monster means that this truth must be revealed. This ideas, combined just before Cal makes his decision, mean that the only choice Cal can accept is to become male.

The hermaphrodite who appears most able to transcend biological "truth" is Orlando, from Woolf's *Orlando*. This is possible because the biological aspect of her gender transformations is rarely discussed, and then only in the most general of terms. "He stood upright in complete nakedness before us, and while the trumpets pealed Truth! Truth! Truth! we have no choice left but to confess – he was a woman" ([Woolf 137.](#)) This is the closest to a description of the process of the transformation as Woolf comes. Orlando seems able to switch from male to female with relative ease and little concern for the genetics that should go with such a change. Because of this, she lacks many of the biological elements that affect Cal's and Herculine's ability to choose. Orlando does not appear to be a hermaphrodite in the physical sense that the other two are, and her gender is not as much a physical property as a mental property, as influenced by the world around her as the rest of her being. Because of this, Orlando does not have

the perception of a single true gender to which she must conform. Rather than moving from being male to being female in one moment of choice, she takes on different aspects of gender identity at different points throughout the novel.

Orlando's ability to transcend the biological aspect of gender identity is part of her identity not as a body, but as an idea. She exists outside of the physical world in time as well as in biology, but to balance this she is very strongly influenced by the changes of the culture in which she lives. "Such is the indomitable nature of the spirit of the age however, that it batters down anyone who tries to make stand against it far more effectually than those who bend its own way" (Woolf 244.) The spirit of the age affects Orlando's actions both when it fits her personality and when it does not, even to the point where it forces her to desire marriage against her own nature. The spirit has such power over Orlando because so much of her is formed by ideas. Any idea, on encountering another idea, is changed (Dennett 355,) and with every shift of culture around Orlando, she alters correspondingly, both in body and in personality. There are early ages in which Orlando is male, intermediate ages in which Orlando can act either male or female, and later ages when Orlando is female. Her changing gender reflects changes in cultural perceptions of gender.

It is this shift of culture and being that allows Orlando to be so many different selves at once. When new ideas enter a mind, they do not replace the old – rather, they come together to form different ideas that have both the old and the new elements (Dennett 355.) Just so,

Orlando does not lose any aspects of her former selves when she takes on new selves in response to new ages.

"The selves of which we are built up, one on top of another, as plates are piled on a waiter's hand, have attachments elsewhere, sympathies, little constitutions and rights of their own... for everybody can multiply from his own experience the different terms which his different selves have made with him."

(Woolf 308-9)

This description of how Orlando has come to have so many selves is very similar to Dennett's discussion of memes combining. Orlando's selves are combinations of memes, much like every individual's identity, but hers are unique in that they have no physical element to influence them. Orlando embodies the behavior of ideas, with her physical self affected by them, rather than affecting them. The extent to which Orlando exists in the physical world is the extent to which she has been defined by culture. She has the ability to switch genders as cultural perceptions change, but the same lack of biological limits that allows her transformations prevents her from choosing where and when these shifts of gender occur. Being so defined by ideas may allow Orlando to transcend the limitations of the physical body, but it does not entirely free her from a limited gender identity.

The two factors limiting a hermaphrodite's ability to choose his or her gender, biology and culture, combine in different ways depending on the individual in question. The amount of influence biological factors have over individuals depends on the memes they have absorbed from their cultures. While biological factors can remove choice when the idea of "truth" is added to



gender identification and limit choice by leaving open only one possible gender, cultural perceptions limit gender identification just as strongly by eliminating ways for individuals to consider choices. Choice exists for hermaphrodites only in the narrow areas limited neither by biology nor culture and may, in the end, be nothing more than a decision about which pressure the individual prefers to obey.

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### **Birth of Consciousness**

Name: Maureen En

Date: 2005-05-13 00:31:26

Link to this Comment: [15147](#)

## The Story of Evolution, Spring 2005 Final Web Papers On Serendip

Birth of Consciousness  
by: Maureen England

Woman lay down among the other living things of the world, she sighed, and gave herself up to the stars.

At twenty-six, her life, as she knew it, was over. The primordial fathom above her stretched its arms out in a loving embrace. It clawed at her, pulling her, keeping her from stability. Her head began to swim with light and flecks of the infinite. Her eyelids refused to shut against the beckoning abyss. She clung on to the lip of Big Bear, seeking refuge from the continuous volley of arrows erupting from Orion.

With every moment the intensity of reflection increased its unbearableness. The silence echoed in her ears till its cacophony seemed to shake the very Earth from its delicate puppet strings in the galaxy. A crack formed by her feet, near her feet. It swallowed her shoes; it's invisible teeth sucking up her laces like spaghetti noodles. She threw her arms violently to each side as her back suddenly grew weightless and leaden. Sinking into the ground beneath her, among the earthworms and moles, simultaneously flying with the weightlessness of summer.

She shut her eyes.

Silence.

Slowly awakening, the wind blew gently about her ears, whispering countless tales of its heroics against all sorts of evil monsters including dragons, Cyclopes, and corporate bankers. Woman giggled with delight. She was sixteen, a virgin, caught in the inevitable battle of the sexes at adolescence; she liked boys, liked their smell, liked the way they walked. It was true, she had even kissed a boy once. The wind gasped. Now she really was going too far, wasn't she? It wouldn't play with her anymore.

She was left with her breath, caught in her throat. Suddenly, being alone was not such a comforting feeling. She rapped her knuckles on the earth beside her. Still there. Nothing's changed. She is twelve. The earth made no reply. It didn't understand her. Things weren't real anymore. It wasn't fair. The long grass tickled the thin extension of skin between her index and middle finger. There was a bug on her foot. She could feel each tiny foot of, the ant was it? There was a strangeness to it. She became very aware that her feelings were not her own; she was not alone. There were things everywhere, living, breathing things, sustained by all sorts of life and death. But what did they matter? What did it matter? They weren't her, she wasn't they...them. A word stuck in the back of her throat. It clung to the soft of her esophagus. Unceasingly unsympathetic, it could neither be swallowed or spit out. She didn't know what it meant.

One leaf on a nearby tree snickered. A veritable symphony of snickers grew out of its neighbors. The whole tree above her was laughing. She liked the attention.

Maybe, as long as they were looking at her, she could exist. They must never stop. She smiled and wiggled her toes into the musty dirt, kicking up clumps of grass root, some of which landed on her yellow jumper. The tree continued to laugh.

"How are you?" asked one quite impertinent twig who would not laugh with the others.

"Oh, shut up," yelled a berry, who liked to lord over the canopy as he was the only one with a yellow spot, not knowing his yellow spot was really an undesirable quality.

Woman thought about her answer. What was the right thing to say? She was always getting this mixed up. When was she supposed to be good? When bad? When sick? And what did "ok" really mean? She decided to answering in the affirmative.

"I caught a snail today." Her voice rang out and crossed through the overhanging branches of the tree. "It was a big one. I let it crawl all over my hand. It left this slimy trail, and it was white with purple spots" – at least she thought it was purple. Anyway, it sounded right.– "and it almost fell out of my hand two times but I picked it back up and put it right back here–" she indicated the middle of her palm to the leaves. "– and he didn't really like my hand. It might be because I was all sweaty– and he didn't like the salt because snails don't like salt, it's true, I read it in a book once– but I was playing all day and my hand was all sweaty, so he didn't like it, I think. But I put him back because he probably was missing his family. What do baby snails look like? What do boy snails look like? And what

do girl snails look like? How can you tell?"

A few of the leaves left their lofty bower and fell gently upon her legs. They didn't want to snicker at her anymore. They just wanted to hold her. Was she getting cold in the damp grass? She really ought to put a sweater on though; nighttime this time of year is generally unseasonably cold.

"My dear one." the leaves tickled her bare legs. "How old are you?"

"Such a preposterous question," interjected the berry; it was really very rude. "What could it possibly matter how old she is? Nothing will change it? She'll just be like this, annoying and infantile, always asking questions when she can't just accept what she is, unimportant."

"Hush! Nobody asked you." The leaves quickly chorused in defense of the poor girl with tears in her eyes. "You see," the leaves added, "he doesn't really like snails. He's scared of them."

Woman giggled. Her eyes glistened not with sorrow, but with vitality.

"Now, how old are you?"

"This many." Woman triumphantly declared, displaying six of her perfectly pink and delicate fingers.

She couldn't remember when the laughter and cooing stopped. But it was all very silent again. Why couldn't she see anything? She reached her hand up to her eyes. They were shut, that's right. She liked this game. She banged her tiny fist on her eyes again. She couldn't see her hands, but they were there somehow. She could feel them, could control them;

see, there was one finger and another she felt as she took them out of a fist one by one. If she opened and closed her hand rapidly, it kind of tickled. It was wonderful.

A burst of noise erupted uncontrollably from her mouth, laughter. It echoed in the still night. She liked the sound of it. It was crisp and broke the somber night like the tinkle of fine china. She made more. There were some laughs she couldn't keep in. They came out of her like a burst of energy, of life. Sometimes her whole body shook with it. She felt this could go on forever. What fun!

But she was hungry.

She didn't know when she had eaten last, maybe it was never. It felt like never. Woman didn't know what to do. Her stomach was empty. What did it mean? She became very aware of her mother.

This stuff under her; it was strange. She didn't like it. It was wet and uncomfortable. Everything was dark. She couldn't see. Why couldn't she see anything? If she couldn't see anything, maybe nothing could see her. How was her mother to know where she was? Something was boiling up inside of her. Woman scrunched up her face and let go a mournful howl. She kicked her feet and flailed her arms, hoping to push away the darkness, the emptiness, the aloneness.

If we could have seen it, it was a beautiful and a terrifying sight. Woman lay naked and anything but still, a baby, in the middle of a secluded and vanishing meadow. But nature could not leave her thus for very long. If she could have seen, for she had forgotten she could control her eyes, woman would have been still

and comforted for what was happening.

From the horizon, a blue smoke was growing and ascending and descending from its beginnings. It was not in the least frightening, the way that love is never frightening. It moved with speed, though intermittent. It seemed to grow and gain strength from itself, from its very existence. It did not engulf the baby all at once. It tickled her toes and rubbed her legs the way parents do when giving their baby a bath. It became her blanket, shielding her from the damp. It wrapped around her naked form, enveloping her.

Woman stopped crying. She could smell lilacs and primroses. The sweet nectar stung in her nose; she drank it in willingly. Warmth melted through her like a hot drink; spreading from the tips of her toes, down her ribs, up her neck; her ears grew hot.

But she didn't have ears, nor neck, nor ribs, nor toes. She was in the infinite. She was the infinite. There was a connection between her and the whole world. She understood now, what it had all meant. Experiences awoke within her, shared throughout the world. Out of the mist of the universal, she felt a hand, reaching out to her and wanting her. It was welcoming and comforting, like home.

There Woman lay, twenty-six, facing the heavens, asking for a sign, and answer. As she lay her hand on her protruding stomach she felt a tiny kick. She opened her eyes, and smiled.

From a distance, the scene was impenetrable, an unexpected sequence of events had led to a solitary figure, laying herself down in a field, and contemplating existence. Many had done

it before, many would continue after, each searching for answers, for truth, and getting a kick and a smile.

The stars winked to each other. At their advanced age, many had born similar aspirations, to know the truth. But what they were never told, is that there was no one truth to search for. The older stars mocked the younger ones. They knew, they always knew. The truth lay in the time that had passed, the time which was to come, the consciousness born from tragedy and humor, love and loneliness. The evolution of thought had always been there, unchanging. It lived in every living being, in the souls intermingling in the vast infinity of space, in the birth of knowledge and the existence of pain. There would always be certain things in life, the stars knew that. They had seen it pass from generation to generation, always the hope existing in each that this was the one, this age would find the answer.

The stars laughed with each other. The tree, the leaf a part of it, the berry falling with seed, the wind carrying it, the earthworm, the ant, the snail, the grass, the woman, the baby. They would all learn, they would all know. It was coming to them, and though they could not see the end, they knew it would be magnificent.

*"Within, without the cosmos wide am I;  
In joyful sweep I loose forth and draw  
back all.  
A birthless deathless Spirit that moves and  
is still  
Ever abides within to hear my call.*

*I who create on earth my joys and doles  
To fulfil my matchless quest in all my  
play,*



*I veil my face of truth with golden hues  
And see the serpent night and python day.*

*A Consciousness Bliss I feel in each breath;  
I am the self amorous child of the Sun.  
At will I break and build my symbol  
sheath  
And freely enjoy the world's unshadowed  
fun.*

*By Sri Chinmoy  
Excerpt from "My Flute" " (1).*

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*1)Poet Seers*

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### **A Story In Sixteen Moments (And Several Versions)**

Name: Eileen Tal

Date: 2005-05-13 10:21:27

Link to this Comment: [15154](#)

## *Story of Evolution-Spring 2005 For*

*The Story of Evolution, Spring 2005  
Final Web Papers  
On Serendip*

*Eileen Talone  
The Evolution of Stories (223)  
Final Project*

*Sixteen Moments of an Affair, In Her Own  
Words*

*1) Meeting.*

*I was prepared to ignore the man who sat down next to me on the bus. I made myself take out my headphones and talk to him, not because he was giving off any heat or disturbing my studying, but I had heard the tape before, and the idea that I would sit bored rather than even peek out the periphery at the person next to me just because I had too much pride to appear eager was too much. So I spoke to him. By the time the bus had pulled out, I felt something as he told me his name and I willed myself not to make the stupid jokes he must have heard before.*

*Using advice given to awkward kids, I asked him about himself, and as he became animated and I listened and watched, the tension released. When I was talking, I could watch his face react, and the first thing I had seen of him, a cold sore at the corner of his full lips, I realized I wanted to touch it. Talking became buying time as I scanned my brain for ways to be more attractive or find ways to abort the growing feeling. I hadn't washed my hair, I knew I wasn't hot like Foxy Brown, his childhood crush (revealed during this conversation), but despite my defenses pushing down on my swelling chest- like the Grinch's heart or a bird about to crow- I couldn't help liking him.*

## *2) Waiting*

*Although I had two boyfriends at the time, I couldn't really feel for them, as the one who had almost thawed me (when he sang "Feels Like Old Times", the song from Annie Hall) had been incommunicado for too many intervals for me to really pretend he really liked me, and the other was so openly selfish that he remains the only ex I can stand, because we never attempted to know each other in any other sense than biblical. The quote "The greater the hope,*

*the greater the horror" returned to me, and I thought about the last demon out of Pandora's box, hope, full of everything you want to hear, with no strings attached and no proof.*

*I was tired of being comfortable and available, doing a job that merited if not pay then at least reciprocity, which not even Dominic (the singing artist) gave. Hope had been squashed under familial depression, heavy things afloat in alcohol, which won't freeze in Pennsylvania winters. Sex was nothing but work, and no one ever stayed to make a tangle of arms, legs and blankets. What about him gave me hope? That I had met him sober, that I had had to use my rusty social graces, that he was the first chance I had taken in what felt like years (instead using liquor, exes, and other safety nets to cushion any falls). I guess I felt like finally I was doing what normal people do.*

### *3) Dancing*

*I had gotten drunk before I arrived at the party, because he hadn't responded to my invitation. I got dressed up in a caricature of a woman, and embraced my girlfriends happily as I lost hope once again. Tottering in from the snow, greeting girlfriends and scanning for unclaimed men, I saw him standing alone in a t-shirt, looking shorter than I remembered, and I regretted the vodka instantly as my long presumed dead faith in boys began to tingle, like a foot that had been sat on. I tried to suppress my advanced drunkenness as I greeted him and admitted how happy I was to see him. He asked me to dance, so we went in the other room, which was dark and empty but for people clumped in corners, standing while the stereo played.*

#### 4) *First Kiss.*

*Talking and dancing, losing the high heels and moving in closer, talking in each others' ears moved to the heated silence that wouldn't have surfaced if we had left room for the Holy Spirit. I got to caress his bald head as we kissed, swaying artlessly, hanging onto his neck dizzily, drunk off hasty vodka shots and this preposterous windfall of a man. All the past and future Eileens yelled, made snarky comments, jumped up and down. Meeting his family from his billfold, swinging our feet as we took a break, everything was in the effortless momentum of the present tense and the fullness of the endless gerund, and we kissed in a dark corner, my chorus of selves reminding me as I kissed that he hadn't even drunk, that he liked me somehow, anyhow.*

*Kissing goodbye under the snow-globe sky, encapsulated in someone else's myth of square jawed Latin lovers and uncalled for romance, all I felt was a real god damn throwback emotion- unguarded gratitude, and all kinds of unironic bloomings rushing to the gate. Fools rush in, and sincerity-starved wallflowers are the first to lose their heads.*

#### 5) *Courtship.*

*He called me every night for the week in between our first kiss and his birthday party. My closest friend told me this was too fast, but all I could think of was the last time a boy had called me so often- my first boyfriend in eighth grade. Was it because he was too young to understand the rules of college, that no one ever buys the cow or invests this much time in sweet-talking her before the deal is struck? Cynicism has little natural appeal, and its only warmth is in its shielding properties.*

*Hope is infinitely more alluring, and so I responded, Pavlovian, to the phone's trill at night, and began curating the details of his life as we became acquainted (giddily, on my part).*

#### *6) Birthday.*

*'Intoxicating' covers the event. Meeting his friends, who said they had heard about me. Laughing and dancing with his friends. Him dedicating a song to me, calling it his special song (the song being the only reference to my name outside of Irish popular culture). I have not lived as a love-starved waif, subsisting on semen and leftovers for two years, but in this kind of sensory overload, you realize the paucity of attention and affection that had been normal and acceptable. It was too much for me, who still blushes to hear her name said aloud (sickening, perhaps, but true anyway) in mixed company, so when we danced to his song I kissed him. When he asked me if I wanted to sleep over, it wasn't the pungent rum but the fever of acceptance and happiness that moved me to tell the truth without thought to consequence: "Yes, yes, and always yes"- a monk's prayer.*

#### *7) Staying Over.*

*It was never as passionate as it was that night, and he never worked that hard again (a fact I only saw in retrospect). The moonlight and the cast away feeling of making love all night- leaving the bedroom proper to his roommate- conspired to make me feel somehow adrift. There was nothing more beautiful to me than his face, and tired as I was, my mood was not fatigue but languor. Familiar (but not to me) senses of waves breaking, chests arched like birds, all manner of nocturnal life populated the*

*metonymic landscape of the littered living room floor where we nested on stale couch cushions, surprised at the life in us.*

