

Branching Out:

Independent Research Essays

by

The Class of 2015



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Alma Baker

Why is Something So Simple So Complicated?

“The Freedom in a country can be measured by the freedom of birth.” -Agnes Gereb.

Agnes Gereb was imprisoned four years ago for birthing babies in Budapest Hungary. She delivered over 7,000 babies and only 2 of those babies died and those two deaths were what ended her career. Agnes loved her job. I have never met anyone who cares so deeply about something as she does about childbirth. I visited her while she was under house arrest and there was this deep sorrow in her eyes. She had the eyes of a caught bird. When we sat down to talk with her, my father gave her a calendar of baby animals with their mothers and for a second the light came back into her eyes. I have never seen anyone look so lovingly and motherly at pictures of baby animals. That is when it struck me how much she really cares, how much a midwife really cares about all forms of life. They are there to care for a mother and to prepare her to bring a life into the world and then help her bring that life into the world in the most loving, special and safe way possible. You would think a person who has that much love and care would be the furthest from being in chains but in many cases around the world these midwives are the ones in chains. Why? This is my question, how did it happen? How did something so natural like birth become so complicated?

In Hungary where Agnes has lived and worked all her life, it is very difficult to have a child at home. There is a very strong medical system that is very against alternative ways like home birth. This has made it very difficult for mothers and midwives since this medical system and its obstetricians control

everything. The rules are very unclear in general so it is very difficult to have a home birth. Home birth is allowed but only women with very specialized licenses can help with home birth. In fact Agnes Gereb was the only practicing, certified midwife in Hungary when I was born in 1996. Hungarian midwives must go through almost a decade of schooling just to get a license. There is no way to get trained legally to be a midwife in Hungary. Once they get their license though they are still never really safe to practice legally. A midwife in Hungary can be tried for criminal charges just for attending a birth. These circumstances strongly discourage anyone from being a midwife. So as you can see the medical culture does not give much choice to women. The choice in hospitals is very low too; to prove this doctors will refer to birthing women as “the sick ones” and doctors are usually completely in control of mothers’ births not giving them a choice. The rates of C-section and intervention during childbirth are very high (as cited in Freedom For Birth, 2012).

Agnes was a pioneer with the work she has done. Agnes has done years of schooling and is a very knowledgeable person. Her first degree was in medicine, followed by degrees in obstetrics and in psychology (according to the Wikipedia article on Agnes Gereb). Early on she disagreed with the system. She did not agree with the many unnecessary interventions and the ways hospitals generally control the birthing process for mothers. She believed in safe birth but she also greatly believed in fostering the healthy emotional state of mother, baby and even father. She thought it very important that fathers should see their children getting born so she would sneak fathers in to the birthing room of the hospital. She was banned for doing this from practice in the hospital for six months and yet it was this hospital which later on boasted

being the first hospital to allow fathers to witness their child's birth. She soon realized the hospital was not the place for her to practice assisting birth in the way she believed, so she became a midwife instead. After going to school in England for midwifery she created the first birthing center in Hungary and started many midwifery organizations throughout Europe. She had a dream of mothers having a choice and home birth being available and made it come true. If you count all the births she attended including the hospitals, it comes out to around 9,000 births in 32 years. Many of these births were at legal risk because of the unclear laws around childbirth but she just kept going on with her work. Unfortunately after all her work the legal system started coming after her. In 2007 her license was taken away for three years because of a death during a home birth. Then in 2009 more charges were brought against her; this time she was accused of man-slaughter for the loss of a child during a difficult labor years before. In both these instances, suits were brought against her years after the incident had happened. This seems strange but that is how the legal system keeps doing things against her. Nobody really knows if certain people's or organizations' interests were pushing the legal system to do this but many people believe it is because the obstetricians of Hungary and the legal system are always trying to shut her down to keep home birth from happening. So they exaggerate every little mistake she has made to try to discredit her and the practice of midwifery. Babies die all the time no matter where they are born, in hospital or at home. Complications or sick babies will always occur one way or another and Agnes tried all she could to save those two lives. Since the laws are not clear on midwifery they could use these two deaths against her even though when she performed these births she was licensed. Most people who support Agnes and Agnes herself do not know exactly why they did this but it is

assumed as I said above that the obstetricians and the legal system are just trying to find any excuse to stop midwifery.

In 2010 Agnes no longer had her license but she was allowed to regularly advise women on how to give birth and on October 5th one woman started to go into labor accidentally in a class Agnes was giving. It was a bad situation so Agnes called the ambulance and started to assist in the birth because the baby was starting to come out. The government was waiting for her to make any wrong move though and with the ambulance came the police and took her straight to jail. According to theguardian.com a lawyer fighting for her cause said: "She is subjected to strip searches, only allowed to see her family once a month — they have not been allowed to visit her since her arrest — and can have just one 10-minute phone call every week. When she appeared before the public court she was in handcuffs and leg shackles so tight that she had a 10cm bleeding wound on her leg.

I first read that quote about her being kept as if she had murdered someone, when I was 14 and I almost cried. It was the moment that awakened me for wanting to fight for people's human rights for this issue or freedom for midwives but also for human rights in general. Which is why I am writing about this subject. I am not the only one who was outraged after her arrest, 600 people protested outside the prison in Budapest for her release and then a few days later more than 2,000 people made a human chain around Hungary's parliament and the court. There were other reactions around the world. Thousands of people came and sang outside of her prison window on her birthday, and a documentary called *Freedom For Birth* was made in the UK and released globally. There were reactions from midwives and

human rights activist all over the world. Newspapers like *The Huffington Post* and *The Guardian* all published articles about and for Agnes's freedom. But hardly anything changed.

Although globally people were enraged, the Hungarian newspapers and government did not react in the same way as the rest of the world. The newspapers and the media of Hungary came up with everything bad they could say about her. According to Agnes herself they put quotes in the newspapers saying bad things she had never said. The Government made no response and her case kept getting put off from the day they originally said it was going to be. Every time there was a hearing they would usually not go Agnes' way and nothing would get resolved and a new hearing would be made that would sometimes be sixths months later.

One thing did change, however. A Hungarian mother who was enraged about the home birth situation in Hungary made a change. She was pregnant and was worried about having her second child at home but also did not want to go to the hospital. So she went to a court in Strasbourg and made a case against Hungary for violating the right to respect private life as guaranteed by the European Convention of Human Rights. She won, they said she was right and the laws would be changed. This led to the passage of a new European law which says that a woman has the right to choose the circumstances in which she gives birth. So now if a women in Hungary or anywhere else in the EU wants to have a home birth they have the legal right to do so. (Most of the above information about Agnes Gereb was gathered from the Documentary *Freedom For Birth, 2012*, Agnes herself, the articles on Agnes Gereb on the Huffington post, the Guardian and the wikipedia page an Agnes Gereb.

This story of a Hungarian midwife leads to a larger subject: the controversy around home birth. What happened to Agnes and the situation of home birth in Hungary happens in most places in the world. Most countries either frown on home birth, or prohibit it. Even in countries where it is allowed, midwives will have difficult times as you can see with Agnes and mothers will have a hard time finding a places they feel are safe to give birth. This controversy of home birth is not just one country's issue it is a global human rights issue. It is a problem of women not having a choice, in many circumstances of where and how to give birth and it is also a problem of midwives not being recognized to help women have a choice.

Why is home birth so controversial? Shouldn't a woman be granted the right to give birth where and how she wants? Unfortunately it is much more complicated then that. To understand how women lost their power and right to choose how and where they give birth, we must look to historical changes that took place during the rise of modern medicine in the West. The modern medical system replaced village midwifery wisdom and practice with obstetrics, using highly medicalized birthing models that treated pregnant moms like sick people, and initially causing more infant mortality in Europe and the U.S. than traditional midwifery practices did. Rather than work in tandem with highly experienced midwives, the obstetric system criminalized and discredited midwifery as a whole. Midwifery has only marginally recovered from discrediting in only certain pockets around the world. This rupture has led to huge problems for women giving birth around the world.

Women have been prosecuted for being midwives since the fourteen hundreds and even before. When we hear of the witch trials we know that many of those women who were considered witches were midwives. These so called witches or lay healers were the healers of the people and the midwives and doctors for the women. When medicine came around around the 14th century and the church became powerful, 50,000 to 100,000 women were killed between the 14th and 17th centuries. (*Witches, Midwives and Nurses* 2010, 14) These women understood the human body very well and used medicinal plants to heal but they also followed pagan traditions of believing in multiple gods and listening to the earth and plants which made the church against them because the church only believed in Christianity and was opposed to any other religion. As the book *Witches, Midwives and Nurses* states “witches represented a political, religious, and sexual threat to the protestant and catholic churches alike, as well as the state.” The reason was that they held different beliefs, and they showed power when women were supposed to be housewives and because they were smart and women were not supposed to know more than cooking and raising a child. These women also would have underground organizations where they practiced their pagan traditions and taught each other their medicine. The church wanted everyone to abide by their rules and ways and these women showed sides that went against the church rules. (Information in the above paragraph from *Witches, Midwives and Nurses*, 2010) Women in general were blamed for lust, birth control and abortion. They were said to only be the vassals of the baby for nine months and in those nine months the baby was very unprotected. (*Witches, Midwives and Nurses*, 40, 41) So of course the lay healers knew better than this and were trying to protect these mothers and babies and were not ashamed to be women.

In the 14th century when medicine came into Europe it was rare and only upper class males were allowed to use it. A big problem with this was that the church controlled much of this and so the medical theories were surrounded by church superstition rather than being realistic. Some famous scholars of the time like Francis Bacon and even the Church admitted the lay healers were better but then these women would be blamed for curing people because they were smart. The church did not care though, whenever the poor came to them because they were sick the church just sent them away and told them they had sinned and would have a better life next time around. (Above paragraph information from *Witches, Midwives and Nurses*, 16, 45, 51, 52 & 53)

When the obstetrical forceps were invented and men could now control not only health but birth, we lost all touch. Women revolted, even upper class women but they were just blamed for using old superstition. So the gender issues of the 14th through 17th centuries completely took away natural birth. For centuries these new ways of giving birth were awful. Women were taken into these hospitals and not taken care of. Most of these men had no idea what they were doing and so many times would experiment on how to get the baby out best. It was a really bad time for birth. Women could not even try to get into the system because women were kicked out and not allowed in universities no matter how rich they were and a person without a license could not practice. (Information in the above paragraph from *Witches, Midwives and Nurses*, 2010)

This carried on into the US where there were no witch hunts but women healers' rights were also taken away. Before the 1800's in the US we had women healers and it was common to

have birth at home. Then a new fashion came in for having “doctors” at birth. These doctors were very untrained because medicine was a very new thing but the upper class liked them. This was mainly the case in the US but around the world I am sure it was a similar situation. Even though the common people cured more people it was fashionable to have your baby with a male obstetrician. Unfortunately the upper class controls everything so the common healers were soon kicked out and only learned doctors could help people. As in Europe these obstetricians experimented and knew nothing and it was a big disaster as to how women were treated. Women were told pain in childbirth was Eve’s fault which was an idea that came from the Church. Women were given the twilight drug which made women lose self awareness and have no control so they had to be strapped to beds so they wouldn't do something stupid. The infant mortality rates rose greatly because poor had nowhere to go.

Women tried to go to school, they tried to teach women to not be ashamed of their bodies but they were always in some way or another pushed away. Women were even physically attacked for trying to be doctors. The few women who did make it to the top betrayed the natural system in fear. Elizabeth Blackwell for example said midwifery should be ended. Most likely though she was trying to fit in and get to the top because she knew that advocacy the other way would get her in trouble. (Midwives, Witches and Nurses, 77)

Here is an example of how women were pushed out of schools. When wealth flooded into the US from the oil and factories a man named Flexner went to all the medical schools and decided whether they should receive some of this money or not. Most of the schools that supported women and African

Americans were not given money so they went out of business or were shut down. Now the doctors had no more competition. So women had a very hard time coming back into power. In the hippie era of the 60’s and 70’s midwives started taking control again so obstetricians now began to have competition. Although Obstetricians still have most of the power their competition is starting to rise with midwives starting to get more popular. I believe part of the reason Agnes was imprisoned and many other midwives are imprisoned is this competition. So I believe it important that we look at how the suppression of midwives started so we can study how to work with this competition and help it to be choice not competition. (The information given in the last three paragraphs is from the book *Witches, Midwives and Nurses*, 62-84.)

With this look at how midwifery lost its power we can look at what is happening now in our modern society with midwives. Obstetricians gained power in the 1700s and midwives have never had a place in the health world since. Some of it is because of competition and much of it is just different beliefs and different knowledge. Midwives have a very hard time making their voices heard when not many of them have a place in the health system and when the ones in power (obstetricians) frown upon them. Something else that often makes people shy away from midwives is death. Death in childbirth is often used as one of the chief arguments against midwives. Many people believe that home birth is dangerous and that more babies die in home birth than in hospital births. Part of the reason that it is believed is in a home birth situation the interventions we now have in hospitals, cannot be used to save a baby in a bad situation. The truth is though that most mothers and babies are healthy and do not need those interventions. If the mother and baby do have a problem

usually the midwife will advise the mother ahead of time to go to the hospital instead or if complications arise during the birth then the mother is rushed to the hospital right away. So many people overlook how safe home birth usually is. The problem is the statistics that say that home births result in way more deaths than hospital births are almost impossible to get. The reason being obstetrics and midwifery are so against each other. So each side comes up with different statistics and it is hard to know who is right and very hard to find someone who hasn't picked a side and can actually get the true statistics.

I keep talking about home birth being so important but why is it? Why does it matter if midwives have a place and that women should birth at home? There are many things that hospital births lack that all mothers should have and midwives know very well how to take care of. . First of all midwives support the mother through the whole pregnancy process. They talk to the mother months before and help her through her pregnancy becoming her friend and preparing her not to be scared. During birth they let the mother be in charge and lead her own birth making it the best experience in her life instead of the scariest. Our culture and many women think and experience birth as scary which is very unhealthy and unnecessary for the mother and baby and midwives work to take away that fear. Midwives also argue that the interventions used sometimes are unnecessary and that the way doctors have mothers birth on their backs does not make sense physically. The last and biggest argument which is starting to get more and more proof is long term health. There is new proof that our species as a whole may be changing and getting sicker because of the interventions during child birth. So how does all this modern thought about what midwives believe connect to each other? What are the modern big

differences about home birth and hospital birth and how can we change them? What do the hospitals do that disagree so much with natural birth? (Information about midwives from the documentary *The Business of Being Born*, 2010)

As we all know hospitals have improved over the last decade and are getting better each year. Obstetricians are vital and save many babies and mothers' lives. C-sections and the other interventions that we have are very important. Everyone knows this and even if midwives are against intervention they also know that sometimes interventions are necessary. Unfortunately the interventions being used sometimes is turning into always. Besides the necessary use of interventions for child birth many bad things happen in hospitals for unnecessary times. As hospitals are safer intervention rates have been rising.