#### *8) Morning After.*

*Eating cereal and watching pirated DVDs in the early morning returned me to Saturday sleepover mornings over ten years ago. But here was this gigantomannish-boy sitting next to me, kissing my cheek and trying to get me to eat chocolate in the morning with him. The sun exposed my whiteness, but I wasn't diminished, and in the light, his skull stubble glistened. If I were able to I would have crowed, but instead I just beamed away pumpkin-headedly at the goofy man sharing the conjugal couch with me.*

#### *9) Immersion.*

*We spent Saturday and Sunday between beds and sidewalks, walking in the unseasonably mild afternoons and hibernating with beer and chocolate in the evening. The sex was one thing, the humor another, the unfamiliar amount of physical rowdiness (something I hadn't had since my water balloon-guerrilla boyfriend in high school) still another, but camping out in my bed, his life came out in vignettes, all attached like subway cars. The amount of thought he had given to life, to his family, to relationships reminded me of my best friend and me. He'd surprise me sometimes with different things he'd say, but like the first time we had sex, it was never as candid, languorous, negotiable, comfortable. Like the weather, it was a freakish blooming.*

#### *10) How It All Felt.*

*Even with the cataract of nostalgia (admittedly lost in the process of this*

*intense survey of the relationship), I can remember feeling pretty normal. I had come to expect and enjoy his affection and friendship, and while the trysts were oddly scheduled- weekends, lunch breaks and Sunday nights- I loved seeing him from a distance and hearing his voice on the phone. I loved running into him unexpectedly and thinking I really know that guy, and no one else here knows the stuff I do, and it's all beautiful. He'd buy me things, most of which I wouldn't have bought, but loved because he had given them to me; call me; horse around; he made me happy with all the intimacy he offered and delivered. I liked the squabbles and shenanigans, which, with the stiffness of age and loneliness, I thought I had lost the boldness to take part in. I forgot how funny his name was to strangers, hearing only the name that stood for the man who stood for his family and his borough, who carried me like a bride to bed, the way my dad used to carry me until I got too tall and he got too sick. I acclimated to the soft conversion of th to f in his mouf, to his verbal tics (and acquired some of them) and interests. But the trouble with defrosting a wintry woman is you never know what quiescent spark survived, with what life she will respond to stimulation. I adjusted well to domesticity, to a routine, to company, and maybe if I had retained at least some of my cynicism, I might have been less crestfallen.*

### *11) Break Up.*

*When he skipped our unspoken lunch date, I took it positively, thinking we were becoming less hip-joined insecure and evolving into a comfortable place. I waited at the bus stop for him (because I liked seeing him- as if it could get any simpler than liking him) and asked why he looked sad. He let me talk about timely things*

*(empty offerings carrying social cues, indicating intention and desire), and he turned to me, suddenly tall and far away, and said that the relationship wasn't working for him.*

*I don't know why I would think it was a joke but that's what I recall feeling at first, like an anesthetic preceding the pain. Maybe to deflect the pain of being dismissed, returned, passed over, told that solitude is preferable, I didn't let myself behave like a heartbroken girlfriend, since I had just been relieved of that title. In a sad act of social alchemy, I retained the brine of the withheld tears of the rejected woman, and questioned him as a concerned friend or knowledgeable outsider.*

*Although my refusal to react, beyond the self-effacing repetition of my surprise, was so quickly enacted that I know it was self-preservation, I wonder if I was sparing him from what he was asking to be spared- me. I accepted his open armed farewell hug, confused, and walked away, waving goodbye as though it had been an amicable parting to a relationship I had not cared about, that I had not just lost all rights to knowing a person I had spent most of my time with. I had to go to class, and even though I knew he couldn't see me, my body couldn't cry. I didn't feel entitled to grief, as it would have revealed my tragic stupidity. So set in a brief emotional constipation.*

## *12) Broken*

*Denial was quickly followed by getting really high with a good friend and trying to disappear into the Middle Ages, which we swore we could sense hidden in a field outside a housing development. All his gifts were dumped into the free box, with*



*the exception of his favorite book, because it was the only non-crappy gift he had given me (excepting the cookies he had baked which spelled out "I [heart] EILEEN"). The focus of my fury in the joyless St. Patrick's day following the breakup was "false advertising", as I put it (to any of my friends who would listen): between the cookies, the legitimacy of a Facebook-status relationship, and his encouragement of my long-smothered hopes of intimacy (in the most elevated and complete sense of the word), he had been promising a future he had long (revealed on the therapist's couch I provided for him as he dumped me) been doubting and fearing. Not only had I been returned- an impulse purchase stray cat brought back to the SPCA, utterly dejected- but I had no idea when he began regretting me, thus coloring all my happy times with doubt and intense shame at my obliviousness.*

*When I was alone, I would vacillate between hating him and wishing he would break the silence. Getting crashing drunk and kissing a boy my own height and florid complexion had no effect. Long distance running, aimless biking, predictable inebriation- everywhere I went and every way I altered my mind, my thoughts dwelled on how happy I had been, how foolish I had been, how much I missed him, how much I hated him (in the frustrated hatred of a tormented younger sibling, hopelessly subordinate and admiring of the tormentor) for no longer wanting me, for having been cured of any desire to know me at all, while his life story and his whole person stomped around my mind, a sass-mouthed Brooklyn Banquo rattling his chains. I was a mess ashamed of her pitiable position, contorting her sorrowful face in her best imitation of a stiff upper lip,*

*trying to embody the rigidity and repression white people are renowned for.*

### *13) Debauchery.*

*This station of the author's perfectly college-sized and -themed self-important Stations of the Cross (in a strictly mournful Tori Amos appropriation of Christian masochism) could alternately be titled "An Unsuccessful Return to Business As Usual". If one were not a fan of young people passing like ships in the night, with no thought to labels, statuses, emotions or sin, the devastation of being rejected by the first male I had really liked and trusted in over a year would seem to be a wake up call to a conscious slattern too self-aware to linger much longer in the shallows of human behavior.*

*To the slattern attempting to cure her emotional pain with the hair of the dog that bit her, this push toward decency did not come welcomingly. She would almost find it funny, picturing herself as she cried silently in the dark under his (he the mannequin, the stand-in in the mutually exploitative and suddenly depressing custom of casual sex) motions, because she knew her face was twisted in agony like a Polynesian mask meant to scare the spirits. The jut of a stranger's hipbone, the soft slap of another's beer belly, made her so sad she escaped into the third person, and empathized for her spread eagled heroine, achieving a comfortable distance from which to watch herself ruffle this now spent stranger's hair, feeling only pity for the two fools entwined like lovers.*

*Eventually the sex came to depress her more than abstinence had, and so she returned to the self-reliant and endlessly imaginative auto-eroticism of adolescence, and fared much better, provided that she*

kept Banquo out of her fantasies.

#### 14) Sightings.

*He took a class here twice a week, and during the time we used to make hurried love or throw stuff at each other, I would now dress carefully and position myself somewhere I might run into him. I saw only the back of him in the rain, and my first interaction with him was during a heat wave. My heart went north, as hearts usually do when your pants want something your brain has warned against, and in the moment I saw him squinting and saying my name, I saw myself as pale, proud, walking wounded as I was. I had forgotten how beautiful he was, but the distance he imposed with his eyes stilled me, and I refused his serious demeanor and whatever pity or guilt might dictated it. I smacked his arm lightly in response to what he told me, like you do with someone you aren't afraid of being burnt by, laughed like you do with someone you're just being normal with, over all behaved inappropriately for the decorum he had called for with his humorless greeting and delivery of message, eyes imparting silent inquiries of my well-being and the impact of his capricious treatment of my hopes.*

*However much it hurt me too, however socially perverse I seemed and how easy I made it for him in refusing to admit he had hurt me, I just couldn't let myself talk with him naturally. He had hurt me so much that I approached him with the insulation of denying him admission to the specter of a ruined woman, with guises of well-intentioned inquiry and detached, cheerful acquaintance- roles both of us knew to be impossible- to hide the love-ridden and rejection-reeling woman within. Seeing him reactivated pains I*

*thought had passed, a hopeless knowledge that I would never be his lover again coupled with the instant access of memory to his eyes when they softened for me, to his breastplate and nests of armpit hair, to all the images that wouldn't leave when I told them to.*

### *15) The Talk.*

*In yet another instance of unexpected blooms, I was laying in the sun reading when I hear him say my name like a question, a dark figure backlit by the sun. My now familiar social role as relentlessly informal and friendly stranger yielded-like always with this boy- a windfall. I wonder if he would have explained himself to me if I had been myself, if I had allowed myself to cry and express anger as a hurt woman, rather than as her replacement, since the Eileen he had loved and left had been promptly destroyed at his rejection.*

*Giving in to my pleasant inquiries to his weekend (he had earlier told me he was going away for the weekend), he talked about getting sun burnt and doing badly at a sporting event. He laid down nearby and I allowed myself to admire him, beautiful as ever, but keeping this feeling from expressing itself in my eyes (or so I hoped). He talked about family; I tried to do the noncommittal prompting therapists and news anchors had perfected.*

*From family he turned to relationships, actually saying he looked for things in girlfriends that he wanted from his family. As thoughtful listener Eileen, I was impressed with this reflective gem, but as vestiges and stronger elements of longing and hurt stirred in his presence, my non put-on self wanted to know what this had to do with me, if he could rephrase it so as*

*to address me more specifically. Of course, he left to go to class, and I sat back, reeling from his sudden loquacity. This would be the last I hear from him, until a drunken meeting at a party, in which I retreat into sass and he responds in kind, and I inwardly hate him for not detecting the pain, or for assuming I am healed, that he owes no apology.*

*The matter is settled when I called him, sober (I am told this was a blessing considering my feelings on the subject and my tendency to vivid, coarse language) and stammering, told him that I had had a bad time of it after the breakup, and closed with an insane non sequitur about what was his favorite color. It was relevant, to me- someone had told me their favorite color was "green when the sun goes through the leaves", which is my specific favorite color. I was tormented at the idea that I had lost the person with my passion for the undersides of leaves, but when, humoring the crazy older woman on the other end of the phone line, he replied "I'd have to say blue", I felt at once humiliated and relieved, and signed off with some falsely breezy expression of goodwill. I cried after it was over, and drank rum with two girlfriends until we were blurry and brassy as pirates marooned in her room.*

#### *16) It Is Finished.*

*There is no ecstasy like a return to homeostasis, no pleasure like respite. When I picture him from the last time I saw him- still handsome and all that- I want to crow for the stillness of my vital organs, including the liver (seat of all lust) and the heart (which, though surprised to see him again, remained relatively steady, bobbing in its standard position). Who is he? I don't know; he proved this to me*

*when he left and I couldn't understand it. I hurt myself puzzling over what made him want to leave, but the unctuous properties of time have worked once again- I can picture him, see him, replay the relationship over and over (though I don't classify these activities as healthy, and I don't enjoy them as I once did, in the delicious nadir of the aftermath) without inciting a riot of grief inside me. But I don't do those things anymore, and it's no triumph of will.*

*My actions didn't dictate his behavior, and I doubt they did much to change mine. The passage of time lessened the pain of losing him to the point where I can write about it and feel pretty bored. Even the excitement of the numbness has worn off, and finally, if I ever run into him, I can be myself- someone who who's cordial but a little prickly, because he has hurt her in the past, and she sees no reason to act otherwise. The loss of hope of being reunited was the crowning touch to my piecemeal disinvestment in the dead affair, and with it came the effortless boredom and distaste for this dead horse of a topic that I had been affecting, in wishful thinking and dictionary-definition fronting, for a month at least. It is over, it is finally finally over.*

*Sixteen Moments of the Affair (In Other People's Words)*

### *1. First Sight.*

*"I was not afraid of Sire. I was afraid of Sire, but I made myself look into his eyes. They were like dusty cat fur."- Sandra Cisneros, The House on Mango Street.*

*"When a film's heroine innocently coughs, you know that two scenes later, at most, she'll be in an oxygen tent; when a man*

*bumps into a woman at the train station, you know that man will become the woman's lover and/or murderer. In everyday life, where we cough often and are always bumping into people, our daily actions rarely reverberate so lucidly. Once we love or hate someone, we can think back and remember that casual first encounter. But what of all the chance meetings that nothing ever comes of? While our minds move ever forward on the time line, our minds continuously trace backward, seeking shape and meaning as deftly as any arrow seeking its mark." - Lucy Grealy, Autobiography of a Face.*

## *2. Waiting.*

*"The face of a lover is an unknown, precisely because it is invested with so much of oneself. It is a mystery, containing, like all mysteries, the possibility of torment."- James Baldwin, Another Country.*

## *3. Dancing.*

*"O body swayed to music, O brightening glance, how can we know the dancer from the dance?"- W.B. Yeats.*

*"Hot from the hands promiscuously applied  
Round the slight waist, or down the  
glowing side" - Lord Byron, The Waltz.*

## *4. First Kiss.*

*"Your kiss has a fragrance that I have yet to find in the kisses of women, or in the balsam of their bodies." - Padraic Pearse (poet, revolutionary, and Gaelic language activist).*

*"I want to paint the carmine halls of your eardrum with my tongue"- Jeff McDaniel.*

## 5. Courtship.

*"I just kept talking about it in my head, and every time I thought about it, I would laugh, not just smile, even if I was out in the street someplace. I guess people looked at me and thought I was a little crazy." - Claude Brown, Manchild in the Promised Land.*

## 6. Birthday.

*"Come, woo me, woo me; for now I am in holiday humor and like enough to consent." - William Shakespeare, As You Like It (Rosalind).*

## 7. Staying Over.

*"Even now I remember that you made answer very softly, . . . your hand on my hair, the burning memory rounding your near lips; I have seen the priestesses of Rati make love at moon-fall, and then in a carpeted hall with a bright gold lamp, lie down carelessly anywhere to sleep." - Bilhana, 11th century poet, Black Marigolds.*

## 8. Morning After.

*"and when the morning came, we were sick but not ill, poor but not deluded, and we stretched in our bed and rose in the late afternoon like millionaires." - Charles Bukowski, Millionaires.*

## 9. Immersion.

*"The true feeling of sex is that of a deep intimacy, but above all of a deep complicity."  
- James Dickey.*

## 10. How It All Felt.



*"To be in love  
Is to touch things with a lighter hand.  
In yourself you stretch, you are well." -  
Gwendolyn Brooks, To Be In Love.  
"How love the limb-loosener sweeps me  
away"- Sappho.*

*"Although I knew that this tangle,  
consisting by turns of Mama and Jan or  
Matzerath and Mama, this knot which  
sighed, exerted itself, moaned with fatigue,  
and at last fell stickily apart, meant love,  
Oskar was still unwilling to believe that  
love was love; love itself made him cast  
about for some other love, and yet time  
and time again he came back to tangled  
love, which he hated until the day when  
in love he practiced it; then he was obliged  
to defend it in his own eyes as the only  
possible love." - Gunter Grass, The Tin  
Drum.*

### *11. Break Up.*

*"Things work out in the end if you're the  
star, but what if you're not? In Old Yeller,  
when Old Yeller gets rabies, the boy shoots  
him and he's sad. Then he gets a new  
puppy and it's a happy ending for the boy.  
But for Old Yeller, he just looks at the boy  
and the boy shoots him."- Lynda Barry, My  
Perfect Life.*

*"My beloved put his hand by the hole of  
the door, and my bowels were moved for  
him. I rose up to open to my beloved; and  
my hands dropped with myrrh, and my  
fingers with sweet smelling myrrh, upon  
the handles of the lock. I opened to my  
beloved; but my beloved had withdrawn  
himself, and was gone; my soul failed  
when he spake: I sought him, but I could  
not find him; I called him, but he gave me  
no answer. . . I charge ye, O daughters of  
Jerusalem, if ye find my beloved, that ye  
tell him that I am sick of love." - The Song*

of Solomon (King James Bible).