What hospitals are doing makes sense. It is easier and safer for doctors to just use these interventions. In hospitals a lot of the time the mother is given a certain time in which the doctors expect her to get to a certain point of her birthing process. If they see that the baby is not coming out fast enough they will speed up the process. The way they do this is giving the mother oxytocin to speed up the contractions. In many cases this will make the mother have a bad reaction (pain, rash, etc.) and so they must give her another drug, usually pain meds. Then they will have to give you more oxytocin and then your contractions will be really bad. These contractions will be so unnatural and fast that the baby will go into distress mode and so they have to do a last minute C-section to save the baby. Then they will tell you they saved your baby's life by giving you the C-section when in the first place if they had given you time your baby never would have been in danger. This is not

every case but this is an example of a common thing that is something that is done in hospitals. These are not the only problems with these interventions. When all those drugs are given to the mother they are also going into the baby. Babies are very vulnerable at this point at birth and these strong meds can weaken their immune system in the long run or cause even bigger health problems later. Which is a new science that is developing and more and more science research has been done and is proving this.

One thing that is very different about hospital birth and home birth is the way doctors have mothers give birth. Women will be put on beds on their backs with their feet up in forceps. In our society we may think this is the right way to do this but if you think about it it does not make logical sense. The reason being women are forced to work away from gravity in this way the other reason is being this position makes the pelvis smaller. So these women are being forced to push the baby up and through a smaller hole. Naturally women should be squatting or standing so gravity can help bring the baby down and out and their pelvises can expand. The other problem with having baby's this way is the mother is not capable to move around very well. So if the baby is having a hard time coming out because it is in the wrong position then nothing can be done about it. If a women is standing moving about the baby and mother can move and naturally re-situate the baby so that it can come out.

The biggest reason doctors have women give birth on their back is for their own convenience because having the women on the table makes it a lot easier for them. C-sections and most interventions are the same story; in many cases doctors will just do them because they are safer and the doctors are afraid

of being sued. Our system especially in the U.S. will get you in so much trouble if something goes wrong that it is a better bet for the obstetricians future if they use a safe intervention. In fact many of these obstetricians never see a natural child birth before they graduate medical school so no wonder they are scared to do anything without intervention. In many cases women have also said they hardly know or sometimes do not know at all the doctor who delivers their baby. The women will meet with a obstetrician before hand for one appointment but sometimes things will change the doctor will be busy at the time of the birth and she has another doctor she doesn't even know the name of. So do these obstetricians really know what they are doing? Yes they know how to save lives but are there other important things that scientifically and professionally they should know that are forgotten in their practice? (The information from the above four paragraphs is from *The Business of Being Born*, 2008)

To try and understand the hospital side better let us look at the midwife side. What do midwives know about birth and what do we as a culture not know about birth. Many women believe that midwives just show up to home births with a little towel and hope that the spirits will save the baby. They do not understand that a licensed midwife has most of the equipment hospitals have in case something goes wrong and that they are very learned and smart medical people who know what they are doing. Our society is shown that birth is painful and scary. Every movie you watch the women are screaming and scared so we do not have a good model to follow. Most celebrities have scheduled caesareans like it is just another plastic surgery of theirs. In fact in some hospitals a lot more cesareans will happen from 4 pm to 10pm because it is the most fashionable and convenient time to have a baby. (The information provided

above about hospital birth and obstetricians is from the movie *The Business of Being Born* (2008) and the book *Your Best Birth* (2009)

What these women do not realize is that by just having this small surgery they are jeopardizing their baby's health. There is more and more proof that babies born by C-section, with antibiotics, oxytocin and formula feeding, have a high risk of later of non-communicable diseases. They have a risk of getting a weak immune system and developing diabetes, celiac disease, obesity, some cancers and many other non-communicable diseases. Our bodies are 90% microbial. These microbes are the good and bad bacteria that protect us. In the weeks just before the baby is born good bacteria start going through the mothers body preparing to move to the baby through the birth canal and right after when mother and infant have skin to skin contact. Researchers believe that the babies micro biome gets seeded in the mothers fetus with the mothers microbes. These microbes contain bacteria that tell the baby what is good and bad and then their immune systems can be stronger to protect them for their whole lives. This is called seeding the micro biome and is essential in making us healthy. We must have a diversity of these microbes in order for us to have a healthy immune system. It is estimated that our species has lost a third of the diversity of the microbes. The scariest part of this all is that it might be epigenetic meaning we may pass this down generation to generation. So if we have children with interventions that end up being weaker it could pass on generation to generation and change and weaken our species entirely.

As I mentioned before C-sections and other interventions like synthetic oxytocin (pitocin/syntocinon), antibiotics and

formula feeding are part of our problem. Most diseases in babies who are born by C-sections are immune system related and the micro biome is what makes our immune system strong. For babies born like this everything gets intervened with. If they are born by C-section they are not covered by protective bacteria but they are brought into the world into the bacteria of the hospital and everything around it. If there are synthetic interventions then these drugs will mess with the good bacteria the baby needs. The other problem is is that after babies are born in hospitals they are taken away from the mother and not allowed to breast feed right away. Breast feeding for two whole years gives many very important microbes to the baby and will help its immune system be strong. Many mothers think formula feeding is just easier and will skip this whole important process. So not only is the immediate skin to skin contact taken away but the the breast feeding is not introduced soon enough either.

Non-Communicable diseases are already at epidemic proportions and are growing continually, according to the World Health Organization. These diseases create the most deaths in the world and the World Economic Forum predicts if this rate keeps going up it will bankrupt the global economy by 2030. C-section rates just keep rocketing: in the UK it is 1/4 of births, in the US it is 40%, in China 50% and in some parts of Brazil over 90%. It keeps on rising, since 1996 it has risen 46% in the US. (The information in the last three paragraphs was taken from the documentary *MicroBirth*).

So not only are we sacrificing our species' health but we are bankrupting ourselves too. So now let us look at the other side. Does the argument of the obstetrician justify to all of this. according to Michelle Goldberg, "The home-birth movement

seems to be driven by a quasi-religious naturalist ideology that denies the danger that's been inherent in childbirth for most of human history. It cherry-picks studies, distorts facts, and attacks its critics in a way that reminds me of my many years reporting on the Christian right." Says. Goldberg writes about home birth in an article referring many times to Dr. Amy Tuteur. Tuteur is an obstetrician but now mostly works on writing articles against natural birth. She has her own website called "the Skeptical OB." This is a place where she invites any mothers who have had a lost a baby in home birth to write down their stories. So Tuteur has many stories of babies who died in home birth to try and make a point about its dangers. These stories are heart breaking and make any vulnerable person who knows nothing about home birth never want to have a baby at home. Tuteur also puts up statistics about how many babies are dying in home births. She claims she has proof that many more babies die at home then in hospitals.

Many other articles of hers are about breast feeding and other aspects of home birth. She says babies should not be allowed to breast feed or have skin to skin contact after a birth because there have been many cases where mothers are so exhausted from the drugs and birth that they fall asleep and either the babies get suffocated or even sometimes dropped. With this she loses the point though. In a natural home birth setting a mother is usually very energetic after she gives birth. Mothers say they feel a kind of high after vaginal birth. Second of all these mothers are not on meds so they are not knocked out by those and third of all the father and or friends are always there constantly to support the mother. So instead of leaving a mother and baby alone, there should always be someone there helping them is what Tueter seems to miss.

The other thing about Tueter's statistics is that she tries to use is that they are very hard to prove and are complicated so it does not seem right to say they are black and white facts. Obstetricians and midwives have such different views on birth and are very much against the others' beliefs that stories and statistics get made up on both sides so it is impossible to see the truth. It is really hard to get someone who is in the middle and not on either side to look through data and come up with the straight facts. The other thing is a baby's death in a hospital is a lot easier to hide because the hospitals have a lot more power and money to keep those hidden. Midwives are always being sought after for doing something wrong so whenever one birth goes wrong it is a huge deal just like in Agnes Gereb's case.