*"We shook hands woodenly, like a couple of strangers, and you turned and disappeared down the street. And I must have said, to the emotions crowding around my chest: Get away from me." - Alice Walker, The Way Forward Is With A Broken Heart.*

## 12. Broken.

*"It literally knocked her down at night, and raised her up in the morning, for when she dragged herself off to bed, having spent another day without his presence, her heart beat like a gloved fist against her ribs . . . Nothing could pull her mind away from the mouth Milkman was not kissing, the feet that were not running toward him, the eye that no longer beheld him, the hands that were not touching him." - Toni Morrison, Song of Solomon.*

*"Nothing left- he stole the heart beating from my chest  
I tried to call the cops- that type of thief they can't arrest  
Pain suppressed will lead to cardiac arrest  
Diamonds, [I] deserved diamonds but he convinced me I was worth less  
When my peoples would protest  
I told them mind they business cuz my shit was complex- more than just the sex  
I was blessed but couldn't feel it like when I was caressed  
I spent nights clutching my breast  
overwhelmed by God's test" - Lauryn Hill, Manifest.*

## 13. Sightings.

*"Oh, she thought, when she saw his face, I had forgotten how beautiful he is."- Song of Solomon.*

*"She glanced, and, paralyzed by deadly pain,  
Her eyes no longer saw anything;  
And her body became transparent salt  
And her quick feet were rooted to the spot."  
-Anna Akhmatova, Lot's Wife.*

#### *14. Substitution.*

*"The standard way of overcoming pain is to learn to endure it-- that is, to become hardened to it defensively. This is based on the old axiom that one pain drives out another, and one could find innumerable instances of this principle in the ethnographic literature, showing how bravery, endurance of pain, the undergoing of initiation tests and the acquisition of a conscious awareness of the self are all linked with a conscious repression of infantile and womanish feelings." - F.J.H. Huxley, The ritual of Voodoo and the symbolism of the body.*

*"After the briskness of loving, loving stops. And you roll over with death stretched out alongside you like a feather boa, or a snake, light as air, and you... you don't even ask for anything or try to say something to him because it's obviously your own damn fault. You haven't been able to- to what? To open your heart. You open your legs but can't, or don't dare anymore, to open your heart."- Susan Minot, Lust.*

*"At times I was so lonely I was amazed I didn't just expire right there on the spot, as if loneliness that strong were a divine thunderbolt that could strike me down at any moment. . . Not surprisingly, I saw sex as my salvation. If only I could get someone to have sex with me, it would mean that I was attractive, that someone could love me. I never doubted my own ability to love, only that love would never*

*be returned." - Lucy Grealy, Autobiography of a Face.*

*15. The Talk.*

*"La verdad, aunque severa, es amiga verdadera"- Puerto Rican dicho. (The truth, though severe, is a true friend)*

*16. Se acabo (It is finished).*

*One day you forget his bitter smell  
and one day you forget your shame.  
You remember how your small cry  
rose like a blackbird from the corn,  
when you picked yourself up from the  
earth*

*how the clouds moved on.  
-Sandra Cisneros, Mariela.*

*And Again, Sixteen Snapshots of A Falling  
Arc (Set to Music)*

*Version 1: As I Heard It*

- 1) Them There Eyes- Billie Holiday.*
- 2) El Scorcho- Weezer.*
- 3) Billie Jean- Michael Jackson.*
- 4) Spottieottiedopalicious- Outkast.*
- 5) Tu Voz- Celia Cruz.*
- 6) Motown Philly- Boyz II Men.*
- 7) Because the Night- Patti Smith.*
- 8) Diary- Alicia Keys.*
- 9) Butterflies- Floetry.*
- 10) Bang Bang- Nancy Sinatra.*
- 11) Another Lonely Day- Ben Harper.*
- 12) Shatter- Liz Phair.*
- 13) When You Were Mine- Cyndi Lauper.*
- 14) Paper Bag- Fiona Apple.*
- 15) Bewitched, Bothered and Bewildered-  
Ella Fitzgerald.*

*Version 2: As It Happened- Music of the  
Events Depicted (Where Applicable).*

- 1) The Bargain Store- Dolly Parton.*

- 2) *The Way I Feel Inside- The Zombies.*
  - 3) *Ms. Fat Booty- Mos Def.*
  - 4) *Hold Me Tight- ESG.*
  - 5) *Excuse Me- Loudon Wainwright III.*
  - 6) *Come On Eileen- Save Ferris.*
  - 7) *Freak'n U- Jodeci. [Evidence of the chasm between the event and the author's perception -a '90s bedroom banger is remembered as a Patti Smith elegy.]*
  - 8) *C.R.E.A.M. (Cash Rules Everything Around Me)- Wu Tang Clan.*
  - 9) *Guava Jelly- Bob Marley.*
  - 10) *Love and Happiness- Al Green. [A song both parties could agree on.]*
  - 11) *T.O.J. (Time Out of Joint)- El P.*
  - 12) *Cuando Tu Me Querias (When You Loved Me)- Celia Cruz.*
  - 13) *Blood Roses- Tori Amos.*
  - 14) *Here Comes My Baby- Cat Stevens.*
  - 15) *Unsubstantiated Rumors Are Good Enough For Me- Against Me!*
  - 16) *I Used To Love Him- Lauryn Hill.*
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### **The differences in the Stories We Tell**

Name: Liz Patere

Date: 2005-05-13 11:58:58

Link to this Comment: [15161](#)

## *Story of Evolution-Spring 2005 For*

*The Story of Evolution, Spring 2005  
Final Web Papers  
On Serendip*

*We began the semester with the story of creation. I figured I would try to make things come full circle. We talked about the differences between story-telling styles.*

*I decided to bring myself back to the beginning and tell the story of creation in two different ways. I thought that doing this rather than simple analysis, would allow me to contrast them to the reader while understanding them better myself. The first half of the story of creation is written in the way I read the Bible. The second is written in the way I feel that science texts often read. Both take the modern observations and theories that are scientific in origin.*

### *Day 1: The Beginning*

*Before the beginning there was nothingness. Then God called for all of space to explode within itself in order to create all that we see around us. This is called the beginning and everything moves out from this place. Matter and anti-matter collided to form pure energy. However, in infinite wisdom, God create more matter than anti-matter, in such amounts that life would form.*

*God told this matter to contract and under its own gravity it heated until it generated a thermonuclear reaction, forming a star. One of these stars became the sun. Its size generated gravity that attracted matter. These particles and gases condensed and planets were created. God saw to it that one of these planets would have conditions on which life could form. God was pleased (4,5).*

### *Day 2: The Early Atmosphere and formation of oceans*

*God knew that the molten earth would form a livable environment for His creations. He watched patiently as a patchwork of plates formed on the surface of the molten core creating rocky layers on which He could place life.*

*Volcanoes exploded on the young planet*

*and created an atmosphere of N<sub>2</sub>, CO<sub>2</sub>, CO, H<sub>2</sub>O. God knew that these gases would form his building blocks to life. God waited for the planet to be ready for life. God knew that he had placed the young planet the perfect distance from the sun in order to support life because water existed in the liquid, gas and solid state. God knew that this liquid state would be beneficial for life. God saw this and was pleased (4, 1, 6).*

### *Day 3: Origin of Life*

*Finally God saw that the planet was ready and began to fuse the inorganic molecules on early earth and generate organic compounds. He watched as the organic molecules reacted with one another to form more complicated forms. He globed them together forming aggregates that were even capable of some functions of life; knowing that this would form the building blocks of His great plan. When the first single celled organisms showed themselves capable of metabolism and reproduction, God decreed that life had begun and was pleased (4, 1, 6).*

### *Day 4: The Atmosphere is formed*

*All organisms affect their environment and are affected by it. What organisms metabolize and release affects their survival and that of other species. If there is high CO<sub>2</sub> production, organisms that use it in respiration will have an advantage and will be more likely to reproduce. Therefore in order to pave a path for Oxygen breathing organisms, which are now some of the most abundant species on the planet, something had to alter the atmosphere of early earth. Under what are believed to be the conditions of early earth, cyanobacteria's metabolism allowed them to generate oxygen. Because there was nothing to consume Oxygen, the atmosphere became*

Oxygen-rich (6).

## *Day 5: The Dominance of Birds and Reptiles*

*DNA offers many different possibly outcomes to an organism based on minor changes. These minor changes occur naturally as a result of radiation and mistakes during replication. When these minor mistakes occur in the gametes (or reproductive genetic material) of the parents, they are passed along to offspring. Often these mistakes are detrimental to the survival of the organism, sometimes directly killing the organism or simply making it less able to survive. However, when they are beneficial the organism is able to breed more often than its counterparts, yielding more offspring and causing its mutation to be passed on to the future generations. A number of these mutation compounded over time generates a new species.*

*Evolution is the process by which slow change occurs over time to the genetic material. Organisms that survive better are more capable of reproduction. Organisms generally require a stable environment in order to survive. Large bodies of water tend to resist temperature change and are capable of resisting change in nutrient concentrations and pH. Water also lends itself to easy locomotion. Because of this, it is likely that life began in the sea. Groups of cells congregated in unspecialized units, which benefited survival. A mutation in the genome of one of the cells caused it to become specialized. Because this specialization was beneficial to both the cell and the group of cells, more specialized cells were produced. This process generated multi-cellular organisms.*

*In the evolution of vertebrates, it is*



*believed that protists created sponges. When a mutation caused both tissue formation and radial symmetry, these sponges created Cnideria and Ctenophora. Eventually bilateral symmetry was evolved and created Bilateri, which then generated protostomes and deuterostomes. Deuterostomes created vertebrates.*

*The conditions of earth 250 million years ago were conducive to the evolution of large reptiles referred to as dinosaurs, as they were the dominant species. At the time, the land on earth was concentrated into a super continent called Pangea. In the earliest time, this permitted dinosaurs to move around the continent completely and dominate the landscape. Early earth contained a large amount of land near the equator, which meant that it was warm. This was important as dinosaurs were cold-blooded creatures. Food was also abundant which allowed dinosaurs in the Jurassic age to grow to enormous sizes.*

*By the Jurassic age, Pangea had begun to split causing warm, mild and moist climates, which meant that plants which required moist environments, like ferns and mosses were able to grow. The first birds may have existed during this period having evolved during the Triassic period. It is believed that they evolved from an archosaurian reptile. They appeared similar to bipedal dinosaurs due to this lineage and the selection pressures of bipedal locomotion; in other words the result of coevolution. The earliest bird fossil was dated to have been from this period. Early mammals also evolved during this time; however, their numbers were likely small based on their presence in the fossil record.*

*Barriers to reproduction and a smaller genetic pool mean that one mutation will*

*have a larger impact on the population. It also means that there may have been unequal representation of traits of the earlier population by simple chance so even if those traits are not selected for; the greater allele frequency will affect the appearance and evolution of the species. After the continents finally split and a greater amount of diversity began to exist between dinosaur species in the final period.*

*One of the best theories explaining the end of the dominance of dinosaurs is that of the meteor. A large crater exists in the Gulf of Mexico and a thin layer of concentrated iridium in the fossil record at the time that dinosaur fossils disappear both prove to be strong evidence. Iridium is rarely found on earth, however, it is commonly found in meteors. This explosion would have blocked out the sun creating an "impact winter". Since plants generate energy from photosynthesis, many plant species were killed. Dinosaurs were large creatures requiring large amount of food. When the plants died, it caused a chain reaction. Smaller animals were more capable of subsisting. The presence of smaller reptiles like crocodiles suggests this. Also dinosaurs required the heat of the sun to maintain stable internal body temperature; with this gone the cold could have killed them (2, 6).*

*Day 6: The Creation of Animals and Man Without major predators, mammals were able to become a dominant species on earth. They had the traits best suited to surviving this type of situation and as such were able to reproduce better than others. They were smaller meaning that they required less food. They were capable of maintaining internal body temperature, which meant that they could survive in cold climates.*

*Chimpanzee-like ancestors led to the evolution of humans. It is supported by the study of differences and similarities in DNA, and it is thought that humans' and chimpanzees' evolutionary branch split around 5-8 million years ago. Since the earliest hominid fossils have been found in Africa, it is believed to be the "cradle of man-kind".*

*It should be noted that much of the fossil record of this evolution is incomplete and at least somewhat contested. It is believed that the link between hominid and chimpanzee is in the australopithecine stage. Since these animals would have represented immigrants to tree savannas, free of many predators, there was little selection pressure. This meant that they retained the long arms, short legs, small brain and sexual dimorphism of their ancestors, which is seen in their fossils. However, they did show a shift to bipedal locomotion, which may have allowed them to better survive in an area not as rich with vegetation as the rain forest, where they would have to move on the ground from tree to tree.*

*Changes in the environment placed selection pressure on the australopithecines. Around 2.5 million years ago, tropical Africa began to become more arid as a result of the ice age in the Northern Hemisphere. Trees in the savanna died as a result and bushes, which require less water, began to dominate the landscape. This made the animals defenseless against predators like wild dogs and hyenas. At this point huge genetic changes began to occur in populations although the scenarios are highly controversial. It is believed some populations survived using wits, throwing stones and sleeping near fires, as the trees that used to provide safety during rest had*

*disappeared. Records show that the first flaked stone tools were invented at this time.*

*At this point brain size quickly grew and doubled in the Homo erectus, as larger brains allowed for more of the creative problem solving that is believed to have allowed for their survival. Shorter arms and longer legs were selected for because the animals because better bipedal locomotion proved important without the safety of trees. This species was incredibly successful and spread around Africa and into Asia. It is known for making simple stone tools and the taming of fire. Its increased brain size placed selection pressure on the offspring to be born premature and defenseless in order that they fit through the narrow birth canal without killing the mother. Evidence of this is that the brain of a human infant almost doubles in size during its first year of life. This also placed selection pressure for females to larger, decreasing sexual dimorphism, in order to carry the infant for extended time periods. Brain size did not change much during their period 1.5 million years of existence.*

*Homo sapiens are believed to have originated in sub-Saharan Africa around 150,000-200,000 years ago. They spread throughout the world and are known for their highly developed culture. They have a larger brain than the homo erectus and has shown little change though out their 100,000 years of dominance. This larger brain must have had a large reproductive advantage because once again the increase in size was rather rapid suggesting large amount of selection pressure (2,6).*

*Day 7: The Human Mind: A Cultural Lens  
The human mind is an amazing creation.  
The part of the brain humans use to think*

*and analyze has no direct connection to the outside world. Information is relayed and processed, but one will never know what is "real" and what is not. The mind builds stories to explain the signals it is relayed. These stories build larger mosaics that allow humans the capacity to analyze the external world. However, the human lens is limited. We can only see what our experiences allow us. By this I mean that humans can only gather so much evidence to analyze at time and some evidence, especially of the past, may be gone. Therefore perhaps the difference in belief is not actually a difference in human desires but rather a different viewing lens.*

*Are these styles of story-telling really that different? Both are born only exist because of the way the human mind views the world. The first style uses intent; events serve a greater purpose but are not predictable except perhaps to the causative agent. Little explanation is given as to the reasons why things happen except to relate it back to something that is beyond human understanding. It is often presented as truth without room for questioning. The second makes an observation and tests that observation with more observations. It is always theoretical and highly revisable. It is simply meant to explain patterns in world in a way that can serve to benefit humans' interaction with their surroundings.*

*Looking at the stories more closely, both have the element of predictability; although science lends it self to constant revision for a more predictable pattern. When humans commit evil acts, God will punish them. When the plates of the earth move in a certain way, it will cause a flood. The movements of the plates can be measured and we can predict where the flood will occur slightly before it happens.*

*However, neither story provides long term knowledge. At a distance science primarily consists of probabilities. In other words, if this happens then it will cause something else.*

*In the end these stories currently serve a similar purpose, to provide safety through their predictability. They provide explanation for events; which gives humans an element of control. Religion provides an all knowing God that will give each human their due in an after-life. Science provides ways that we can "know" and predict when danger is approaching; hopefully allowing people to escape. However, each is a story and neither can ever be proven true.*

*Science is fast becoming the new religion because of this feeling of safety is no longer as strong from religion. Humans feel unsafe without a truth to turn to. They are told that gravity, forces and evolution are all known facts. Even science texts like *What Evolution Is* enforce the idea that science is an ultimate truth (6). When there was even larger religious sentiment and fewer individuals being taught science, perhaps it was viewed differently.*

*This change in belief leads in a change of the lens. Humans will build a story based on their life experience around observations. Many creationists who exist now do not dispute the fossil record; however, their experiences in life make them desire that God be involved in everything. Therefore they take observations and make intelligent design (7). Humans with different experiences want a more detached and revisable theory. There is no evidence to them that God exists. There is evidence that things that may seem planned may only be following a simple natural protocol that*

*has little to do with their actions. Examples of this include the termite game we viewed in class. They would prefer not to include god because there is not sufficient supportive evidence and because their theories are still valid without a creator. Also the presence of a creator is not a revisable element in the religious construction of a story, which makes it non-scientific.*

*Another difference in the story-telling style is the acceptance of chance. The goal of the scientific story is to eliminate as much chance as possible. Science attempts to realize that human perspectives will always impact the story that is generated by the mind. Therefore they want to leave themselves up to the chance that a more useful story will be made. It refuses to leave things up to fate or ideas of a time past. The religious story is more catastrophic in construction and leaving things up to wills that are beyond humans. It has a tendency to be concrete and not subject to argument or revision.*

*While both styles are similar in the fact that they provide safety through predictability they are different in that no element of science is ever true; however, there is likely some pattern that flows through the universe. Science gives humans more control over the earth because there is no causative agent that cannot be understood in the story. However, science is changing and losing objectivity. The story that forms is more akin to religion when this occurs.*

*An interesting point although perhaps unrelated is that this final section was simply another way to tell a story. It takes elements from both like science's capacity for dispute and change coupled with religion's use of a more abstract story that*

*connects evidence. All these stories have been my lens but they are all so different in my eyes. Perhaps if I can tell each story, then they are not as different as I once thought. Perhaps I failed in my mission of contrasting the stories. If I did not, then is it only that we need to change our intent when writing in order to see the world from a different lens? The thing is that I really do not think that I can know the answer to that question yet it is the one that stands out in my mind as I think back on the course.*

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**The Role of Ovid's' Metamorphoses in Middlesex: Gi**

Name: Lauren Zim



## *Story of Evolution-Spring 2005 For*

*The Story of Evolution, Spring 2005*

*Final Web Papers*

*On Serendip*

*Jeffery Eugenides' Middlesex is a story of transformations: worms become pupae; brother and sister become husband and wife; Greeks become Greek Americans; a bootlegger becomes the founder of Islam; and perhaps, most dramatically, a girl becomes an adolescent boy. For his modern American epic, Eugenides is undoubtedly indebted to Ovid's Metamorphoses, a mock epic in its own right. Both Ovid and Eugenides tell a story of transformations, while utilizing a variety of different literary elements to create a work that is in itself a hybrid. Middlesex is simultaneously a multi-generational family saga, and a unique coming of age story, a blend of tragedy, comic, and epic. Eugenides superimposes the modern story of genetics and evolution on Ovid's Classical stories of transformation in order to tell a universal story of self-transformation and rebirth.*

*Middlesex is an epic retelling of the history of a recessive chromosome. Our omniscient narrator Cal/Callie describes the gene's journey through countless epic events: from the slopes of Mt. Olympus, through the fire at Smyrna, to Detroit,*

*through prohibition, race riots, to suburbia in the 1970's, until this gene finally expresses itself in our narrator at adolescence. For his comic epic, Jeffery Eugenides has chosen some very taboo subject matter: a brother and sister romance, and hermaphroditism. These controversial topics might easily provoke disgust, but with Ovid's Metamorphoses for stimulation, Eugenides evokes classical archetypes and a comic style to make the bizarre and disturbing accessible and understandable.*

*In addition to imitating Ovid stylistically and sharing with him the theme of transformation, Eugenides frequently refers to characters from Metamorphoses as metaphors for Callie/Cal, including the minotaur, Tiresias the seer, and the god Hermaphroditus. Each of these mythological creatures shares something in common with our narrator. By referencing these characters in Middlesex Eugenides enriches his novel; classical archetypes add layers to his story. But he also transforms these myths for his own purposes, bringing out psychological reverberations implicit in Ovid to the forefront.*

*There are numerous ways in which Cal is connected to the prophet Tiresias. The most obvious is that both have experienced living in society as both a man and woman. In addition, both characters have dealt with incestuous family trees, and both have a prophetic ability, they are able to divine information that should be inaccessible to them. Cal begins comparing himself to Tiresias early in the novel, and is even cast as Tiresias in an eight-grade production of Antigone. The myth of Tiresias served as a starting point for Eugenides' novel.*

*In Ovid's Metamorphoses, the story of the Tiresias transformation from man to woman and back to man is briefly told: Once he had come upon two serpents mating,  
In the green woods, and struck them from each other,  
And thereupon, from man was turned to woman,  
And was a woman seven years, and saw The serpents once again, and once more struck them  
Apart, remarking, "If there is such magic In giving you blows, that man is turned to woman,  
It may be woman is turned to man. Worth trying"  
And so he was a man again. (Ovid 1. 327-335).*

*This story is framed by an argument between Juno and Jupiter concerning who enjoys sex more, men or women. Jupiter insists that the female takes more pleasure, and Juno the male (the grass is always greener). The couple decides to consult Tiresias, the only person really qualified to settle such a dispute. Tiresias sides with Jupiter, saying that the female enjoys love making more. Juno is outraged to be proven wrong and strikes him blind. As compensation, Jupiter gave Tiresias the power to know the future. Tiresias' seer saying ability is thus derived (albeit indirectly) from his unique experience of living as both man and woman, and the more comprehensive understanding of sexes that the experience gave him.*

*It takes Ovid only nine lines of verse to explain Tiresias' metamorphosis; it takes Eugenides some 500 pages to explain Cal's. This is because Ovid does not explain Tiresias feelings regarding his transformation into a woman or the change back. We do not know how*

*Tiresias' life differed as a woman than as a man, or how his family dealt with the transformation. Ovid also does not specify exactly how the metamorphosis happened, though it is clear that it was not of Tiresias' own volition. Thus, Ovid's myth provided only a starting point for Eugenides. In an interview he comments, "In opposition to the way hermaphrodites have existed in literature previously - as mythical creatures, mainly, like Tiresias - I wanted to write about a real hermaphrodite." Eugenides' quote implies that the mythical Tiresias does not suffice. Eugenides wanted the hermaphrodite in his story to have a real voice, a psychological interior that is not palpable in Ovid's telling. The most significant effect of Eugenides' retelling is that he gives Cal an agency that Tiresias does not have, so that his transformation is in some respects his own decision.*

*Like its epic predecessors, Middlesex deals extensively with the Greek concept of *moira* (moira,) or fate. The characters in Ovid's *Metamorphoses*, for the most part, have transformations inflicted upon them. They have no agency; the gods who make the changes seal their fate. Eugenides depicts genetic determinism as a modern version of the classical concept of fate.*

*Throughout the novel, Cal repeatedly refers to the events that led up to his birth as fate, or destiny. Yet despite this emphasis on predetermination, the novel's stronger message is faith in free will. A definitive quote:*

*In the twentieth century, genetics brought the Ancient Greek notion of fate into our very cells. This new century we've just begun has found something different. Contrary to all expectations, the code underlying our belief is woefully inadequate. Instead of the expected 200,000 genes, we have only 30,000. Not many*

*more than a mouse. And so a strange possibility is arising. Compromised, indefinite, sketchy, but not entirely obliterated: free will is making a comeback. Biology gives you a brain. Life turns it into a mind (478-479).*

*In the world Eugenides created, it is an array of factors that make us who we are: our genes do play a role, but so does our cultural heritage, and our unique experiences as human beings. Middlesex suggests that Cal really is not that different from the rest of us. In a sense we are all hybrids, composed of diverse elements, but still endowed with the freedom to determine our own metamorphoses. Even in an era of genetics, there is still an opportunity for free will.*

*It is important to note, that though Cal did not choose to be born the way he was, the decision to live as a man was ultimately his own. Despite his winnings in the genetic crapshoot, he is still able to take destiny into his own hands. Furthermore, Callie made the decision to become Cal at the age of fourteen, the same age when most teenagers are beginning to decide who they are and to embrace their independence. During his interview, Eugenides explains, "I used a hermaphrodite not to tell the story of a freak or someone unlike the rest of us, but as a correlative for the sexual confusion and confusion of identity that everyone goes through in adolescence." Cal's metamorphoses is universal in the sense that it parallels that frightening and bewildering transformation and the eventual acceptance of independence that every teenager experiences.*

*The novel gives us countless examples that we are able to design our own destinies. Desdemona and Lefty's relationship is a*

*perfect example. They reinvented their identities, so that they were transformed from brother and sister to husband and wife. Cal relates that many transformations took place on his grandparent's voyage from Greece to America:*

*Sailing across the ocean among half a thousand perfect strangers conveyed an anonymity in which my grandparents could recreate themselves. The driving spirit on the Giulia was self-transformation. Staring out to sea, tobacco farmers imagined themselves as race car drivers, silk dyers as Wall street tycoons, millinery girls as fan dancers in the Ziegfield Follies. Gray ocean stretched in all directions. Europe and Asia Minor were dead behind them. Ahead lay America and new horizons (68).*

*Eugenides here takes the classical theme of metamorphoses, as told in Ovid, and applies it to the story of American immigration. By explaining Lefty and Desdemona's decision to reinvent themselves in relation to every immigrant's aspirations of reinvention, Eugenides takes a taboo and disturbing subject, incest, and normalizes it, just as he does with the subject of hermaphroditism.*

*Ultimately, Cal accepts his fate as a hermaphrodite; there is no evidence in the text that he begrudges his grandparents for their union. This is well illustrated in a scene towards the end of the novel, when Desdemona expresses how guilty she feels for Cal's transformation.*

*"I'm sorry, honey. I'm sorry this happen to you."*

*"It's all right"*

*"I'm sorry, honey mou."*

*"I like my life," I told her. "I'm going to have a good life."*

*"Don't worry, yia, yia. I won't tell anyone."  
"Who's to tell? Everybody's dead now."  
"You're not. I'll wait until you're gone."  
"Okay. When I die, you can tell  
everything."  
"I will."  
"Bravo, honey mou. Bravo" (528).*

*This harmonizes beautifully with Eugenides' overarching theme of the universality of self-transformation: that despite a world governed by genetic determinism, there is still some room for free will. Like any adolescent, Cal has the ability to transform himself, to decide the person he will become. Ironically, Eugenides novel suggests implicitly that Cal actually has more control over his destiny than most human beings. Unlike most people, who have no reason to question their position on the gender spectrum, Cal is given the opportunity to choose his gender. In this respect, Cal's hermaphroditism actually gives him freewill, rather than takes it away. Eugenides begins with the story Tiresias: a mythical version of a hermaphrodite, who does not seem to have any control over his destiny, and he ends with Cal having willfully chosen to live life as a man, and decided to have a good life.*

*Tiresias is not only relevant to Cal's story because of his experience living as both genders, but also because of his role as a seer. Cal also suggests that his experience living as both genders has given him supernatural abilities. Cal describes what he calls a unique "clairvoyance" for understanding both sexes: "Already latent inside me...was the ability to communicate between the genders, to see not with the monovision of one sex but in the stereoscope of both (269)." Like his mythical predecessor Tiresias, Cal has a somewhat disembodied quality. He*

*explains his talent for embodying both genders in the scene in which Callie claims to inhabit the body of Rex Reese, boyfriend of the Obscure Object. Again evoking Classical antecedent, she compares herself to the Delphic Oracle: "I drifted over the plank floor. I floated above the little camp stove. Passing by the bourbon bottles, I hovered over the other cot, looking down at the Object. And then suddenly, because I knew I could, I slipped into the body of Rex Reese. I entered him like a god so that it was me, and not Rex, who kissed her." Like Tiresias, the experience of existing as both genders has endowed Cal with a unique ability to understand his world.*

*Cal's abilities as a seer are also reflected in his unique narrative voice. Once again transforming literary style, Eugenides has created a first person omniscient narrator. The effects of this distinctive voice are far-reaching. First of all, the first person narration allows the reader to know Cal intimately, thus giving "Tiresias" the interior layer that was not explicit in Ovid. Eugenides comments, "in many ways, the point of the book is that we're all an I before we're a he or a she, so I needed that I." Again, Eugenides' story emphasizes the similarities among humans, not the differences.*

*The first person narrative makes Cal a person with whom readers can truly bond and identify, regardless of his mixed gender.*

*The omniscient facet of Cal's narrative voice enables him to talk about events he was not present for, specifically, the romances of his parents and grandparents. Eugenides thus gives us a more complete understanding of the events that led to his transformation than we would be given if the story were told through a regular non-*



omniscient first person narrator. Again, the unique narration provides reader with a more comprehensive understanding of a controversial subject. Cal does admit that he occasionally embellishes his story.

Eugenides remarks in interview, "he might make claims that he has a genetic memory or that he knows things, but there are a lot of tip-offs to the reader that he's making it up." The ability to create fiction does not diminish Cal's free will, but on the contrary endows him with even more agency: the chance to tell his story as he sees fit. Tiresias does not get to tell us his side of the story.

Furthermore, the omniscient narration enables Eugenides to mimic the epic motif. Classical epics conventionally begin "in medias res" in the middle of things. The *Odyssey*, for example, begins not with Odysseus' departure from Troy, but while he is imprisoned on Calypso's island; the other events of the poem are retold through the voices of various characters. Cal's omniscient narration gives him the ability to tell his story beginning "in medias res" too. He begins narrating while his character is in the womb and his grandmother attempts to predict his gender with a spoon. Then he backtracks to describe his grandparents' lives in Greece. In addition, the entire narration is framed by Cal's current efforts to woo a woman named Julie. As the story within the story unravels (and unravel is the appropriate verb to use, given Cal's family's history in the silkworm industry) the narrative eventually comes to the birth of the narrator. As Cal grows from childhood, to adolescence, to adulthood, the narration becomes more intimate, more psychological, as Cal is the character that the narrator knows best. Eugenides remarks that *Middlesex* "begins with epic events, old fashioned, almost Homeric

*ideas - and as it progresses it should gradually become a more deeply psychological, more modern novel." The style of novel evolves with Cal through his narration, from an epic narrative, to a very personal story. Eugenides has taken the myth of Tiresias as a starting point, and given him an inner life; he has started with an epic, and given us a very personal memoir.*

*Cal's experiences living as both a man and a woman also give him a unique ability as a writer. The writer must also have an androgynous mind. Writing requires the imagination, endowed by our neo-cortex, to envision the experiences contrary to our own, including the experiences of the opposite gender. Cal has this ability, as demonstrated by his Delphic ability in inhabit Rex Reese, "to see not with the monovision of one sex but in the stereoscope of both (269)." Though Cal's aspirations as a writer are only mentioned briefly, it is clear that the desire to write is an important part of Cal's life. "I, even now, persist in believing that these black marks on white paper bear the greatest significance, that if I keep writing I might be able to catch the rainbow of consciousness in a jar" (297). Cal's struggles are not just with his sexual identity. Like every human being, Cal wants to tell a story, to produce something meaningful. This is also evident in the passage quoted above, in which Cal says that after Desdemona's death, he is going to share his story. Since he is a hermaphrodite, Cal is not able to have children; his meaningful contribution to his world must come through other means. Cal's life as a writer is also another way in which Cal is able to take control over his destiny, by recording his story and sharing it with others. Eugenides gives him that power through the first person*

*omniscient narrator, in that Cal is able to tell his story in its entirety, while still maintaining a personal rapport with his audience.*

*Paradoxically, Eugenides uses classical allusions to tell a story that is not mystical or fantastical. Instead, Eugenides uses the myths of Ovid's Metamorphoses in order to normalize social taboos, to universalize what initially seems disturbing, namely incest, and hermaphroditism. Eugenides began with the mythical Tiresias as his starting point. He incorporated Tiresias' experiences as members of both genders, as well as his gifts as a soothsayer, into Cal's story. But Middlesex is not just a retelling of the Tiresias myth, but an evolution. Eugenides gives Cal something that Tiresias does not have: his own voice. Unlike Tiresias, Cal's metamorphosis was initiated by his own agency. Furthermore, Cal has the ability to express his personal feelings regarding his transformation. Ultimately, Eugenides' suggests that Cal is not a freak, but like every human being, a product of genetic and cultural history, a combination of fate and free will, who wants one thing: to share his story.*

*Ovid, Metamorphoses. (Rolfe Humphries Trans.) Indianapolis: Indiana University Press, 1955. 118-125.*

*Jeffery Eugenides Has it Both Ways, an interview with Dave Weich.*  
<http://www.powells.com/authors/eugenides.html>

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### **"The Talk"**

Name: Tonda Shim

Date: 2005-05-13 13:24:50

Link to this Comment: [15173](#)

# Story of Evolution-Spring 2005 For

## *The Story of Evolution, Spring 2005 Final Web Papers On Serendip*

*Mr. Wilson's fifth grade class squirmed anxiously as they waited for the lecture to begin. It was the day of the dreaded "sex talk" – the day where the class is divided into boys and girls, and they each, separately, watch videos about what is about to happen to their bodies, and the bodies of their opposite-sex-peers. There was that slightly nervous, very embarrassed silence which overcame them all, as thirty-two ten-year-olds stared at their worn out Nikes, Adidas, and Mary Janes under their desks, waiting for Mr. Wilson to come back from the library with the videos. Every once in a while a paper airplane would zoom past Lizzy Nelson's ear, because in the back of the classroom Pat and Danny couldn't stand the tension.*

*"Alright class," Mr. Wilson's booming baritone voice entered the classroom before he did. "We're going to do things a little differently this year – maybe even a little differently than the other fifth grade classes. You're all going to stay right here for the presentation. Together."*

*Shocked faces glanced uncertainly around the classroom, looking for some explanation on their confused classmates' faces. Ever since the Livingston schools started giving "the talk" to its' fifth graders, they had always been separated. Adults felt that this would make the students feel more comfortable with the subject and with their rapidly changing bodies. But Mr. Wilson felt that sometimes adults go about things in a way that makes them*

*more uncomfortable than they need to be, and the subject of sex and sexuality was one of those things.*

*"The school secretary, Ms. Billinger, has agreed to help me with the presentation. If any of you feel uncomfortable asking a question in class today, you may feel free to approach either of us at any time afterwards." Ms. Billinger, with her red curly hair pinned up in the back and her wrinkle-free blue skirt-suit was using one of her deathly thin white hands to pull down the projection screen at the head of the class, and another to pick the video they'd be watching out of her dark pink bag on the floor.*

*The students couldn't help but feel a bit unsure about the whole process. They'd been brought up the same way all that had come before them had: they were self-conscious and embarrassed about their bodies and the idea of the other gender. They had been raised to know that there were two genders – male, and female, and that they were very different not only physically, but emotionally and intellectually as well, and should be treated as such. Men were more logical. They were stronger, and excelled more in the realms of math and science. Women, on the other hand, were more emotional. They were more in tune with their own emotions as well as those of others, making them more empathetic, which aided the child-raising process, and they had better vocabularies and paid very close attention to detail. Nobody had ever told them these things explicitly, but it was more intuitive – the way the characters acted in their television shows, or in their video games all resulted in more or less the same inferences. Keeping the sexes together for an explanation of their bodily changes and a discussion about sex seemed to these*

*thirty-two fifth graders not only shocking, but somehow morally inappropriate and most definitely unheard of.*

*"What is he thinking?" Mal whispered to Meghann, who was in the desk next to her. The classroom was set up in four rows facing the front, with two columns of four desks next to each other. Mr. Wilson was positioning the projector between the two columns in the center of the room. "I don't want to be in the same room with the boys for this – it's disgusting!"*

*"I don't think that my mom would like this very much..." Meghann replied uneasily. Meghann's mom was very involved in the PTA, and Meghann knew well that if her mom didn't like something, it meant big trouble for the person who planned it. As much as the class loved Mr. Wilson, with his comforting smile always hiding under his graying black mustache and his constant jokes (not to mention the fact that he often allowed games in the classroom as learning experiences), the entire class was skeptical of this latest decision of his. Not to mention that they were all suddenly feeling very self-conscious of their bodies and even the way they looked around the class at members of the other sex.*

*"Oh, and just to warn you," Mr. Wilson added as he turned off the lights and flipped on the video, "This isn't exactly the video you were expecting."*

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*The movie began as most documentaries do. The voice of a British female with a lower and very serious voice was walking through a field of grass, asking questions to the audience about what makes an individual a male, and what makes one a female. But as she sat down on a*

*conveniently oversized and flat-topped rock, she poses a final, startling and incredibly dumbfounding hypothesis to these fifth-graders: "Perhaps we are not male and female at all," she says very slowly, "Not simply man or woman; one or the other, but perchance gender is more like a spectrum – different degrees of masculinity and femininity, not fully one nor the other."*

*Sitting flabbergasted at their desks, the students' minds started whirring out of control. Some refused to believe that last sentence. Some sat like computers with too many applications running, slightly overheated and with thoughts going everywhere at once; it was too much to handle. This was exactly the reaction the parents had been worried about when Mr. Wilson proposed his idea, yet in the back of the class Mr. Wilson smiled quietly to himself. He, unlike a good deal of educators, had faith in the child's capacity to understand even the more complicated of ideas in simpler terms, and knew that once the video had completed its run time, they would be much different people than they had been before. He silently folded his hands in his lap, anxiously awaiting the discussion at the end, when his pedagogical and ideological hypotheses would be proven right or wrong by his currently stunned students.*

*As the screen went black and the picture of the woman faded into the background, a quote in white lettering appeared on the screen, narrated by the voice of a British male: "I was born twice: first as a baby girl ... in January of 1960; and then again, as a teenage boy ... in August of 1974.*

*Specialized readers may have come across me in Dr. Peter Luce's study "Gender Identity in 5-Alpha-Reductase Pseudohermaphrodites," published in the*

*Journal of Pediatric Endocrinology in 1975" (Eugenides, 3). As the mind-boggling quote disappeared from the screen, a balding Doctor who had been researching the genetic sources of the socially constructed ideas of sex and gender, appeared and began explaining his findings.*

*"Sex is not merely a product of chromosome combinations," he stated with a firm yet understanding tone. "It is the result of thousands of chemical reactions which take place in an individual's body long before they're even born. These processes, among other things, signal the secretion of certain amounts of different hormones within the body, which in turn signal the development of internal and external genitals for all sexes, and a plethora of other processes. The chances of every single one of these reactions occurring properly are extremely low, though this does not necessarily mean that dramatic external differences in sex will occur. And it is because of this – because the incredible number of procedures required to make a 'true male' or a 'true female' makes the actual existence of such genders rare, we in the department are making the argument that there are not two genders, but many."*

*The woman with the British accent made her best attempt to put this in simpler terms. Over the next few minutes, the screen showed a number of bright and colorful diagrams, explaining the necessity and the purposes of the different hormones. The charts documenting typical and atypical hormone levels at certain times appeared with explanation and disappeared again, and several graphic examples of proper and improper genital development were displayed visually for the students to take in. Images*



*of chemical processes and the intricate development of the human body lay imprinted in the minds of these ten-year-olds, forcing their minds again into a whir, trying to make sense of this wealth of information that had been hitting them with the intensity of a brick wall. And there were descriptions of different more drastic results of the different chemical reactions and chromosome combinations, such as Turners/Klinefelter syndrome, 5-alpha-reductase-deficiency, true hermaphrodites, and mixed gonadal dysgenesis which floored most of the students.*

*It is often the case that when fifth-graders watch a movie in class – especially one taking the form of a documentary – they will tend to drone out and become preoccupied with other aspects of the classroom, or trinkets hiding in their desks. These fifth-graders – all thirty-two of them (even Pat and Danny, who were usually 'too cool' to have anything to do with class work) – sat mesmerized by the images and ideas being put before them. Though the darkness of the room and the calming lull of the narrator's voice will often close even the eyes of those with the best of intentions, thirty four pairs of eyes (including Mr. Wilson's and Ms. Billinger's) stared intently at the projection screen, thirty-four bodies at the edge of their seats.*

*"All that being said," the British woman continued, "some construct of gender is still critical to reproduction, and thereby the evolution and prolonging of the human race. Reproduction requires the connection of sperm and egg – the sperm is produced by the individual possessing both internal and external male genitals, and the egg is produced by the individual possessing both internal and external*

female genitals." She went on to diagram how the egg and sperm are produced within the body, and of course (the part where all fifth-graders feel that their shoes have become an incredible point of interest) the process of getting the egg and sperm together to form a new being. Diagrams of both limp and erect penises with a cross-section allowing one to see the travel route of the sperm, as well as those of ovaries and the vagina had their own two seconds of fame on the screen, which naturally transitioned into: "Young people like yourselves are probably starting to experience the wonders of puberty, with all its mood-swings, hormone fluctuations, and very noticeable bodily changes. These all are going to put you, as an individual, into a place where you yourself can reproduce when you get a little older."