If you look at the Skeptical OB you will see that Tueter tries to make every little thing that home birth has seem stupid. For example she talks about how ridiculous it is that women think they have power during child birth. Here she is just shouting out one of the biggest problems with our system: feeling of fear and powerlessness. In a home birth setting midwives will tell the mother she is in charge she is the one doing the work and they are just there to help. These women including my mother will relate their stories as the best experience of their life. The moment when they felt like they were able to overcome their worst pain their worst fear and be powerful. Tueter says women should find power in money and success but does that come with nine months of constantly taking care of something of going through the worst pain of your life and receiving something more beautiful then money could ever come even close to? How can a women feel more powerful then being in so much pain feeling like she can not do it and then letting that feeling carry her through into the power of lasting through and

doing it. She brings a whole new living being into the world. What can possibly be more empowering than that? Teuter seems to miss the whole point again. Her points make me wonder why she even cares about birth. I looked all over for more arguments against home birth but she was the only one who tried to have some argument behind her point.

(Information from the website the Skeptical OB, an article called "How To Scare Women" in *Slate* and an article on the *Daily Beast* called "Michelle Goldberg Answers a Critic's Distortion of Her Home-Birth Argument.")

It is so hard for me to understand though where Amy Teuter and the Obstetricianists come from sometimes. So many women have stories about how they felt raped in hospitals. Many doctors will take advantage of women being weak and will just tell them your baby is in danger unless I perform an epidural or C-section or give you this drug. Of course mothers will listen because they want everything good for their babies. Other times mothers will say they don't want things and the doctors will force it on them. There was a case in 2005 where a woman was made to sign a waiver saying the hospital could perform anything on her if needed but she did not consent to a C-section. When the birth came near they told her that if she did not consent to a C-section they would report her to human services. She did not need a C-section and she refused one but the child services came and the hospital told them she had abused her child before it was even born. This woman never got to see her baby again, she never even got to take it home. Cases like these are endless, some cases women will be having a baby at home and the police will show up at the door and take the mother go to the hospital in the middle of her birth. (Stories from the Freedom For Birth Facebook page and the documentary Freedom For Birth, 2012)

Another big problem which I only mentioned in the beginning is our health systems. Each country is different and each country has a different way of dealing with it but many of the main concepts are similar. Most of the health systems and even health insurance systems are run or advised by obstetricians so they all end up frowning on home birth. These systems and obstetrics also have a lot to do with business and are run by money. Both with insurance and health systems this makes it very hard to be a midwife or even just have a birth center. If you have a birth center then many insurance companies will not support you or even if your a mother your insurance may not support you having a home birth. The problem with the health system is that obstetricians and midwives cannot work together because midwives are so frowned upon. Midwives and obstetricians must work together though. Not all births will go perfect and so midwives should be able to have a health system and hospital who will support them if they come in in an emergency situation. Some countries like the Netherlands are better at this and the midwives and obstetricians are more involved with each other and the midwives have hospital access and ways to work with the hospitals. (Information provided from the documentary the *Business of Being Born*, 2010, and the *Slate* article "How to scare Women.")

So how can women make themselves heard and how can we make birth a better choice and not such a controversy? I believe it must start by common knowledge and from the women themselves. Until more women are informed and more women take power not much will change. We cannot just go to the health systems and tell them their wrong or to the medical schools and obstetricians telling them their wrong. First of all it

is not true that they are completely wrong plus they will not listen like that. We must advertise the information *MicroBirth* has to offer us and make that voice be heard to the obstetricianists. We must find a way to work with them. Midwives need to be let into the system so they can feel safe and teach the obstetricians what they know and the obstetricians can help the women who want C-sections and the ones who need interventions. In general though like this women can be more informed. If they are more informed we can have more happy women in power of their bodies and children and we can have more healthy and happy children growing up in our world. Let us be more informed, stop jeopardizing our species health and let women have the right to choose.

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Alex Berg

Women in World War II: How the War Changed Their Lives for the Better

World War II was one of the most influential occurrences in 20th century history. It changed not only the nature of war, but the nature of countries and their relationship to each other. Maps were redrawn and cultures torn apart. Countries like Germany and Korea were physically divided, while that cold war divided the world into political camps for or against capitalism. The collapse of the European economy and the rise of the American economy led the to spread of the free market and globalization of the world economy.

Arguably, one of the greatest changes effected by world war II was the shift in prescribed social roles. Especially on the home front in the United States and other participating countries, the respective roles of men and women, and their relationship to each other, began to change.

In order to meet the needs of the soldiers overseas, factories producing weapons and other wartime machines began to pop up around America like mushrooms in a rainforest. However, as more and more men were called away on the draft (any male between the ages 21 to 45) it quickly became evident that a new source of factory workers would have to be tapped. In June of 1941, FDR passed executive order number 8802, banning any and all racial discrimination in the work place. But more importantly, there was a massive effort in the media and by the government to encourage women to leave their places in the kitchen and join the active workforce. They were told to become career women, after decades of being told that such a thing was only for men.

During the 6 years that the war raged, women, along with minority groups traditionally withheld from such jobs,

were asked to enter into the workforce and into the military. By 1943, 17 million women made up one-third of the American workforce. About 5 million of them worked in defense



factories supplying the troops overseas. Most jobs were found in so called 'defense factories' which focussed on building and supplying weapons and other goods for the battle field.'Rosie the Riveter' a popular propaganda figure of the time, was a

strong, bandana'd women riveting a plane. This image would become one of the most effective pieces of propaganda in history as it shaped the cultural expectation of what it meant to be women during WWII. It helped encourage women that they could be strong and beautiful, women and factory workers at the same time. As the shortage of male workers grew, women found jobs cropping up all over the place. Not only factory jobs, but management positions within those factories as well as positions in everything from the post office to the FBI



started opening up for women. A common slogan of the time read, "Women in war: we can't win without them." Propaganda promised that women could be soldiers at home

and help tip the scales of war by participating in the war time economy.

There were several other agencies through which women could contribute to the war effort, each of which was more directly involved in the battlefield. They could become nurses in the Army Nurses Corps, which was the most common options, an officer in the navy's WAVE division or a WAC in the Women's Army Corps. But the majority of women stayed stateside to engage in work on what was referred to as the home front.

Women flocked to these new jobs in droves, (about 2.2 million women worked in defense industry alone). Not only were they caught up in the patriotic fever to support the war effort, but these new jobs offered better pay than anything they had ever had access to before and gave them the ability to support themselves and their own future financially. Besides a higher pay grade, these jobs gave them an emotional promotion. These were jobs that could not only support them personally, but help support the war as well. These were jobs that offered them power.

Because of their tendency to cluster along the coastlines, many people were forced to pick up roots and move in order to find work. Due to wartime rations on oil and rubber, this could be quite a challenge. Especially for women, who had been previously discouraged from traveling, it could be quite an adventure just to get from one major town to the next. Carpooling became common, while trains were crowded to the bursting point. Though the majority of women who travelled were following their husbands as they were stationed across the country, many picked up roots by themselves in search of work. One woman made it from one coast to another using a combination of carpooling, train, a last minute plane ticket and a final run on a bus. Another women, Mildred Admire Bedell,

made it from Missouri to California with her three kids on the train. Because priority was given to trains mobilizing troops, they were often placed on side rails to wait for hours on end before they could get back en route. However, a general sense of camaraderie let her pass the time playing poker with some young men on board. The internal mobilization of America was more important than just the increase in the urban coastal population. It also brought people and ideas in contact with each other. People were introduced to regional differences which they had never been aware of before as their search for jobs brought them into contact with places and people they may never have found otherwise. The diversity of America was discovered for the first time by many of its inhabitants. This helped to blur not only regional lines, but color and social lines as well, all of which contributed to the acceptance of the new players in the work force. Namely, women and minority groups.