This part of the video we all know, and additional explanation is really no longer necessary. The traditional poorly put together videos of children washing the sheets frequently because of wet-dreams, or telling a mother about a first period were of course included, allowing the ten-year olds who'd already had such experiences were comforted in knowing that they are not alone. Those who hadn't now knew what to expect. And everyone in-between could at least get a good laugh out of the cheesiness of the lines in the mini-skits.

After an hour of sitting in the dark, the British woman finally returns on her walk through the long grass to her rock, and from her exploration of sex and gender to the real world. "Even with the requirement of both egg and sperm for reproduction, the binary categorization of gender is both untrue and unnecessary. There is a whole spectrum of gender out there, and it is nothing more than the genetic luck of the

*draw (with sometimes a little help from inheritance) which makes your body what it is today. And now it is up to you to decide what you want to do with that initial structure, and what you want to make of it."*

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*The lights came back on as Mr. Wilson came back to the front of the classroom, and Ms. Billinger stopped and rewound the tape. Thirty-two faces stared blank and speechless, blinking the brightness out of their eyes and trying to come back to reality themselves. Mr. Wilson thanked Ms. Billinger for her help, and she and her pink bag returned promptly to the school's main office.*

*"Well," started Mr. Wilson, somewhat breathlessly. The now aging, somewhat overweight elementary school teacher pushed his little oval glasses back up on his nose so that he could see the class properly. "I know that was a lot of information to take in, and I know it's probably very different from what you've understood up until now, so take it easy. Slow down a little, and use the pieces of paper Ms. Billinger is passing around to sort of free-write your ideas about the video. I'll give you about ten minutes to get your thoughts together, and then we'll try to re-convene and have a discussion about it." He paused, looking around at the stunned looks on his students' faces. "I want us all to feel comfortable talking here, and I want to be as much a student and a teacher as each of you are students and teachers, so that we share our experiences and our knowledge to form a better understanding. Go ahead and start writing – I'm going to write as well, and we'll see what we come up with in ten minutes."*

*Mr. Wilson returned to his desk at the front of the room, his dark hand scribbling away on the paper with a spare Number 2 pencil. The class as a whole varied greatly as to how much and what they wrote on their page. Some had already formed comprehensive questions in their minds. For some it was a little more difficult to translate the complicated thoughts and emotions that the video had provoked within them to the page. Needless to say, however, there was a lot of evolutionary thinking occurring in Mr. Wilson's fifth-grade classroom.*

*At the end of the ten minutes, Mr. Wilson stood up from his desk. He wandered in front of the group of students whose expressions ranged from intent concentration, to chewing on erasers, to still blank stares at the chalkboard. Together they were able to discuss a wide variety of subjects concerning gender. Mr. Wilson had set aside the entire afternoon until second recess for discussion, and free time if they finished (by his standards) early – he thought they deserved a little break.*

*"Hey, if there are more than two genders, why do we only have two categories – male and female – and what are you supposed to call everyone in between – it?" Danny shot up from the back of the classroom, to Mr. Wilson's delight. This opened up an opportunity for the class to discuss the unfortunate limits of language, and the general differences between Eastern and Western languages and ways of thinking. In the East, people think in terms of the big picture. Many of the Eastern languages either don't have gender pronouns, or their pronouns are all unisex, whereas not only do Western languages have gendered pronouns, but some romance languages apply gender to*

*inanimate objects as well. The West is a great deal more concerned with categorization than the East, who think of things in a highly complex, relation-oriented fashion (Nisbett, xvi). Mr. Wilson asked the students whose families had come from the East, and still spoke the language at home to comment on their native languages, and whether or not they'd noticed it before.*

*"My family's from China," Suzy perked up, unsure but excitedly. "When my older sister and I first came to school, we could never remember the pronouns like "he/she/him/her." People laughed because I'd call Mr. Jensen "she" and Ms. Billinger "he." It took me a long time to get used to it, and I still mess up sometimes, but I never really thought about why. English should have a pronoun that can be used for anybody, too – it's easier."*

*The discussion was able to continue like this for a good part of the afternoon until finally the ten-year-olds tired of the discussion and became distracted by the increasingly nice weather outside the classroom window. Mr. Wilson was content that they had been able to fit in questions about pads and tampons, wet dreams, unwanted erections, and delayed breast development alongside a discussion about taking gender out of the binary and into a spectrum. As he watched his students put on their spring jackets and prepare for outdoor excitement, he smiled to himself, knowing that he had done his best to better prepare at least thirty-two young minds for the real world.*

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*Though it is written in story form, and the original intent was to make it for children about the age of those included in the story, I now think that the message should*

*be for educators of all ages and levels of learning, as a message to what needs to happen in the way of sexual education in the schools. I added a lot of my own ideologies, not only on the subject of gender but on classroom pedagogy and ideology as well. This subject will probably end up sidelined by the majority of American society – I doubt that parents will even make as big a deal out of gender as the Scopes Monkey Trial made of Darwinism and evolution, because of the unlikelihood of it even getting into the schools in the near future, but I feel it's important and in my own personal ideal world, this would be a big deal. The Western categorization (and sometimes over-categorization) of gender has had unending and far-reaching effects on the way we think about people and the way we treat people in general. Perhaps seeing gender in this new light will take a step towards awareness; towards ending at least some sorts of discrimination, and towards a broader and fuller understanding of ourselves and the world around us.*

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## **Excavation Report for Leira, Devon County, England**

Name: Ariel Sing

Date: 2005-05-13 14:12:16

Link to this Comment: [15174](#)

### *Story of Evolution-Spring 2005 For*

*The Story of Evolution, Spring 2005  
Final Web Papers  
On Serendip*

*A recent discovery has been made in southern England. Excavation has been done on the ruined remains of a villa that is believed to have dated to the early first century AD. This villa is attributed to Lucanus Quinterius, an envoy and tribune of the praetorian cohort under the rule of Augustus. Although there is evidence that the villa was occupied after the death of Lucanus, there are no records as to who may have been master of the house, nor what the position of this person may have been. The excavation revealed little beyond the dimensions of the house and one very extraordinary set of three earthenware jars containing a few rolls of papyrus. The only other artifacts from this time found in the vicinity included a grouping of broken potsherds and a large quantities of grain husks. A few metalwork vessels were found directly outside of the remains, yet these clearly date to a much later date than the ruins, perhaps even as late as the early Renaissance period.*

*The layout of the ruins is a standard pattern for the time and area in which the*

*building is believed to have been built and used. The earthenware pots, however, are exceptionally rare, and their contents may very well change views of Roman literature from this period.*

*The jars themselves range in size. The largest (FRW 325) is 24.6 cm in diameter at its widest, 10.3 cm at its neck (the narrowest area) and 32.1 cm tall; the overall shape consists of a spherical base, with a neck that is narrow at its base and widens near its mouth. The two remaining vessels (FRW 326 and 327) are almost exactly the same size, and clearly the same style. The size of each is 12.7 cm in diameter and 36.2 cm tall; the shape is cylindrical, with no variance in diameter. Both have two handles that begin 2 cm from the top and continue downward for 7 cm. The shape of the handles is a shallow s-curve, with a bit of a flare at the bottom. All three jars were very plainly decorated, made of clay, dark beige in color. that is commonly found in southern England. The decoration found on FRW 325 was a set of four parallel lines around the neck, below the final line was a ring of tiny dots, also parallel to the lines. Both the lines and the dots were painted in a dark brown paint, although the exact composition is unknown at this point. The two smaller vessels, FRW 326 and 327, had nearly-identical decorative designs and were ornamented in a pattern not usually found. There was a spiral that appears to be a double helix in shape which was painted on to the vessels, running both around the circumference of each jar and the entire length of each. This was painted in a dark green paint, very commonly used in this area at this time. All vessels were also sealed with crude but strong clay lids. All three jars were found together, buried far below the probable lowest level of occupation in this villa, this*



would seem to indicate that they had been buried, but no conclusions can yet be drawn.

Contained within the largest jar were two papyrus scrolls, still in very good condition. Sadly, but unavoidably, upon their transferal to the British Museum lab, and subsequent unrolling some of the papyrus bulk was lost to crumbling, thankfully, no text was lost. The two scrolls found in this vessel had inscribed upon them a single copy of the story of Hermaphroditus, which appears to be from the work of Ovid; it matches almost exactly to another early copy of this document. The story was split onto the two papyri, although it looks as if at one point they would have been bound together and aging has simply crumbled the bottom of the first roll. The remaining two jars also held copies of what can hopefully be concluded to be some of the earliest examples of the *Metamorphoses* we have. In jar 326 there were two stories, that of Tereus, Procne, and Philomela, and the tale of Tiresias. Yet it is jar 327 that has the most potential value, the first scroll was found to contain the story of Apollo and Daphne and the second is engraved with a story that can perhaps be termed *Philara and Sarianis*. This last story is one never having been found before, yet given the beginning and end can be easily fit in between the stories of Pyramus and Thisbe and the tale of Venus and Mars in book two of the *Metamorphoses*. At first glance all these manuscripts appear to be authentic, although more tests will succeed this report. Here follows the newly discovered tale of metamorphosis:

*Philara and Sarianis*

Another tale of star-crossed lovers is perhaps less known to all:

*Philara, daughter of king Perecleus, was  
yet a maiden,  
When she happened upon a young lass  
resting  
By her favorite wading pool, "Beautiful  
girl, pray  
Tell, what is your name?" begged Philara.  
The young maid leapt to her feet to ask  
pardon,  
Replying that she was called Sarianis,  
daughter of  
King Tiranius of Crete, that much-august  
land. Philara,  
Oft alone with no bevy of companions,  
entreated Sarianis not flee  
But to stay and join her in her  
entertainment, for she was wearied,  
Always enjoying her favored lyre player in  
solitude.  
So Sarianis willingly accompanied the  
gladdened girl,  
For she herself was much forgotten by her  
family,  
Indeed her elder sister was preferred and  
her mother,  
A beautiful and conniving woman, was at  
present moment  
Planning the marriage of the beloved  
daughter, indeed,  
To no less a grandly prince than the bother  
of Philara.  
Sarianis resided many a day with Philara,  
playing and  
Relating their most loved stories, each to  
the other,  
They would often wander out to the lazy-  
flowing river,  
Or to that same fateful previous pool, all  
as still as a mirror.*

*Finally the day arrived, much heralded by  
both families,  
And after the union between the brother  
and sister of each,  
The families were to part, Sarianis  
returning to Crete,*

*Born away from her dear friend her nigh-winged ship.*

*Both girls mourned their farewell, each weeping for the other,*

*"Why should the gods split so dear a pair?"*

*Their cries rent the air. For they would grieve the lost*

*Company more than e'er was such a loss before lamented,*

*For a fateful situation: In which hearts love had previous*

*Never gained admittance, now it had a strong and*

*Much cherished nest, as a gull might build, protected,*

*At the tope of some hitherto-unreached cliff, safe and unseen.*

*How should two such friends be ripped from devoted breasts?*

*The girls vowed that this should never be, yet what was the choice,*

*For these two never should be married, both knew the customs,*

*Their love was forbidden and as such they little wished to live,*

*Yet neither wished to die, for even then there was no assurance*

*The one would find the other when separated by demise.*

*No escape seemed possible for these two unlikely lovers,*

*They had no place hence to tread, no secure haven onto which*

*They might tie their steering ropes. Thus they were ripped apart.*

*Philara saw only one solution, unknown by her sweetheart,*

*She appealed to a goddess, the most fair and guiling Aphrodite,*

*That lady who beholds all devotions as her game and her domain.*

*At the knees of this radiant one the bereft maiden laid her plea:*

*Her one true desire, her only reason for this life, was to be joined,*

*Forever and for always to her one true  
love, her Sarianis.  
In her despair and her desperation she  
begged  
For the only solution she could possibly  
foresee: to be changed,  
To take on the appearance, nay even the  
body, of a man,  
That powerful and all-dominating breed  
of human.  
Little thinking past her immediate plight,  
she threw herself,  
Unheeding into the path of greater  
destruction.*

*Aphrodite, always an accomplice in  
otherwise-doomed affairs,  
Consented, she would grant the hasty and  
ill-planned prayer,  
As a mistress of love she could do no less;  
oh, goddess,  
Why did you not turn a deaf ear to this  
frantic plot,  
Why could you not see the tragedy that  
would result!  
Yet Aphrodite, blessed and beautiful lover  
of passion,  
Gave a new shape to the beauty of Philara,  
Now the fair lass was a fair lad, a bright  
son.  
With the transformation complete there  
was no cause  
For separation of the beloved ones, no  
reason for mourning.  
Thus girded the lad, no longer Philara,  
now Philarus,  
Set sail. Swiftly he reached the land of  
Sarianis, shinning Crete,  
Thereupon he bounded from his ship and  
flew to the palace,  
Here he set eyes upon his beloved, though  
she recognized him not,  
He went first to her father, that most  
stately king, to beg  
His permission to wed his younger  
daughter, the fair Sarianis,*

*Hardly without second thought, that  
grand king allowed it,  
The ill-fated courtship, for what mistrust  
was there?  
Indeed, He also failed to observe similarity  
to the once-maiden,  
For who would believe that girl might be  
boy?*

*Now with full compliance of the father,  
the new Philarus,  
A man full of love in his heart, was  
confident that his lover,  
That most unsuspecting damsel, would  
share his joy.  
Upon entering her chamber he professed  
his love,  
Not thinking of his altered appearance, he  
informed her  
Of their impending marriage and awaited  
with open arms  
Her joyful reciprocation, an ever-  
unfulfilled hope.  
To negate her obvious confusion, Philarus  
spoke:  
"My fair lass, we are wed! That maiden  
that,  
Once, you loved is forever gone, and in her  
place I here stand,  
You must see, we two can live together,  
where as Philara,  
That star-crossed maid, could never have  
been yours!"  
Then bearing the shocked and mourning  
maiden into his arms,  
Philarus laid his lips upon her sweet and  
trembling mouth.  
Sarianis misconstrued his words, she  
believed only one thing,  
That this strange and unknown man had  
slain her beloved,  
And now she would be his bride, a  
betrayed of her dear love.  
Her immoderate weeping was a cause of  
confusion  
For the joyous groom, for he could not*

*understand her grief,  
Did not understand her dark and ill-  
formed thoughts,  
Nor was there a chance for him to explain  
his confusion,  
For, though Sarianis was only a girl, she  
was very much in love,  
She was also very much in mourning and  
well beyond reason.*

*She belied her sex and her upbringing and  
committed a most tragic,  
Indeed tragic and brave, deed. She drew  
the dagger resting near.  
This very dagger, never intended for the  
hand of a wife,  
She had just now dedicated as a sacrifice  
to Diana,  
To who she swore she would give her  
loyalty and body ever more,  
There would be no husband to Sarianis,  
thus she was so resolved.  
Plucking this dagger from the clutches of  
the bedding,  
Now unwillingly intended for the  
marriage bed, where it had rested  
She drove it deep into her once-lover, now  
believed a murderer.  
Although Aphrodite had lost interest in  
this most sad affair,  
Diana, that most radiant and fierce one,  
forever a maiden herself,  
Took pity on her new follower, and  
revealed to her, to her sorrow,  
The catastrophe that was her recent deed:  
lad was lass,  
Once again the maid resided in her own  
body, as it perished,  
As the breath was drawn out of it, and the  
skin became pale.  
The offending blade however, had not  
been impaled deeply,  
Not savagely enough, into that sweet and  
pure flesh  
Death was not instantaneous, Philara  
lingered on in her body,*

*Newly returned to her, for a short time, too  
brief and too lengthy.*

*Now linen, first for the virgin, then the  
wife, was for the corpse,  
Stained deep red with the blood of a  
misunderstood love.*

*Sarianis, that twice-sorrowed girl clove  
desperately to her lover,  
With life slipping quickly through her  
fingers.*

*Now she realized her grievous error, her  
unwitting loss.*

*She pled with the gods to return her fair  
paramour,*

*Back to her once healthy state, but no tears  
could return*

*A life that had been so stolen, so abruptly  
broken.*

*As Philara's life dimmed, as a veil stole  
over her eyes,*

*Her dear beloved begged her for  
forgiveness,*

*To pardon her haste and her love, for love  
had been her death.*

*Yet a feeble maiden, with only a few  
breaths left to her,*

*Philara, in return berating herself for her  
hastily words and deeds,*

*Bestowed absolution and beseeched such  
for herself,*

*A thing easily given, with much insistence  
on the dearth of need.*

*Poor, wretched Sarianis, having no desire  
of a loveless life,*

*Reclaimed her dagger, and with Philara  
reproving, she*

*Drove it through her own fluttering heart,  
alight with love,*

*Claiming she no longer had need of it, if  
she could not share it.*

*Now wrapped in the arms of the other this  
ill-fated pair,*

*Reaching the threshold of death, mingled  
their blood,*

*Never for them a happy bed, oh, cruel,*

*uncaring fate!*

*But when no hope remained, brave Diana,  
fiery goddess,  
Took pity, lamenting their tragic end, and  
offering recompense.  
For she, that blessed immortal snatched  
up their souls,  
Drawing them away from Hades and the  
eternal afterlife.  
She bestowed upon them the greatest  
honor,  
Their transformations were immediate,  
the transfer complete,  
No longer did they wear the hide of men,  
no longer tread on two,  
Now they ran, faster than the wind, now  
they bayed their love,  
They would be together forever, immortal  
in their new shapes.  
For Diana had remade them into hounds,  
to be for eternity,  
Members of her illustrious pack of  
hunting dogs, never,  
Though the winds of time would tear at  
mortals,  
Would they be separated the one from the  
other, their unity was infinite.*

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**From ABC to DNA: The Evolution of  
the Word-Species**

Name: Ghazal Zek

Date: 2005-05-13 15:51:16

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*Story of Evolution-Spring 2005 For*

*The Story of Evolution, Spring 2005 Final  
Web Papers On Serendip*

*In her essay, "The Usefulness of Stories" the  
biographer, Ghazal Zekavat, asserts that*



*"the "fitness" of [a] story is not something determined by Darwinian evolution or Mendelian genetics, but it is something completely subjective which follows its own rules of survival all together (1)."*

*What are these rules of survival? How do they differ from Darwinian evolution? As the scientist, I would like to challenge Zekavat's claim that stories possess their own rules of survival, by employing a Darwinian motif in my exploration of the evolution of stories.*

*Supposing that stories compose different classes on the Linnaean hierarchy, then perhaps the words that derive them may each be addressed as species. Further, can the evolution of these species control, or perhaps even predict the general direction of story-telling in years to come? To answer this question, let us take a closer look at these word-species.*

*Darwinian evolution dispelled any belief that species arose spontaneously, as all species have common ancestors. Much in the same way that evolutionary trees are able to link different species back to one ancestor, word species may be linked through common lineages. A study published in the Physical Review E, "Topology of the Conceptual Network of Language" describes language as a network, where the words correspond to nodes of the network, and a link exists between two words if they express similar concepts. In the study, investigators Motter et al analyzed 30,000 words in an English thesaurus dictionary. Using an algorithm, they were able to conclude that there are only three degrees of separation between almost every root word in the English language (although they speculate that this holds for other languages, as well.) For example, the word actor and universe can be linked by just two intermediaries.*

*An actor can be thought of as a character. One's character correlates to one's nature. Finally, the universe is nature on a grand scale (2).*

*This study makes another important implication. The researchers assert that if two words can be connected to the same third word, then there is a great probability that the two words are directly related. Therefore, nodes must be highly clustered. In a review of Motter's study, Phillip Ball asserts that this notion makes sense, for if you and I share a mutual friend, he argues, we probably know each other as well. What is so important about the idea of clustering is that it allowed the investigators to apply concepts of cognitive science. Since we remember things by association, Ball notes, it is not surprising that language is so highly clustered. From this concept, the researchers make the claim that language has evolved its current structure because it is easy to use. Therefore, words have acquired multiple meanings in order to make the network they construct highly interconnected, creating a short average path length between two words (3).*

*Before going any further, three interesting points arise from the discussion of word connectedness. First, one may find it helpful to apply the Hardy-Weinberg theory to word-species. The Hardy-Weinberg theory suggests that a given population will not change (that is, its gene frequencies and genotype ratios will remain constant) if there is no mutation, no gene flow, no genetic drift, no nonrandom mating, and no natural selection. (4) Since words in the English Language exhibit a high level of connectedness, that is, most words, if not brother and sister are at least second or third cousins, they fail to comply with one*

*Hardy-Weinberg essential—nonrandom mating. Thus, the high rate of change in the English language is at least partially explained.*

*Second, inbreeding among animal-species often leads to mutations. Jeffrey Eugenides' novel, *Middlesex* portrays how an act of incest led to a mutation in the 5-Alpha-reductase gene, resulting in a hermaphroditic protagonist. Here, our word-species differ from animal-species in that "incest" among words is the rule, not the exception. The study conducted by Motter et al viewed language as a network of words moving toward a distinct pattern—simplicity—beneficial to our usage of language.*

*Third, it will prove helpful to attempt to classify the interconnectedness of words. Were the 30,000 words studied by Motter and colleagues connected metaphorically? That is, are they connected based on a "similarity despite a difference" or are they connected metonymically, that is, through "direct association" (5). Does it make sense to connect words metonymically? Let us try our own metonymic example with dog and book. Dog --> Bark --> Trees --> Paper --> Book. Hey, it works! Can this method be counted upon? Short of testing out 30,000 word combinations, Motter and colleagues used a thesaurus dictionary, further confirming that words were connected by their meanings, not other associations. Let us now try to connect dog and book the way Motter would have, by their meanings. Dog --> Canine --> A type of tooth --> Wisdom teeth --? Intelligence --> Books. While this is in no way a perfect linkage, it does help to illustrate an interesting point. It was relatively easy to link words through association, however, someone else may associate dog with "claw" and where may they go from there?*

*Let us try again: Dog --> Claw --> Scratch --> Blackboard --> Study --> Book. This network took one extra intermediate step, and is perhaps less "fit" than the initial metonymic network I presented. Finding the most "fit" lineages, that is, the shortest lineages may also illuminate the directionality of word-species. Furthermore, connecting words based on meaning as opposed to definition appears to be a safer route, since it is based on a set meaning, as opposed to an association, which may change not only with time, but between person and person.*

*While the discussion of the nature of language to tend toward simplicity sheds interesting light, one is left wondering where the newest additions to our vocabulary fit in, if they fit in at all. Technology has certainly had a helping hand in the shaping of language. A surge of new words arises with the advancement of any field. Modern physics, for example, has introduced to us the terms: pulsar, positron, gluon and lepton, to name a few. Other fields, although once equally esoteric, now generate terminology that has become imbedded into our daily lives. There is no doubt that the reader has "surfed the net," "googled" a phrase and "emailed" a friend. Further, the terms "hard drive," "megabyte," "URL" and "HTTP" have become commonplace.*

*One thing that can be said for certain is that the more advancements are made, the more vocabulary we will be faced with. How would Motter and colleagues conduct their experiment on word linkage 10 years from now? Perhaps it is best to group technology words under one category, internet jargon under another, and so on, so that connections will be more obvious. Over time, associations are also bound to change, and thus new*

*words are bound to garner new associations as well. Although associations are so variable, they possess one trait that does not change. People naturally associate words that share similar meanings, or sound and look alike. As long as new words are being created, new associations will be drawn to familiarize them.*

*With the advancement of technology at record speed, the modern-story teller is not only presented with a new vocabulary, but new modes of communication, altogether. These new modes of communication (text messaging, instant messaging, email etc) have an enormous effect on what shape language is currently taking. The ability to communicate through typing messages has popularized a new, nonverbal, written language. Acronyms are often used to either shorten frequently used phrases (i.e. "ttyp" for "talk to you later") or to explain unseen actions (i.e. "lol" for "laughing out loud"). A new arrangement of letters is not the only way communication is evolving. Symbols found on keyboards, initially meant for specific grammatical usage such as colons and parentheses are now being employed in new ways to communicate nonverbally, in the form of "smileys," for example ": )". It is not difficult to picture how a new juxtaposition of the colon and parenthesis came to symbolize a smiley face, since the two symbols together resemble two eyes and a mouth, albeit on their sides. The evolution of other symbols, such as the "@" sign are less obvious, but may shed new light on the evolution of the elusive, non-verbal word-species.*

*In 1971, a computer engineer named Roy Tomlinson sent the first ever electronic message—to himself. Tomlinson chose to incorporate the @ sign into the structure of the email so as to not cause any confusion,*

*since the @ sign does not appear in anyone's name. The @ sign is also commonly used in shorthand to replace the word "at." Perhaps surprisingly, however, the symbol has a much richer history than this. In July of 2000, an Italian researcher discovered some 14th Century Venetian commercial documents clearly showing the @ sign. The sign was used to represent a measurement of quantity, the "anfora," or jar. Thus, the @ sign began (to the best of our knowledge) as a symbol used for commercial purposes, and has been used to represent many different things throughout its history, according to linguists. The @ sign appeared on the first model of the Underwood typewriter in 1885 as the "commercial a" and has been a part of modern computing ever since (6).*

*What we can gain from the history of the @ sign is that a symbol has staying power if it has the ability to adapt to changing environments over long periods in history. In evolutionary terms, the @ sign has proven its resilience in the survival of the fittest. Furthermore, we can attribute the simple, yet elastic nature of the @ sign to its success.*

*If simplicity and elasticity are important in the fitness of word-species, then can we identify word-species on the brink of extinction? William Safire explores this in his article, "On Language; Tmorras Nglsh" in the New York Times. Through the eyes of modern linguists and lexicographers, Safire speculates what language in the year 3000 will be like. According to Safire, one such prominent lexicographer, Sol Steinmetz, predicts that spellings and even pronunciations of words will lose their complexities, and that certain grammatical cases (i.e. whom) may disappear all together (7).*

*While Saffire believes that the English language is bound to lose some of its intricacies, Jared Diamond writes in Discover Magazine that the English language ought to lose some of its intricacies. In his article "Writing Right," Diamond advocates the reform of modern English Spelling. Diamond suggests that spellings should match consistently to their sounds. For example, the "superfluous letter c" should be replaced with either k or s, as needed, and new symbols should be created to replace "arbitrary letter combinations (such as sh and th) (8)." While it is difficult to predict the direction that words will take in the future, it appears that their "genetic" makeup, i.e. letters may take a more predictable route. In effect, ABCs are the DNA of word-species.*

*The evolution of words may have grave implications for at least one specific type of story-telling, the pun. Puns rely heavily on juxtaposition of words and double meanings. Therefore, it is conceivable that the progression of words, especially toward simplicity, will affect puns, rendering some obsolete, and creating others that previously could not have existed.*

*If words and, consequently, language, are moving toward fitness, if our brains are learning to more efficiently clump and categorize words, if we are constantly being barraged by a vastly proliferating population of words-species, then what are we becoming as story-tellers? The modern story-teller, now faced with new modes of communication and a new language with which to communicate has almost no choice but to oblige. In the academic setting, professors often relay information to their students through emails and course web pages. Entire classes may be taken at one's computer,*

*eliminating the need for a classroom altogether.*

*Is the evolution of language bound to affect the evolution of the story-teller? If the story-teller thrives by sharing, receiving, and creating ideas with other story-tellers, then the modern story-teller must be thriving, because of the myriad ways to engage in story-telling. The thriving of the modern story-teller is perhaps somewhat of a paradox. The fitness of an animal species depends largely on its ability to pass on its genes, whereas the modern story-teller need primarily worry about passing on "memes" (9). As long as the story-telling faculties are in tact in the modern story-teller, the body is not so necessary. Would the fit story-teller simply be a brain with an over-grown frontal lobe? This is obviously absurd, as story-tellers must possess a faculty to experience events before they can relay stories about them.*

*What of Artificial Intelligence, then? Is the idea behind AI not to create a fit story-teller, one that would only need a central processing unit (like the human brain), and perhaps an algorithm for experience? If we take the progression of technology to mean the progression of words, to mean the evolution of stories, to mean the evolution of the story-teller, then are we only but destined toward artificial intelligence? What implications would the creating of AI have on us, modern story-tellers? If AI can, with time, create the perfectly fit story-teller, a story-teller who need not worry about passing on genes, then what direction would "Natural Intelligence" take? We can only speculate.*

*The ability to speculate, of course, is not a trifle thing. There is some comfort in knowing that it is I who is creating these*



*ideas and writing these words, not my word processor. Or is it?*

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### **A Spring Afternoon**

Name: Anjali Vai

Date: 2005-05-14 01:54:12

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*Story of Evolution-Spring 2005 For*

*The Story of Evolution, Spring 2005  
Final Web Papers*

## *On Serendip*

*She fell asleep at her desk one day, and when she woke up time had stopped.*

*She sat staring bleary eyed at the clock for several minutes before she registered that something was wrong. Time had stopped at 2 minutes and 35 seconds past 1 o'clock in the afternoon. The hands of the clock were frozen. Or else perhaps the battery was just dead.*

*She climbed up onto her desk to take the clock off the wall and replace the battery, and discovered that it wouldn't move. She could feel or imagine she felt the clock beneath her hands, the smooth hardness of the glass, but her hands didn't seem to be able to connect with it. It was the oddest sensation and she was, needless to say, extremely perplexed.*

*Huh, she thought.*

*She climbed down off the desk and sat back down in her chair. She stared at the book she'd been reading before she'd fallen asleep. It was lying open, the words staring blankly at the ceiling. She bent forward and blew at the pages experimentally. Nothing happened, not a flutter, not the barest whisper of movement. No air had reached it, in fact. The breath had left her lungs and died before it crossed the threshold of her lips. She turned and stared at the room about her, at the utter lack of movement, the utter lack of sound. She sensed that air molecules hung about her, frozen, motionless, crystalline.*

*She stood up carefully and walked out the door down the hallway to the living room, where her mother had been reading the*

*newspaper. Her mother still sat in an armchair, the newspaper held at an angle before her, her eyes absorbed in a single letter of a single word. They did not move. She passed a hand back and forth in front of her mother's face a few times to no effect and then stopped, quickly turning her hand towards herself to look at her palm. It looked odd: bluish and ever so slightly translucent. She had a sudden thought that it might not truly be there, that it might just be an image conjured up by her mind, putting a hand where she expected to see a hand but where there was in fact only empty space.*

*This is so bizarre, she thought. And then, after a moment, Why am I not panicking? Shouldn't I be panicking about something like this?*

*But no. She felt calm. Lucid. Tranquil. She looked about the living room, noticed that the long filmy green curtains on the windows had frozen as they billowed out in a passing breeze. She felt as though she'd strayed into a world of dreams and shadows where nothing was real but the thoughts in her mind.*

*The door of the porch was propped open. Her mother liked to leave it open to let fresh air in. She walked outside into a frozen world. It had rained that morning, and the sky was still overcast. Clouds hung above, pearly white and purple and grey. There was a faint grey mist in the air, and the trees that stood along her street seemed slightly ghostly and not of this world. Their trunks had been stained dark by the rain, and green leaves shone unnaturally bright like tiny jewels strung together into a fine meshwork above her head. The pavement was wet, the street black with rain. She stepped out the gate directly into a puddle which did not reach her bare feet.*

*This is actually kind of fun, she thought. In a twisted, hallucinogenic Alice in Wonderland kind of way.*

*The weather looked cold but she did not feel cold. And though the street was wet and rough with dirt and gravel her feet stayed clean and dry. At the end of the street was a bus stop at which a lone woman sat. She stopped as she walked by and moved closer, looking at the woman with curiosity. It was as though she gazed at a superbly detailed wax statue. Every eyelash, every pore stood out in the misty afternoon sunlight. And every moment she expected the woman to look up and then look away with discomfort at being stared at. But the woman stayed frozen. Long dark hair stood out slightly around the woman's head where it had been blowing in the wind. A strand of hair had fallen against her cheek and one hand was half raised to brush it out of the way, her fingers outstretched, poised, elegant. Her other hand lay on her knee, and her eyes seemed to rest on that hand, her eyes half closed and far away.*

*Normally I would never look at a person like this, she thought to herself. Normally I would think it was rude to stare.*

*The woman stayed silent, frozen. Not a breath of air stirred. Not a sound could be heard. The woman's face was tired, her eyes sad with an old sadness. She felt an odd desire to know more about the silent woman, to know more about her life.*

*I wonder why you're sad, she thought. I wonder where you're going and why you're going there. I wonder if you ride the bus every day and sit at this bus stop every day and I've simply never noticed you. I wonder what you had for breakfast this morning and if you'll go home to an*

*empty house tonight. I wonder what your dreams and hopes and thoughts are.*

*But the woman stayed silent and her still face offered up no answers. It was as though she gazed at a single snapshot in a photo album of the woman's life and could only imagine what the rest of her life had held. A single frozen moment gave no answers, told no stories. It merely bred a multitude of questions.*

*She walked on, feeling suddenly wistful and sad. Everyone has a story, she mused. Everyone has a million and one stories that they never share with anyone. But this world without time had no stories. A single moment indicated and shared nothing.*

*She had reached a main street, now. Turning her steps she threaded her way through cars and bicycles and motorcycles standing motionless in the street, drivers with their hands frozen midway to honk their horns. She looked in one car window at a woman halfway through fixing her hair in the backseat, one hand running a comb through her long hair while the other tried to make her little boy sit down in the seat next to her. He had come free of his seatbelt and was sticking his head out the window, a big grin on his face as he waved at a man walking a dog on the sidewalk. The man was waving back with a smile while his dog, a gigantic German Shepard, had continued on regardless and now tugged impatiently at the leash.*

*She gazed at the frozen tableau with mild amusement. The man was wearing a black raincoat and sunglasses, and she wondered why he would be wearing sunglasses on a cloudy day. The German Shepard had its nose in something by the side of the road, and the red leash stretched*

*taut, brilliantly red against the damp dark brown fence that stood behind them.*

*She leaned against the car door, suddenly weary and unsure where to go next. The silence of the world had begun to grow unnerving. It was not a silence made by the mere absence of sound, a silence which one could expect to be broken any minute by the fall of a pebble or a rising wind. Rather, it was a silence so deep and absolute that it difficult for one to believe that sound had ever existed.*

*Why was the man in the black raincoat wearing sunglasses on a cloudy day? She would never know. She could guess. She had a thousand guesses. But she would never know. Perhaps his eyes were so sensitive that even weak sunlight bothered him. Perhaps he had conjunctivitis and carried the quaint cute belief that he would spread it just by looking at people. Perhaps his eyes were actually laser beams and if he took off his sunglasses it would kill people. Or maybe he was just in the mafia.*

*A world of wax statues has no meaning, she thought sadly. These people may as well be dead. I'm ready to wake up, now.*

*And then as if on cue her elbow accidentally brushed the little boy leaning out the window and the world exploded with sound.*

*Children's laughter from all sides. There is a birthday party in progress. The floor is strewn with wrapping paper and confetti and toys. The children are wearing overly cutesy cheap party hats covered with pictures of clowns and flowers and rabbits. Two little boys are flinging cake at each other. A little girl sits at the window and looks outside and sings to herself while she*