The incident with Mrs. Bedell on the train with the young men also highlights another very important aspect of American society during the war. In the face of the common enemy of the Axis Powers, Americans found a renewed sense of identity within their nation. There was created a kind of bubble, which allowed a certain ease to the transition of women and minorities into the workforce. Though they may have been previously considered second class, during the war, the only thing which mattered was that they were American. Though women still found certain prejudices among the men, they also experienced a degree of respect and a general shift in attitude towards their capabilities. Dee Davenport Callahan, a young woman traveling with her infant child, found nothing but kindness and support from her fellow train passengers, even though a few short years ago the idea of a woman

traveling by herself with her baby would have been considered with suspicion and criticism at best.

For the most part, women met with acceptance in their new work positions. It helped that they were often in the majority during the height of the war. There were also often sympathetic male co-workers who were willing to stand up for them. But issues of sexism and harassment were still present. When women experienced discrimination from their bosses, or when they were told by threat of being fired to give sexual favors, they could find a friendly male employee who would help them. As was the case with Florence Stoll Protte, who worked at the Ametorp Company in St. Louis. When her boss threatened to fire her if she didn't sleep with him, she went to another employee who helped her keep her job without having to agree to the boss's terms. Other women, like Phyllis Kenney Skinner, found it within her to stand up for herself. When the boss at her factory made advances on her, she threatened him with her rivet gun. After that she was always treated with respect and the proper distance.

Even between women there were certain lingering issues that got in the way of their jobs. Racism was far from over, and cases sprung up all the time where white women would refuse to work with blacks of any gender.

Despite these tensions, it was very rapidly becoming apparent that women were capable of contributing just as much as the men before them in the workplace. And they were certainly aware and enjoying the sense of power which came along with this awareness. Geraldine Amidon Berkey went through several wartime jobs as she continued to move around the country in order to stay close to her husband who was attending officer candidate school. Every time she moved and had to find new work, she was adamant about only taking a 'mans' job. She fought hard to always be given work which

previously might have been denied, simply because she was a woman. Mrs. Bedell, who before the war was certain she would never be capable of earning any significant income, made sure to never be without a job even after the war ended, nor did she except the low expectations about her sex since.

On the surface, the war proved some fairly basic facts: that women, even when not directly in the line of fire, hold important positions in their societies during times of war, and that during such times they can rise to not only meet but far surpass any expectations of their capabilities. They were able to excel at heavy duty manufacturing jobs as well as management and leadership positions despite what all the prejudices said. However, perhaps the most important idea that the war implanted in the minds of Americans was something far more subtle, yet much more powerful, than one might expect. Though the war may not have changed the outer life of women all that much, the effects it had on their inner life, and their personal relationship to their country and their men, were stronger than anyone might have imagined. In order to see these changes, it is certainly important to look at the war and America in the war, as a whole picture, to pull together an image of what it was like before and after and during the war and trace the broad and long lasting changes which reshaped America. But it is also necessary to look at the women themselves. To hear the story in their words and see it from their eyes in order to get the personal version of what happened at home while the boys went to war. (The memories of working during the war stayed in the minds of the women and their children, and eventually found expression in the feminist movements of the late 60's and 70's.)

To begin grasping this picture, we must start by taking a look at pre war America. The Roaring Twenties with its decadence and growth, went out with a bang when the stock



market crashed in 1929 and left the United States reeling under the effects of the Great Depression. At its height, about 13 to 15 million Americans were unemployed and desperate for any scrap of work. In an effort to keep jobs open for young men, women were actively discouraged from taking jobs outside of the household. Twenty-Six states had laws prohibiting the employment of married women. At the same time, as money disappeared from their pockets, they were unable to pay for any of the labor sparing appliances which had begun to make an appearance. The typical women of the 1930's lived much

like her ancestors had before the turn of the century. Household chores grew to include canning food and sewing clothes for the whole family. As such, she became the nucleus of the domestic world. Popular culture showed women as strong and capable, as long as they stayed within their assigned roles. One ad offered a view of the kitchen as “a women’s only refuge in a world gone berserk.”

The few jobs available to single women were low grade and “dead ends”, meaning there was little to no hope of promotion. Typical jobs a woman might have had before the war included secretarial work, teaching or nursing. For women of color, it was often restricted to maid work in a kitchen or as a laundress.

These restrictions came from two fronts. The public policy front, which wanted to keep jobs open for men, who were still considered the more capable and proper breadwinner, and an emotional front, which wanted to create a stable family during the turmoil of the Great Depression.* During war, a similar thing happened. Women were asked to take up the role of embodying the country’s best values in order to become symbols for the nation. This kind of idolization can have various effects. It creates a kind of bias against women. In order for them to be something worth fighting to protect, they have to be weak enough to need that protection. They are also often kept to traditional patriarchal ideas of feminine qualities. For example, analyst Tsjard Botta points to South Africa, where women have been officially labeled as ‘mothers of the nation’ but their participatory role in political or ideological discourse is still confined primarily to topics such as motherhood and housekeeping, which are considered traditional women’s work. This kind of sentiment enforces gender stereotypes of men as warriors and women as nurturers, which can put up all kind of barriers against women

joining the military or government. On the other hand, it places huge responsibility on them to be the sole carriers of their culture as long as the men are gone fighting. The question remains, how do the women react to these assumptions? Do they willingly rise to meet the challenge, or do they take them up begrudgingly? Specifically during world war II, did they accept their new jobs solely out of a sense of patriotic duty? Or did they take them because they needed them, and no other reason than that.

One woman, Dolores Kelsey Sorci, was running errands when she heard about the attack on Pearl Harbor, “...I got real patriotic and thought, ‘I’m going down there to town and sign up for work.’ Though it took awhile for her acceptance forms to come in, Dolores quickly found herself in the thick of it, doing her part for the war effort. Other women like Lucille Gray Rogers just wanted the job in order to keep it open for her husband upon his return and to make good money at the same time.

Though their personal motivations for joining the labor force were very different, the fact that they both took up these challenges with courage and enthusiasm is something they held in common. Their new role as women in war turned them into a symbol for victory. They were soldiers without guns. And whether or not they took up these posts out of a patriotic spirit or out of necessity, they certainly made the most of what they were given. The pressure of their new posts, rather than weighing them down, gave them a period of freedom and experience which changed their preconceptions about their worth in work for the rest of their lives.

Feminist scholars such as Nira Yuval-Davis and Floya Anthias have demonstrated something which they describe as “women as biological reproducers of group members” as an example of how gendered nationalism can manifest. During

times of war policies are often enacted which either block access to birth control and abortion or reward women who have more children. Physically, as long as women are primarily responsible for caring for their children, they do not have the time to engage in political affairs.

Sadly, this attitude was not enough to keep the women in their new positions after the war, when their country's need for them ended. As soon as peace was declared in the spring of 1945 and the men started returning home, the media, sponsored by the government, began a new campaign at complete odds with what they had been pushing during the war in order to drive women out of their jobs and back into their previous roles as dependents. Though there was no specific policy created, in 1946, 4 million women were fired from their jobs. Those that remained were met with more and more open hostility by their male coworkers. As they became once more the minority, the warm feeling of camaraderie and acceptance during the war began to disappear. On top of all the old prejudices, women were accused of stealing the jobs meant for the returning service men when they refused to give up their hard won work. Ironically, the number of women employed outside of the home went up after the war. Despite all effort to the contrary, women had now become accustomed to being breadwinners alongside their husbands and many were reluctant to give up working, even if it meant having to return to less paying 'women's' work. The rise in the standards of living also meant that it was no longer enough for just the man to earn an income.

The war years had also seen a rise in divorce rates, not to mention the death toll which had left many women widows. Single women, especially if they had children, had no choice but to stay in the workforce, in one way or another. Though there were certainly those who were happy to return home and

jumped at the chance to quit their jobs and spend time with their children, many women struggled against the push to give up their independence.