*taps the window with a stick. A couple of the children are bouncing up and down on the couch and blowing into whistles. Another group congregates around a puppy that the little boy has just received. The puppy is a black Labrador with a red ribbon around its neck, and its tail wags furiously as the children fight over who gets to hold it and it tries to lick everyone's faces simultaneously. The children are shrieking with laughter. "Give it! I want to hold him now!" The room seems deafening. A mother stands to the side and watches the proceedings with weary amusement, while the father takes picture after picture with a little black camera.*

*As suddenly as the vision began it was over. She found herself back where she had been, leaning against the car door with the silent little boy half-hanging out the window, reeling and disoriented from the sudden return to stillness and quiet. Sound still rang in her ears.*

*She stared at him in wonder. Did that really just happen? How did I do that? She reached out a hesitant hand and touched the boy on the head.*

*He sits in a classroom, legs swinging and feet idly kicking at the sides of the desk. The teacher is sitting at the front of the class and reading a story out loud while he doodles on a piece of paper. The words of the story wash over him and he pays attention with only half an ear. It's not a very good story. He liked yesterday's much better. He's drawing a dragon with fire coming out of its mouth that sits in the middle of a ruined castle. Screaming stick figures flee across the drawbridge and out across the boundaries of the white page.*

*And the vision was gone again. She had seen inside his mind! That must have been*

*it. She had seen the little boy's memories. Suddenly animated, she stood up and walked on, her feet bringing her to an open air café sitting by the side of the road. The proprietor sat lounging at a table near the counter, smoking a pipe. She had known him since she was a child eating at the café with her parents, and he had always scared her. He was a big man with a thick black beard and heavy scowling eyebrows. He rarely spoke, and when he did it was in a deep sullen gravelly voice. He intimidated her now as well, seeming to loom even when sitting down. But her treacherous feet took her closer, driven by morbid amused curiosity. He had always been both a figure of fear and an object of amusement to herself and her friends, quiet and sombre and forbidding and strange as he was. She had always suspected he had dark secrets hidden in his past, and now she had the power to find out. The idea of the potential of her new power was exhilarating. She felt omniscient, God-like. And so naturally she reacted by behaving like a child.*

*She plopped herself down in the chair next to the man. "You're not so scary, really," she whispered to herself. Her whisper made no sound but she did not care. "Let's see what's in there." She reached out a hand and touched his forehead.*

*He sits in a dimly lit kitchen and peels an orange. The orange is large yet still dwarfed by his huge hands, huge hands with large fingers which are still oddly nimble and delicate as they deftly tear off strips of peel. The orange gives off a sweet, strong, pungent aroma that fills the room. Pieces of its smooth bright waxy peel already form a neat pile on the wooden surface of the table before him. Somewhere in the distance a clock chimes. It is very late at night.*



*As he peels his eyes are hooded and distant; dark circles around his eyes show he has not slept well for many days. Memories swim before his vision as he peels the orange.*

*He is thinking of his mother's face. He hears her loud echoing laugh and voice and sees her broad smile. He remembers her gentle work-roughened hands as they peeled an orange for him as a small child. He remembers how juice would dribble over his hands and down his chin as he savoured the taste, the sweetness, the texture and aroma of the fruit.*

*He remembers his wife's hands and her delicate fingers as he had watched them peel an orange at a picnic years before. He had been mesmerized by her hands. They had moved so swiftly and gracefully it was as though they danced, taking off the peel in one long strip. And he had grown so caught up in the sight of her fingers and hands that she had leaned over and stuffed a slice of the orange into his mouth.*

*"What are you dreaming about?" she had laughed. But he had only smiled and said nothing.*

*Both gone, now. Both women long dead and gone. He realizes that he has been holding the now peeled orange in his hands, staring without seeing it. The sweet fragile fruit is cool against his hands. Somewhere in the distance the clock ticks. The sound seems to echo in his empty house.*

*Time has no meaning in solitude. The people he had loved and who had loved him had died or left years before, and at some point after that time had stopped. Every day drifted past, no different from*

*the one before. Every day drifted past, trivial and meaningless and at the same time lasting an eternity.*

*He tears off a piece of the orange and bites into it, then makes a face as he finds that it is dry and bitter in his mouth. Placing it down with a muttered curse, he rises and leaves the room, switching off the light behind him.*

*And the vision was gone. The big man sat frozen and silent beside her once more. She rose quickly and backed away, feeling guilty and embarrassed. A deep sadness had spread across her spirit. She had intruded where she had not been wanted and berated herself for it. She let her feet take her out of the café, feeling dazed and sad, angry with herself and lost in thought. As she stared at the street of frozen people once more she felt that she could see what the man had meant. Solitude and timelessness went hand in hand. Time had frozen for the entire world but not herself, and yet for her it still had no meaning. It was contact with other human beings, with other minds that made time meaningful, that made life meaningful... In the absence of stories and human conversation and a sharing of souls there was nothing but the eternal, ever changing present. In the solitude of her mind time did not exist.*

*She walked, not knowing where she went or to what purpose. The sidewalks were crowded here and in her aimless wandering she brushed against countless people as she passed by. Images and visions continuously flickered about her, disconnected and disorienting.*

*A rose petal falls. A woman sits alone, playing a sad haunting melody on a piano, fingers flying across the keys. A*

*teardrop rolls down a cheek. A baby laughs. An old woman dies in a dark room, while a young man holds her hand. A girl and a boy sit holding hands on a hilltop. The sun sets in a sky filled with dust and smoke. An eagle flies. Cars rush by on a highway. The cold white moon looks down on a campfire. A girl in a white dress sits in a tree and reads a book on a lazy sun-kissed summer's day. A gunshot is heard followed by the sound of running feet and screaming. A warm wind blows dust over an empty road. A cheek stings from a slap in the face. Two people hug at a train station. A heavy suitcase is lugged down a long flight of stairs. A whistle blows. A lone bird sings.*

*The stories blurred together and began to overwhelm her.*

*A flower carefully kept in a vase slowly wilts. A child listens late at night in bed to the sound of his parents fighting upstairs. A cat sleeps in a pool of sunshine. A girl stands in an empty room and twirls slowly to imagined music. Days pass swiftly. Days pass slowly. Time and death and love and hate and anger and forgiveness and beauty and darkness roll into one. Chaos and quiet and music and laughter and joy and sadness interweave so intricately that one can no longer tell where one begins and the other ends.*

*So many stories like strings of pearls woven together in a delicate pattern, like an endless cacophonous beautiful tapestry. She felt omniscient. She felt filled with a limitless sweet liquid joy and a limitless dark heavy sorrow. She felt as though she were drowning. Is this what it would be like to be God, she wondered? To know every story, to know every mundane tiny beautiful or shameful detail of every being on the planet? For as time went on she felt*

*other beings whom she did not see intruding upon her consciousness. She felt she could catch glimpses of other minds without having to touch them anymore. It seemed to her as though she was losing herself entirely, that she was becoming a bodiless selfless wraith floating upon the tide of the cacophonous memories and images and ideas that engulfed her. The idea of losing herself sent a sudden wash of terror through her and she fled, stepping blindly off the sidewalk and into the cool safety of an open doorway.*

*Images faded. Cacophany receded. She could still feel it flickering at the edges of her mind but she had peace and quiet again. She sank to the ground and for a while merely sat there, collecting herself and reassuring herself that she was still there. Her mind was not large enough to carry the stories of everyone who lived and dreamed, she reflected. Yet the experience of being able to touch so many lives had still been phenomenal.*

*After a time she began to look about her and realized that she sat in the doorway of a small bookstore. Curious, she stood with some effort and peered inside. It was a bookstore she had never noticed before. The store was tiny and crammed so tightly with books that they rose from the floor to the ceiling. There were actual bookshelves within the bookstore, she surmised, but the quantity of books had long ago surpassed the capacity of the bookshelves and books stood in stacks several layers deep that all but obscured the shelves they nominally stood upon. Fascinated, she ventured inside. She walked down a narrow corridor, books towering precariously above her to either side. The farther she went away from the open front door the darker it grew. At the end of the corridor was a tiny lit enclave, in which a*

woman sat upon a stool reading in a pool of lamplight. She ventured closer. Careful not to touch the woman and unleash a flood of memories, she peered over her shoulder at the book that she read. She read the page once and then again, and furrowed her brow in thought. It both fascinated her with its implications and made absolutely no sense. A conversation was occurring between two characters, apparently named Teddy and Nicholson.

**"Okay," Teddy said. He was sitting back in his chair, but his head was turned toward Nicholson. "You know that apple Adam ate in the Garden of Eden, referred to in the Bible?" he asked. "You know what was in that apple? Logic. Logic and intellectual stuff. That was all that was in it. So – this is my point – what you have to do is vomit it up if you want to see things as they really are. I mean if you vomit it up, then you won't have any more trouble with blocks of wood and stuff. You won't see everything stopping off all the time. And you'll know what your arm really is, if you're interested. Do you know what I mean? Do you follow me?"**

**"I follow you," Nicholson said, rather shortly.**

**"The trouble is," Teddy said, "most people don't want to see things the way they are. They don't even want to stop getting born and dying all the time. They just want new bodies all the time, instead of stopping and staying with God, where it's really nice." He reflected. "I never saw such a bunch of apple-eaters," he said. He shook his head. (1)**

*The woman's hand obscured the rest of the page. See things as they really are, she mused. But who decides what reality is,*

*anyway? And then, And what's an apple-eater? What on earth is this conversation about? She looked thoughtfully at the woman engrossed in the book. I'll bet you know, she thought. I'll bet you could explain it to me. I wonder... She had had a sudden idea, and reached out a cautious hand towards the woman's head to test it. Rather than touching her head, though, she let her hand continue on through beneath the surface. And there, there it was: she could see the woman's mind. Thoughts hung frozen like the silky strands of a spider web strewn with frozen dewdrops, like luminescent threads hung with tiny jewels. She closed her eyes and breathed and the mind surrounded her.*

*What is this story about? she whispered, sending out the thought delicately, gently, like a breath of air that barely stirred the frozen strands of jewels that hung about her.*

*And at first there was nothing, but then a faint answering thought echoed back: It is about a little boy who achieves Enlightenment.*

*You've read it before?*

*Many many times.*

*What's an apple eater?*

*A pause that may have lasted an eternity, or perhaps merely a fraction of a second before the thought returned. Someone who uses too much logic, who puts too much store in what they have learned and seen and felt.*

*But what do apples have to do with it?*

*The apple in the Garden of Eden. The fruit of knowledge. The boy in the story likens Enlightenment to a return to innocence,*

*discarding all preconceived notions about the world. He purges himself of the apple.*

*Oh, I see. So that's what he means when he says the apple contained logic and intellectualism. But wait, how can one live without preconceived notions? How can one live without logic and without drawing off of what one has learnt and seen and felt?*

*You don't. You've achieved Enlightenment and you join God. It's like he says in the story. You leave your body and go to a nicer place.*

*She paused and thought for a long time. Or perhaps she only thought for a fraction of a second. She could not say. And then, But that would be the end of stories, she mused.*

*Perhaps.*

*I don't like that. I would not want that. I like stories. And I like drawing from things I've learned and seen and felt and building new stories. I like knowing about the world and puzzling out its messiness and beauty and complexity. I like learning about other people's lives and seeing their quirks and strengths and darkness and light. And how is any of that not real? Who gets to decide what reality is, anyway? Isn't my reality as good as anyone else's?*

*I really couldn't answer that.*

*But haven't you read this story a bunch of times and thought about it a lot?*

*I'm currently frozen in time and unconscious, remember?*

*Oh. That's true. But, still. I happen to like apples, you know.*

*As you wish. Many do. Suit yourself.*

*She briefly nodded her thanks, then, and withdrew from the woman's mind, finding herself back in the tiny bookstore crammed with books. But as she withdrew her translucent hand from the woman's mind, she noticed that something had come with it. It looked like a tiny bright mote or jewel, like a miniature firefly hovering in mid air. It floated and seemed to gravitate towards her even as she moved her hand away, glowing with a steady light that shone from within.*

*She stared at it, curious and perplexed, and then it came to her. Of course - it's an idea. That's what an idea looks like. That's what a meme looks like. She opened her hand and let it float onto her palm, and cupping it carefully held it up to her face. I wonder if I can find out what idea it is, she thought. She gently touched it with an index finger, nudging the minute bit of light. It felt warm to the touch and tingled just a bit, and sent a rush of blurry nonsensical impressions through her mind. The colour blue. A breeze, rapid movement, heaviness, darkness... She withdrew her finger and blinked, perplexed. That was odd. And yet as she sat and mused about it she understood.*

*I suppose there's no reason why ideas should make sense disconnected from the mind they were created in, she reflected. They are not really independent entities. And I guess that although an idea can be spread through words or images, the words and images will be interpreted differently by every person who encounters them.*

*She leaned back against a stack of books behind her, lost in thought. So the word spread is kind of misleading, she mused.*



*Ideas don't spread in the sense that they pass from one being to the next as independent entities, but in the sense that every being remakes the idea anew, and always with their own slight differences... Interesting.*

*She carefully placed the idea back where it had come from, and then stood up and walked out of the bookstore. As she walked she saw more of the tiny motes trapped within the pages of the books that she passed, as though someone had sprinkled glitter all over the store. Millions of ideas... Merely potential ideas, though. Potential ideas to be interpreted differently by everyone who encountered them...*

*She paused in the doorway, looking out at a frozen busy main street still bathed in cloudy early afternoon sunshine. This has been fun, she thought. But I think I'm ready to go home now. And so she threaded her way through frozen pedestrians and frozen traffic, and after walking at a leisurely pace she ultimately found herself standing outside her house once more. She stood for a while, pondering, and then looked up at the great old trees lining her street and a smile spread across her face. I wonder... she thought. She walked up to the tree that stood outside her gate and reached out a hesitant hand, spreading her palm against its trunk. The images that poured into her mind were slow and grand and quiet.*

*There was above all the sense of endless time. What the tree knew was great age and great patience and time continuously passing like sand pouring through a funnel. Season cycled after season, and the tree grew, slowly, branches reaching out to the sun and spreading to form a canopy. Leaves unfurled and spread and grew and then slowly died and fell to carpet the*

ground, and the next year the cycle repeated itself. Sunlight shone through leaves sending dappled shadows onto the ground. The sun went down and the moon came out, spreading its cold white light over the world. The moon disappeared and sunlight warmed the tree's branches again. Little lives grew within the wood, grew and died within a heartbeat. Birds nested in the branches and flew away in a sudden confusion of wings and colour. Squirrels crouched motionless upon its branches for a moment, all senses alert, then disappeared up the tree with a swish of a bushy tail. Time passed like sweet honey oozing from a honeycomb, golden honey illuminated by sunlight as it falls slowly to pool upon the ground.

The vision slowly receded and she closed her eyes for a moment as it did, savouring the retreating impressions. She smiled and slowly opened her eyes once more. "Thank you," she whispered voicelessly up at the tree. And then she walked back inside her house and once inside back to her room, in which she saw that she was still asleep at her desk. Somehow she had known that that would be the case.

She paused and pondered the image of her sleeping figure, for a moment. It was an odd sensation to be looking at herself from the outside. She tilted her head and gazed at her own still features, serene and at peace in repose. She could almost believe that she were dead. But then, she thought, isn't sleep like the little death? Every time we sleep perhaps we've died for a tiny space of time. And perhaps when we die this is what happens permanently: we step outside of our bodies and outside of reality and become omniscient...

Then she slipped back into her body and

*woke up. She raised her head and looked up at her clock. It was 1:03 in the afternoon. Time had started again. She grinned, rubbed the sleep from her eyes, jumped up and ran into the living room to where her mother sat reading the newspaper. Coming up to her mother from behind she gave her a big bear hug around the neck.*

*"I just had the strangest dream," she informed her mother. "And do we have any oranges? I'm starved."*

## *References*

*1) Salinger, J.D. (1953) "Teddy", from Nine Stories. Boston: Little, Brown and Company (pp.200-201)*

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### **Gender as a Socially Constructed Phenomenon**

Name: Kelsey Smi

Date: 2005-05-16 10:48:05

Link to this Comment: [15195](#)

## *Story of Evolution-Spring 2005 For*

*The Story of Evolution, Spring 2005  
Final Web Papers  
On Serendip*

*Genes and environment both play a role in determining the expressed characteristics of an individual. In genes exists the potential for phenotype, but the role of*

*environment prevents a one to one ratio existing between genes and behavior. Such is the case with the character Calliope Stephanides in Middlesex by Jeffrey Eugenides where the socialization of the character as female neglects to tell the complete story. It isn't until her peers undergo puberty that Callie realizes that she isn't the female that her parents assumed her to be. From that point onward, she discovers herself as a hermaphrodite and ultimately decides to outwardly express herself to the world as a male by the name of Cal.*

*The split between the manifestation of the female gender and the male is indicated at the start of Middlesex with the assertion was born twice: first as a baby girl, on a remarkably smogless Detroit day in January of 1960; and then again, as a teenage boy in an emergency room near Petoskey, Michigan, in August of 1974 (Eugenides 3). These two segments of Cal's life can be viewed through the lens of the theories of two sociologists, the female gender being defined by George Herbert Mead's socialization theory; the transition and the male gender being defined by Emile Durkheim's theory of anomie.*

*Mead's theory of socialization is founded on the notion that the self cannot be established independent of social interactions with other selves. By interacting with others and engaging in social acts, humans can have meaningful interactions that possess more meaning than could ever be achieved by the rudimentary responses that are achievable by simple organisms. Instead, humans, by establishing social acts, can convey ideas to other humans that can only be interpreted in one way. This occurs through the creation of gestures that convey a universal response. Mead*

*indicates that through universal symbols, the expression of ideas is possible. thinking always implies a symbol which will call out the same response in another that it calls out in the thinker (Mead 147). In this way, children are socialized to develop their comprehension and, ultimately, their outward expression from societal norms.*

*Mead indicates that what is essential to communication is that the symbol should arouse in one self what it arouses in the other individual. It must have that sort of universality of any person who finds himself in that situation (149). It is in this spirit that gender roles are established and the characteristics of Calliope Helen Stephanides as a female are shaped. For her, this process began at birth when her gender is erroneously classified by Dr. Philobosian when he says she is beautiful, healthy girl (Eugenides 216). Callie's parents accept this classification and raise her accordingly because they neglect to see everything about their daughter's anatomy. Callie pointedly comments on herself as existing as a baby in a hypothetical diorama where all of her phenotypic characteristics are observable by questioning "an you see me? All of me? Probably not. No one ever really has (218). In doing so, she provides insight as to the nature of the complexity of the problem of establishing the gender of an individual. After her gender is established Callie conforms to those particular gender roles.*