Much like the thirties were a regression from the progress seen in the 20's, so did the post war years go back on a lot of the changes it had made in regards to women. Less women attended college during the 50's than in the 1920's. Though the number of female employees went up, most of their work was simple and low wage. In media, women were either portrayed as the polite and docile girl next door or as a sex symbol like Marilyn Monroe. This was a change from the dutiful yet fully capable and intelligent women of the 30's and 40's, and even further from the fiery ladies of the 20's. As Americans grew comfortable with their renewed economy and society fueled with victory and the spoils of war, women became less and less necessary, and were therefore asked to step aside more and more for their male counterparts. Ironically, much of America's developing consumer society was in part fueled by the financial savings of women employees during the war. Because part of the allure of a war time job was its high pay rate, many women were earning substantial salaries doing what might be today considered low paying jobs. But as the nation was still recovering from the great depression and the majority of industry was focused on supporting the war, there wasn't much for them to spend their money on. They squirreled much of it away until after the war, when the true spending spree started. As the men returned from overseas, women used their funds to buy up houses in preparation for starting a family. Cars became more and more popular as rations on oil were lifted. Along with the new house, came a rush of new appliances to fill them. Washing machines and electric cooking appliances as well as a hundred other gadgets meant to speed up household chores or to

entertain the family gave the American home a whole new look. The first few years after the fighting, as the men still struggled to get their feet under them in civilian life, it was often up to the women and the money they had saved to supply these things.

All of this added up to create a very duplicitous reality in 1950's America. It also illustrates a very interesting pattern of the time, a kind of seesawing back and forth of society. As America experienced some of its most extreme ups and downs right after each other, it also shook several things loose which had been simmering in the pipes for a very long time. Besides the civil rights movement which took place at the end of the 60's, the post war years also saw a lot of old prejudices against women reformed and fought against at the same time. The brief push towards independence during the 20's, and the more formal push during the 40's, combined with the backwards trend of the 30's and 50's, brought up a certain tension in society which helped fuel the subsequent movements in the following decades.

This is just one the ways in which the war helped shaped society. In this case, it shaped it for the better. In a somewhat confusing turn of events, the war brought a certain sense of stability and order to a country just starting to find its legs after a devastating crash. The war gave America a purpose, which helped refuel the push to pull itself out of its economical crash. On a more personal level, the war took away the traditional structures which had supported and confined women and minorities for decades, and gave them new opportunities and experiences.

This simple gesture, no matter how transitory it was, had the effect of being a precedent and symbol to later efforts for equality. Because the majority of women lost their war time job after the fighting was over, the numbers may not look that

impressive, but the idea that women were not only capable but could also excel at "mens' work" was firmly proven. It cemented the idea that women could and should reach for more then what was handed to them by their male dominated society.

"What I learned from my mother, and I think she learned this sitting up on that crane, was that being afraid was not a reason not to do something....And if something had to be done, she wouldn't say 'oh, I'll wait until my husband comes home and he'll take care to it.' She would take care of it." Jane Arelene Herman was born in 1948 to Jennette Hyman Nuttal, who worked as a crane operator during the war. Jane is now a medical researcher and political activists, and she credits her mother and the strength she showed during the war for being the one to inspire her.

This concept was submerged during the conservative push of the fifties, but was by no means extinguished. In the yearly sixties, women made up less then 38% of the American workforce, and the jobs that they did occupy were largely limited to teaching, nursing or secretarial work. Their wages were once again substantially lower then their male counterparts, as were their chances of promotion. Legally, they had very little right to what earnings they did make, and much of their property was handed into the control of their husbands after marriage. Divorce was available, but difficult to obtain. However, many of these women had been children with mothers working full time during the war. They remembered the possibility that women could hold an equal place in the economy. The late 60's and 70's saw a push for equality in the workplace. In 1964, prohibition on discrimination based on gender in the work place was proposed to be added to the growing civil rights act. In 1966 the National Organization for

Women (NOW) was founded to help protect and fight for their legal rights.

It wasn't just the work place that was effected. Joyce Duncan Russell used her knowledge as a welder to become a sculptor after the war. Doris Casey Berringer became a painter after working as a window trimmer and Helen Filarski Steffes and Dottie Wiltse Collins helped fuel a interest in women's athletics after they played baseball for Philip Wrigley during the war. Socially and personally, the war had supercharged these women to be able to choose their own pathways in life outside of what was being offered them.

It can be safely said, however, that without the war and the demand it placed on the work place, women never would have been pulled in as fast or as sudden as they were. Though there were certainly certain sentiments already present and the idea that women might some day press for further rights and equality was definitely present, the prevailing sense in America and most of the world was that a woman's place was at home. The need for them during WWII let many societies forget their prejudice long enough to utilize them while they were needed, but notice how the sentiment very quickly changed once the need for them was over. The decades around WWII see a very shift change back and forth as far as women are concerned in society. With the decadence of the 20's, it was perceived acceptable to let women start foraying out into society in new ways, but the 30's saw women seeking jobs a threat and so pushed against it. Then the war needed the women, so called them back out to work. But true to the pattern, the 50's needed those jobs kept open for the returning men, so tried to push the women back out. The pattern which seems to develop through these decades is one where when women are needed, or when the economy is particularly productive and thus creating enough excess jobs, they are

asked to participate. But when jobs become scarce, they are in danger of stealing the jobs which rightfully belong to the men, and are thus pushed away. In fact, this pattern can be found repeating itself in varies ways throughout history. It has always been a general rule of thumb, that women of a certain class would be committing a high crime by attempting to work. Look at the regency period for an extreme example, where it was considered highly unfashionable for women of any social standing to even appear to be engaging in work of any kind.¹⁹ On the other hand, women of lower or working classes, have always been expected to carry a certain weight, and are therefor much more welcome in the workplace. This is perhaps one of the saddest part of prejudice, is that we are often willing to lay them aside just long enough to get what we need, and though this can have the appearance of acceptance, it goes right back to the old song and dance once the need is gone.

Though what happened during WWII certainly holds true with this pattern, it also broke from it just enough to usher in something new. Rather than the rise in America's economy or anything else, it was this change that proves that something good could have come from one of the greatest wars in human history. American women were shown that the conviction that the workplace was not for them was false at best, and that getting a job was nothing more then getting a job. It could be difficult to work through centuries of prejudice, but with the right amount of stubbornness, they could do it. When the 50's saw a push to get them back into the home, the number of women employed outside the domestic sphere went up. Since then, America has seen a steady expansion of rights and equality for women. Though it has certainly not always been an easy process, and there are still problems to be addressed today, the events around WWII certainly jump started the

process and helped speed up the full acceptance of women into the economic and social spheres of American society.

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Liam Erickson

The Adventure of The Hunt

I

The alarm goes off and I'm out of my bed in less than five seconds. Running down the stairs to wake up my Grandpa I am full of excitement for the day. Checking the thermometer I see that it is 15 below zero, I run back upstairs to add more warm layers. It is 5AM in northern Minnesota, and we are heading out to our deer stands on our neighbors' property, where we have hunted for years. Flurries the night before have left a light dusting of snow covering the ground. We pile into the truck, my Grandpa, Dad, Uncle and I, looking in our hunting gear like puffy orange marshmallows. As we head along the road to the spots we have picked, we can see the eyes of deer in the ditches looking into our headlights.

One by one we get dropped off at our spots before my Grandpa drives to where we park the truck for the morning. As I get out of the warm truck the cold hits me in the face with a burning pins and needles sensation. From the time I jump out of the truck, gather my gear my hands feel frozen through. However, I have my mittens packed full of hand warmers and as I start walking my body starts to warm up. When the truck headlights disappear over the hill, the only thing that is lighting my way is the big November full moon and my knowledge of the land, that I have played on since I was a young child. As I walk, I am trying to be as silent as I can even though the cold grass shatters under my feet like glass. I'm trying to move over the land like the morning fog, silent and persistent. I approach my deer stand outlined in the fog. It's a simple structure—a bed head board, a pile of wood and a piece of plywood all leaning onto each other with a few nails here

and there. Anything works for a deer stand as long as the hunters outline is broken up. This stand has been sitting in the field long enough that the deer don't take a second look. I sit down, and the cold metal chair starts to heat up under me. At this point I can make out dark objects moving around in the field. As the sun comes up your eyes play tricks on you as they adjust from dark to light: before your eyes, every rock or bush turns into a possible deer. The sun coming up over the Jack Pine and Birch forest warms up the northern Minnesota back country. As it warms my core and lights up my surroundings, I begin to fight the urge to fall asleep.

Then comes the moment I wake up early for, when all the animals are on the move, either waking up or heading to their beds. I see a few does out in front of me grazing before slipping into the thick woods until dusk, when they will return to graze again and get chased around by the bucks. Their behavior is specific to this time of year. We are in the middle of the rut, the season when many animals mate and fight for dominance.

The fall is probably the busiest time of year in the woods, and dawn is one of the most active times of day. On this morning, I see rodents and small animals collecting materials to last them through the freezing months ahead. Although there is not much movement due to the very cold night, I see a few rabbits running for the sake of staying warm. The birds are also moving; ravens, crows, chickadees, nuthatches and finches light up the morning with their chatter. High above, birds of prey such as bald eagles, red tailed hawks, ospreys and vultures fly around in circles; like me on the hunt for game. As I watch the birds, a coyote runs across the field in full sprint, chasing one of those cotton tails. He, too, is hunting. I feel in

my body at this moment a connection to this land and its wildlife. After all, hunting has been practiced by my human ancestors for thousands of years. Only “recently”—about 300 years ago— did the majority of people in this landscape stop hunting. As I sit in my deer stand, breathing the fresh northern crisp air and studying the wildlife, the word “simple” crosses my mind. This is a time to just be, nothing else. Connecting to my surroundings in this way, has to be one of the oldest feelings anybody can feel. I imagine my ancestors watching beavers the size of bears, mammoths and giant ground sloths, breathing the same air I breath. I feel connected to those ancestors as we together sit and watch the wildlife and the land, learning from and growing with the herds we so carefully study. I think to myself, how is this effecting me? Why do I feel like I need to hunt?

Since I began to pursue the ancient tradition of hunting, I have changed physically and mentally. Some of this is the natural transition from boy to young man. I have a strong belief that hunting is shaping the kind of person I am becoming. Why do I feel so attracted to the pursuit? Is it instincts that gives me such an interest in killing animals? Do I do it for the brain stimulus and adrenaline rushes? I want to understand this, and to do so, I need to ask a larger question: *What does hunting do to and for humans?*

If we want to know what hunting does to humans, we need to look back at the role that hunting played in the life of early humans. Hunting has been a part of human evolution in all times and places. Ancient hunting in North America dates back to at least 11,500 BC. Spear points from the ancient Clovis culture have been found in all locations around North America. From the information scientists have gathered at kill

sites we can see that early paleo-indians (the Clovis people) did in fact kill and hunt mastodons, camels, horses, and bison. Hunting these large animals was a group job, this brought the tribes together, they would have had to problem solve and create hunting methods.

This hunting culture was still in full swing when the Europeans arrived in North America. Hunting was not only a way to obtain food, but a basis for the entire culture, including its spiritual beliefs, sense of community, story telling, rites of passage, and fundamental sustenance. Their lives revolved around nature and hunting. They would move with the animals across the land. The boys would perfect the art of archery at a young age, so when they reached their teens they would be fit with the correct skills to be productive members of their hunting culture.

Hunting brought people together. A large hunting party would go out and travel across the land in search of game. When they returned from a successful hunt, there would be ceremonies celebrating the hunt and the life of the animals they had killed. And of course, there would be many, many meals and more celebrations using the meat. Hunting was their life, pure and simple. The Native Americans believed they were another part of nature. They were in tune to the animal world in a way that many philosophers say we can never retrieve. Modern humans have a very difficult time understanding the importance that many native peoples still place on hunting rights.

I can talk about hunting as being an ancient art, because, as we know, it dates back thousands of years ago. However, it was the way of living for many people just a mere 150 years ago. To

not hunt is a new thing. We are falling farther and farther away from the great understanding of nature that comes with hunting. Hunting is a much more natural way to get food, than going to a store and buying meat, which separates us as humans from our dependence on nature. I believe when we hunt now, we are reawakening our dormant natural side. I believe it brings us closer to understanding nature than anything else; it allows us to fall into our natural role in the ecosystem. Yes human ideas, perceptions, and values are constantly evolving. However the natural world that produced us remains as important as ever. We as humans forget this, at least I know when I'm in the city I get so tied up in everything that I almost forget that there is this whole other world just outside our concrete oasis.

Yes, there are many ways to visit nature: hiking, camping, mushroom hunting, etcetera. For hunters, we visit nature with the eye of ancient humans. We enjoy this rare privilege of participating in the natural process, rather than only observing from a distance or on a screen. We become a predator like our ancestors.

Hunting has changed me, possibly reconnected me to my roots in a way many people may never experience. My eyes are always on the look out for wildlife. I have noticed, as I am getting better at hunting, I am seeing more animals both when I am hunting and also anytime I am out doors. This is from gaining knowledge of the animal and learning its patterns and the terrain it enjoys, and also accustoming my eyes to notice smaller movements and changes in the land. When hunting, you are training your brain. I might look at the same hill for hours, memorizing it: every log, tree, rock, bush and stump. I will train myself to pick up on any change that takes place on

the hill, though often it is just a tumble weed rolling or smaller animals moving around. But sometimes you catch that flicker of a bedded down deer's ear, a turn of an antler, or a flash of an elk's white behind. You must train yourself to be in touch and memorize your surrounding enough to notice the small things. If you study animals you will notice that they are always on the look out, and notice every change before we do. The animals are the most in tune with the land and as a hunter I have to learn from them, study and notice all that my surroundings have to teach.

What does hunting do to humans? It allows us to go back in time, when we had time to connect to our surroundings. It brings us up close to nature, so much that we tap into being part of nature in a way many modern humans will no longer experience. Hunting allows us to carry on a dying part of humanity. It also works our brain in a very different way than we are used to in today's busy culture. You may not think slowing down is working your brain, but today it is one of the hardest brain exercises you can do. It wakes up all our senses and puts them into a high functioning mode. Hunting is what helped humans evolve to what we are today, and this evolution continues for hunters of today.

II

The moon shining through the truck windows wakes me early. I roll over and grab my phone hoping it is almost time to get up. I am disappointed to see I have only been asleep for two hours. I struggle to fall back to sleep, however the crickets and distant sound of cattle moo'ing lull me back to dreaming about the day to come. I dream about all the possibilities that could go down in the next 48 hours of time I have to harvest a deer. It

is the middle of October, we are sleeping in between a sheep yard and a horse stall. We are five miles into farm land, from the small town of Colfax, Washington. The weather is stable: upper thirties at night, sixties in the late afternoon. The hunting group consists of my father and four of my hunting buddies. We all worked our asses off in school the week before so that we could chase game for these two days. Right after school the day before, we loaded up and drove seven hours to reach this farm. Once we arrived, just before midnight, we ate only granola bars and beef jerky for dinner. When we all get up in three hours at 5:00 AM, we will have at least a mile walk in the dark to get to our spots. We picked out these spots earlier in the summer after carefully scouting the area, in exchange for helping the landowner stack his straw bales. We all fall asleep in a hurry in hopes the morning would come more quickly, but throughout the night, all of us continue to wake over and over to check the time.