*When Callie is fourteen years old, Dr. Luce, the doctor who studies gender disorders, views a movie of Callie when she is two and a half years old on Easter morning. It shows her mother handing her a baby doll and her responding by hugging the doll to her chest. Dr. Luce uses this brief segment as proof for his theory that gender roles are established early in life (226). The video*

*indicates the role of socialization in reference to the perception of the self by the self. Being raised as a girl causes Callie to act in a way that is appropriate for females when she looks at herself in the mirror:*

*For hours at a time I would admire my looks myself, turning this way and that before the mirror, or assuming a relaxed pose to see what I looked like in real life. By holding a hand mirror I could see my profile, still harmonious at this time. I combed my long hair and sometimes stole my mother mascara to do my eyes (278).*

*In this way, Callie acts in a fashion that is appropriate for females because she shows much concern for her appearance and wants to know how she is perceived by others.*

*In acting as she does, Callie proves that she is fully assimilated into the role of a female, at least in that point of her life, by showing her actions in front of the mirror as she brushes her hair and attempts to convey herself so that she can see her own reflection as others see her. Callie does this because she understands that it is her role as a female to do these things and because she has seen other women, presumably her mother, do them also. In this way she is comfortable with her role as a female because she was socialized to an extent that made this possible.*

*Callie upbringing never involves her parents telling her what will occur to her body, so she exists in a blissful and unknowledgeable state until the point when she sees her brother popping his pimples. He tells her that she will also get pimples just like everyone does when they go through puberty. Her mother tells them to be quiet, but she didn't need to have said that because it was that word: puberty (279) silences Callie immediately. The*

*word scares Callie because it pertains to an aspect of life for which she has no knowledge or experience, yet she can tell from her brother words that puberty is part of the natural process of growing up. Therefore, she would experience it eventually.*

*Callie exists as such until the point when she notices the appearances of her classmates change while she remains the same. When this occurs, the socialization that she previously received to be a female starts to break down and she questions why she is not developing normally like all of her classmates. At this point, she neglects to consider the fact that genetics could be to blame. However, she does recognize that there must be a difference between herself and her classmates that results in her lack of ability to develop normally.*

*In terms of her knowledge of herself and her classmates, the best explanation that she can devise is diet because she ate the Mediterranean food that her mother prepared. Her classmates, by contrast, consumed American food. As a consequence, she also wanted to consume American food because she believed that the Mediterranean food was inisterly retarding (Eugenides 289) her maturity. In her lack of knowledge about the inbreeding that occurred in her family, explaining her own situation in terms of diet is the best that Callie can do.*

*The transition continues when Callie interacts with her brother, Chapter Eleven, when he is home on vacation and is confused by what he sees when he looks at his sister. He asserts, looking at my little sister and thinking she doesn't look like my little sister anymore (314). The comment confuses Callie and she asks what he*

means. However, she never learns because her brother is incapable of figuring out what he means. Callie, at this point, does not care because she has other things to do. At this point, she does not see herself as different from typical females that she knew. Her brother does see the difference, but he fails to comprehend what he sees and thus cannot articulate what makes the Callie whose gender confuses him different than the one he knew several years earlier.

The point at which Callie decides to live as a male and to go by the name Cal is the time when he is operating under anomie, a theory that was developed by Emile Durkheim and which can be loosely defined as normlessness. This occurs when Cal finds himself distanced from the values with which he was raised, so by existing as a female he could only continue to work by routine (Durkheim 371). In the process, he would be operating outside of the structures in which he existed as a hermaphrodite.

Cal starts his journey as a male by writing his parents a note to explain his situation. As she leaves the hotel she thinks, *it was the last time I was ever their daughter* (Eugenides 439). Such begins his life of deviating from the gender role in which he was raised. He begins his physical transformation by buying new clothes and getting his hair cut so that when he left the barbershop, he was a new creation (445). At this point, he no longer feels strange being around other people and those whom he sees do not know the events of his past.

As a newly-gendered male, Cal operates in the same way as the worker conceived by Durkheim because he is, then, not a machine who repeats his movements without knowing their meaning, but he



*know that they tend, in some way, towards an end that he conceives more or less distinctively (Durkheim 372). This is the spirit in which Cal gets his hair cut in order to portray himself to the rest of the world as a more natural male.*

*Cal existed first as a female because this was the primary instinct that existed as a consequence of socialization. However, environment s it pertains to the family life of an individual nly achieves so much. At a certain point, exterior factors (such as the self perceived in comparison to the peers of the self) also contribute to the composition of the individual. In Cal case, the gender that was not the consequence of childhood was the one that was the one that ultimately became the gender of choice. Unfortunately, in American culture, gender is not accepted as depicted outside of the male-female binary. Since Cal exists as a hermaphrodite hus defying the traditional binary e must choose the best possible option. In his case, this meant existing as a female until age fourteen and as a male thereafter.*

*It is useful to analyze Cal in terms of the theories of Mead and Durkhiem because the two distinct theories capture the two equally distinct segment of his life that manifest themselves as the two distinctly different genders. Having both theories serves to bolster the notion that Calliope Helen Stephanides was born twice, first as a girl and then as a boy.*

#### *Resources*

*Durkheim, Emile. The Division of Labor in Society. New York: Free Press, 1965.*

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## Writing about Writing: A Literary Experiment

Name: Ivelina Yo

Date: 2005-05-16 17:36:21

Link to this Comment: [15198](#)

### *Story of Evolution-Spring 2005 For*

*The Story of Evolution, Spring 2005*

*Final Web Papers*

*On Serendip*

*The most frustrating thing that I can experience in academic aspect is the blank page of the paper that I have to turn in tomorrow and I have no clue what so ever on what I am going to write. You, people out there who identify yourselves as ;°humanities-persons;± probably have no clue what I am talking about - it might compare to how you would feel if you find yourself tomorrow taking the final exam of a three-hundred level physics class. I would actually say that it is even worse, because what stares back at you from that blank paper is your own emptiness and inability to put your thoughts in words... And it is extremely scary to be facing that, believe me. A strategy to tackle the situation: what impressed me the most about the text I am going to be writing about? The feedback - it hardly works but it is at least something. You start writing about a random thing that actually interests you just to fill that blank page. You write a page that you know is crap... You leave it and come back after half an hour. When you read it you probably get*

*terrified... You change it slightly to have any structured-like appearance and address a topic. then you leave again for a while... and so on you go for quite a while at least finally you shape that page into something that represents the initial structure of a paper that you know has a very precise purpose and road to follow toward revealing an idea. But there is a lot more to that:*

*....Let me tell you something about myself. I am obsessive compulsive. Even if it is four in the morning and I have not slept for two days, I will make sure that all my crayons are in the right place arranged in the right order. My clothes are arranged in specific order according to color and type and every article has its own hanger. I dust my room every three-four days. Clean at least once a week and mop my floor. I get frustrated when somebody touches my things. In the basis of all of that, I believe, lies the orderly manner my brain works in: everything is specifically arranged and structured and ALWAYS follows a logical pattern. Humans are pattern making creatures, but in my case I am not only that - I am OBSESSED with patterns and organization. The purpose of this lyrical deviation? This obsession of mine is a key characteristic of writing... I have never in my life written a paper that does not have a logical structure. And there you go: my problem with papers.... truth is that I cannot write a paper unless I know exactly what I am going to say, how I am going to say it, and how it is going to come out. Thus, for me, the most difficult part of the writing process is organizing my and structuring my train of thought.*

*(I have to point out that throughout my education before I came to college I have been taught to write in a very distinctive manner from what is generally accepted*

throughout Europe and America. Bulgarian papers have the same basic structure but an absolutely different purpose. What happens is, you are given a specific question about a text/s. You have to have read literary critics about those texts and KNOW what the interpretation of the key points of the text IS. Then you use these to adapt them to the question you are given. First you write a introduction /usually for each text studied there is a fair number of developed introductions that can be easily modified to adapt to any topic, and all you do is memorize them.../, then write thesis, which is in essence the short answer of the question in which you touch upon all key points that you are going to discuss, followed by the body of your paper that follows the exact order of your thesis, but is only an elaboration of it, and finally you write a conclusion which closes up the topic. The point of these papers, as you may have noticed, is to show that you have read and learned the critical analyses and it has nothing to do with teaching you to develop you literary thinking /maybe that is why I lack any/. Now, you would think that I was amazingly good at these papers. Well, funny thing is I was NOT. I hated proving a point that I did not believe in so it never worked out for me.)

Once I have a clear ;°vision;± for my paper, however, it all goes downhill and is done for a minimal amount of time. What I am saying is that the writing itself does not bother me (although I frequently find myself struggling with putting my thoughts in words, but that is a whole new case which I will gently pass over); it is the fact that I cannot start writing about something detached just off the top of my head without having a very specific idea where I am going with it that bothers me.

*Another huge problem that I experience is formulating my thesis statement. The issues, as I see them, behind this problem are two. First of all, a thesis in the beginning of the paper totally shatters the logical flow of the argument... Why would you want to tell your reader what your paper is? First, it absolutely kills all the surprise elements and second you tell them what you are going to tell them but it is only too succinct to actually make meaning of your idea... I completely lose the pint of the thesis... and the second issue that I was talking about is repetitiveness: what your paper will look like is: intro, thesis, an elaborate variation of the thesis, restatement of thesis... I would like to believe that my reader would be intelligent enough to understand me from the first time and would not need the other two. Hopefully. (A random association: feeding baby birds - the mother collects the food, chews it up and the puts it into the little birds' mouths. /it is supposed to be a very direct analogy/)*

*Another problem that I have when writing papers that goes back to repetitiveness - working with the text. I have been thought /going back to the 'Bulgarian' way of writing papers/ that whenever you use a quotation you have to explain and analyze it in depth. Usually when you want to make a point using the text you do not put a random, obscure quotation, but rather one that clearly demonstrates or clarifies what you are talking about. There is no need for an explanation. Furthermore, most of the times, quotations that do fit in with your writing are extremely difficult to find. I feel it is much more appropriate to just briefly summarize the text reference and show the point I am making than 'stick in' a quote, then explain it, and finally make meaning of it. This, of course is not always*

*true because occasionally there is this point when you HAVE to use the exact particular wording of the text or otherwise it just looks bare. yet, those are rare...or at least for me...*

*Last, but not least, something that I feel is a rather universal problem: conclusions. Need I say that when you are so deeply involved with what you are writing it is extremely different to detach yourself and make an adequate, NON REPETATIVE summation and pithy /complicated and elaborately sounding words are a MUST in a ;°good;± paper according to my Bulgarian literature teachers/ analysis of all you have already written. It does not really work.*

*(Now you can see why it takes me half an hour to write a ten page lab report and days to write a three page paper...)*

*I wanted to relate all I was just talking about and go back to all the work that I have done for this class and tell you the individual stories:*

*Paper 1: the Clash between Creationists and Evolutionists*

*The initiation of the topic of the paper was the in class discussion of the topic evolution vs. religion which was very interesting and challenging for me/ I am atheist and very science oriented and I believe that everything has a logical scientific explanation/ . I set out to prove what I believed in and yet was willing to compromise and actually consider and seriously evaluate the contrary idea.*

*The paper was very easy to start because I began with a personal aspect, providing a ground for why is this topic relevant to me. The next thing I did was organize my*

*ideas, which was very easy, provided I knew what I wanted to say and what points I had to discuss. The major idea was to show that religion cannot be used to explain the origin of earth, life, and humanity. At the same time I wanted to stay as detached and objective as possible. Thus, I started by agreeing that evolutionary ideas are only very good theories, yet only theories for now. Then I started my first attack on religion - I point out that it has no proof so there is no ground for considering it any more true than that any other theory, including evolution. After that, however I point out the difference between the two, which I underlined and was the fundament for my conclusion - religion affected society as well and not only the scientific world. And then I strike: I say that religion is not a valid theory for the scientific purpose, but because it has such a huge effect on other parts of our lives we cannot discard it for that would raise the need of reevaluation the moral basis of our society. Very clear and organized. One problem only - the thesis.*

*Or actually the lack of it... I tried to formulate one and I can see now that I failed completely. The paragraph:*

*Ernst Mayr's book "What Evolution Is" is hardly a novel and definitely couldn't be read as one. It is simply a text book about the theory of evolution. Before I read a number of articles on the topic and heard other people's opinions I never believed that any reasonable man could even think that evolutionary theory was wrong. That new perspective has made me think hard over a few issues around the battle between creationism and evolution.*

*is not even close to what the thesis of this paper should be. I seem to be trying to*

*point out that contrary to what I believe, a lot of people consider evolution to be just a made up story. It does not even suggest what I am going to talk about or what my conclusion on the theme will be. It definitely seems to be more fit for an introduction. I can understand why that would happen - I did not want to give in the end. Every paper is a story - and just like every story, once you have the end, who needs the bulk? And that is how I set out to write a thesis and ended up with a second introduction paragraph.*

## *Paper 2: Nietzsche, Hobbes and the Evolutionary Theory*

*Reading Dennett was difficult and slow. I kept falling asleep after reading half a page. When I read the chapter sixteen I definitely was interested because I knew a little about both philosophers and their theories and I couldn't instantaneously fit them in the picture Dennett was drawing. Furthermore, because I could not concentrate on Dennett's reasoning I missed the point he was trying to make in the chapter at all. I was interested in reading both philosophers so I decided it would be nice if I could research them and then point out how Dennett is manipulating his readers.*

*Again like the first paper I use personal experience to introduce the topic of the paper and show its relevance. The introduction is simple and flows very nicely to the thesis: at first I thought Dennett was inappropriately referring to Nietzsche and Hobbes but after I did my research I discovered that he actually uses them to point out a logical path to the idea that evolution is more than a theory. Then I explain what my points of confusion with both references are, what I found when I read the actual works of Hobbes*



*and Nietzsche, and finally to what conclusion arrived. Then I ask the question: how do those two just so stories fit into Dennett's frame? And I set off to make the connection that I saw between both philosophers and Dennett's book. And finally I conclude reaffirming what I found out and then suggesting a possible explanation for what caused my confusion and misunderstanding. I actually love this paper! It is so brilliantly ORGANIZED...*

*What is not seen, however, is how much work actually went into it. I wrote the paper for less than three hours. Before I started it, though, I spent four days reading Nietzsche and Hobbes and trying to see the connection between the texts and Dennett's story. Again - writing is hard until you know what you are going to say.....*

### *Paper 3: The American Immigrant Experience and Middlesex*

*Writing this paper was the greatest struggle I have ever experienced... I believe this was because I enjoyed Middlesex so much. Unlike the other books we read this semester, Jeffrey Eugenides' novel was very engaging and pleasant to read. It was so rich with social and individual issues and yet seemed to be very openly discussing the issues that it was impossible to choose a topic that I felt wasn't self explanatory. That is why I decided to talk about evolution of characters in the novel. I started by analyzing all the main characters, wrote three pages worth of analysis and important quotations and then tried to make sense of it, find a connection, pattern or anything that could turn this into a coherent paper. No good. After a week of reading and thinking about it I just gave up. Then after reading*

*Paul Grobstein's essay on the forum about fundamentalism vs. relativism I decided to write about the trans-national issue in the novel - about coming to America from a different background and experiencing the cultural shock.*

*That was even more difficult because I had myself experienced it a few months ago and it was still a painful and emotional subject for me. (I would not expect anybody to actually understand what this is unless you have experienced it and I do not want to talk about it yet because I am still bitter about a lot of issues so I am going to leave this hanging in the air) I wrote numerous drafts of this paper which turned out to be mainly my critique and analysis of American society and the ways I experienced the different aspects of the cultural shock and how I dealt / am still dealing with them. I had about ten different paragraphs that were hardly connected to each other - just free writing.*

*I kept writing and I got to the point where I was trying to explain the basis of the cultural shock. I introduced the issue talking about the image of America in international people's eyes. As soon as I wrote that first sentence I could see the paper in my head. I knew I was going to explain both images and talk about how the novel represents them. From then on it was an hour and a half of writing.*

*The final paper begins with the general introduction of the two images and a brief note about what the novel is about and how that connects to my topic. Then I just discuss the various aspects of the two images, the cultural shock and relate my experience to the presentation Eugenides gives in Middlesex. The paper is barely structured in comparison to the first and*

*second papers. But the important part in this paper was discussing different issues and actually consolidating them. So, instead of looking for specific organization/structure the focus is on the connections between the different issues. I conclude with a brief, but rather broad, overview of the novel and what I expected to see in terms of the problem I am discussing, namely intercultural transition and the image of the United States.*

#### *Paper 4: Writing about Writing : A Literary Experiment*

*It is strange and challenging talking about this paper in the very paper... how it all started? During one of the nights that I was working on my third paper I had a fist of frustration with my self and my writing abilities/inabilities. I sat down and wrote a page of the top of my head (what is now the first paragraph of this paper) and without reading it a second time I just saved it and left it for two weeks. Last night read it twice and then just started writing about my experience of writing without having ANY goal or structure in mind. I kept writing and decided that it will be interesting if I kept writing like that. Of course, I couldn't help and a structure emerged. I had a broad introduction, then listed the problems that I encountered in the writing process, and finally referred to the papers that I had written to trace the manifestations of my struggles. The purpose of this paper is not to make a specific point or proof. It is supposed to be a review of my writing; it is supposed to be a fun paper to read. It is supposed to defy all that I have been thought to do when writing and be just... creative...*

*The last word...*

*This is the last humanitarian paper that I will ever write in my life. I tried to have fun while doing it and I definitely succeeded. I hope you have fun reading it, too. And as I already pointed out earlier on, I struggle with conclusions, and this one is exceptionally impossible to come up with.... so all I am going to say is that despite all the sleepless nights and frustration, I actually enjoyed thinking through and writing the papers that I wrote for class, and especially this one.*

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*12:57:12 EDT Cycles of love and confusion, pop disposes of the space, the gap function.*

*River voices, Pontiac bones, box, at first glance, applies rífmovanny netting.*

*Tidal Echoes 2012, the earth group was formed closer to the Sun, but the integral of the function of the complex variable nondeterministically stops the sexual complex, regardless of the predictions of the theoretical model of the phenomenon.*

*Story of Evolution-Spring 2005 Forum, developing this theme, fertilizer justifies the organic style.*

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*Story of Evolution-Spring 2005 Forum,*

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