Finally, our five hours of sleep ended with our alarms going off. Every body was up and in ten minutes we were dressed and talking excitedly about the day. Even though we aren't hungry, we force down food so that we don't have to come back early. Now we all split off with many, "good lucks" as we go our separate ways. Each hunter walks toward the spot he feels is the best. A good spot is an active spot...each hunter hopes for a lot of action.

Sticking together, my Dad and I head west, behind us the orange and red sunrise begins to illuminate the field. It is only bright enough to see outlines. The land is rolling farm land sculpted by the Missoula floods, and there is only one tree on the entire property. Most of the wheat has already been harvested, and the fields have just started to be disced and

turned for new crops. After a thirty minute walk, we finally reach the spot we had picked out. The area looks different then it did three months earlier during our scouting session, after a dry summer and fall. We can hear animals running away from us through the dry wheat stubble. We silently sneak into our spot and sit, waiting for our first sight of the white tail deer. It wasn't even ten minutes before I started to see deer move down into the valley below us. The deer come and vanish more quickly than I can follow with my eyes. The herd starts appearing from all sides, and my heart pounds ten times faster then usual. As soon as there is enough light, I get up and start to move slowly towards the five deer I spotted below me. Crouching down and crawling over the next hill, I hear a distant gunshot fired. I quickly get over the hill just in time to see eight deer run over a hill about a half mile out. I sit down in my spot and start trying to find the deer with my binoculars. No sign. I sit there for ten more minutes, then slowly get up. Something catches my eye—one deer standing 150 yards away on top of the next hill. I see that it is a buck, and I quickly get set up for the shot. This deer is quickly joined by two more, both bucks, and soon five more bucks appear on the hill. All eight animals are standing within 150 yards, giving me a choice among perfect shots. I have never seen so many bucks in one place. After I made sure I wasn't dreaming, I quickly picked the first deer I could get my sights on and squeezed the trigger. They all ran after the shot, and as they went up the next hill, I counted only seven.

This was the fastest hunt I have been on. I wasn't thirty minutes into opening morning, and I had already harvested a beautiful, healthy eight point buck. I saw about fifty deer that day and would go on to see well over two hundred that weekend. As I kept counting more and more deer, I starting to

wonder why the population was so strong here. What was supporting the health of these herds? Why was the buck to doe ratio nearly perfect (about one buck to every five does)? It certainly wasn't because there was no pressure from hunters. Everybody and their mothers were out trying to fill their deer tags. This made me interested in finding out what hunting is doing to the animal herds. Do hunters hinder the growth of wild animal herds? Can this be connected to the question of whether it is morally right to hunt? Does hunting help sustain a healthy herd? To understand this better, I needed to ask, *What is hunting doing to the animals?*

What is hunting doing to the animals, is a highly discussed question in our modern society, in the United States today this topic is split right down the middle. According to various online studies I did just about 50% of people today disagree with hunting and the other 50% agrees with it. And in the book *Hunting Philosophy For Everyone*, by Nathan Kowalsky I learned that out of the 316 million Americans, 35 million Americans hunt annually. There are many ideas going around about how and if hunting is a bad practice. Most anti-hunters like to argue that hunting is morally wrong, but in the preceding section looking at the historical factors of hunting, we concluded that hunting is ancient and very natural. However, historically hunters have also been responsible for animals going extinct or approaching extinction. Europeans participated in the fur trading business, beginning from the time of their arrival in the New World until the 1900's, when animal conservation came into play. The fur trade became one of the main economic ventures in North America, nearly wiping beavers, otters, mink, weasel, deer, elk and other fur bearing animals completely away. These animals have started to recover and are returning to their former healthy numbers. Conservation is

behind the restoration of America's animal populations. The great rebuild to America's animal populations is continuing today, and will be for many more years in hopes of rebuilding animal populations to their earlier levels. Although, much of the animal's former habitat is now the habitat of the naked ape.

Many people don't understand that hunting is one of the main forms of conservation. If there were no animals there wouldn't be any hunting. People who love to hunt pay for most of the animal conservation going on today in North America. In 1907, only 41,000 elk remained in North America. From the money and hard work invested by hunters to restore and conserve habitat, today there are now more than 1 million elk. In the 1900's there were only 500,000 whitetail deer throughout the whole country. Today there are more than 32 million whitetails, and they have moved to the number one most dangerous animal, due to all the fatal car crashes involving them. There are many other species of animals that have been restored to larger numbers throughout the world, from the conservation that is hunter led. When I read this I thought "well of course we want to increase the herds of these animals, they are all game animals". But habitat, wildlife research and wildlife law enforcement work which are all paid for by hunters, help countless non-hunted species as well. The principal effects that hunters have on animals is the conservation they provide through purchasing licenses and herd reduction from harvesting individual animals.

Wildlife management work is discussed often, although many people don't understand the work that goes into this science. When you research animal management the phrase "carrying capacity" comes up often. This phrase is defined as: *the environment's maximal load, the amount of animals the land can*

hold and take care of. In other words, if the carrying capacity is exceeded, the population of animals declines because it's environment can no longer support the excess numbers. Each state's department of environmental conservation attempts to figure out the carrying capacity of particular environments to support specific animal herds. Then they will figure out the number of excess animals, the ones that the land will not be able to provide enough food, habitat, water and other resources. This number of excess animals is used to derive the number of animals that can be harvested by hunters. In this sense, hunters are actually helping the herds stay healthy and strong, giving the surviving animals the room and resources they need to pass on healthier genetics for future herds.

The other side of this question that we need to talk about is the ethics and morality around taking an animal. The definition of the word ethics is: *moral principles that govern a person's or group's behavior.* To refrain from hunting is a newer human behavior. Hunters are the minority now and to continue hunting we must do it in a way that is acceptable to the majority of non-hunting humans. Some non-hunters hate the idea of killing animals, but many are okay with the ethical pursuit of wildlife. The author Jim Posewitz defined what it means to be an ethical hunter by saying: "A person who knows and respects the animals hunted, follows the law, and behaves in a way that will satisfy what society expects of him or her as a hunter".

It is very important to know and respect the animals you hunt. The more you respect the game the more ethical you will become. I recall reading an article once that said you can make correct ethical choices without memorizing rules and regulations, but this will only happen when you see yourself

and wildlife as part of the same community. What I got out of this is that, you don't want to destroy your community, you will treat it with respect; when nature becomes your community you will treat it like its your own house or something you cherish greatly.

To return to my question: What does hunting do to the animals? Through the purchase of licenses and other hunting gear, hunters have paid for and helped rebuild animal herds from the low numbers in the early 1900's. Hunting organizations such as the Rocky Mountain Elk Foundation (RMEF) or the North West Turkey Federation (NWTf) have contributed to well over eight million-plus acres of habitat conservation. Animals are being closely monitored by the departments of environmental conservation to maintain a healthy carrying capacity. And last but certainly not least, we explored how it is very important to most hunters to hunt in an ethical and moral fashion. In order to become an ethical hunter, we must learn and study the animals and feel a connection to them so we do not treat them badly. As rules change from year to year and also are different regionally, it is also important to stay up on the laws and rules. By abiding by hunting laws that were carefully written after studying wildlife, hunting provides balance to herd populations and health.

It is as simple as saying "without animals we couldn't hunt." That is why hunters must responsibly conserve these animals. We should be the ones who care the most about the animals, in order to keep our rights to chase wild game, and feel the presence of nature up close.

III

We drive through the treeless high desert of eastern Oregon, I wonder when the terrain will change to the thick stands of conifers in the Umatilla National Forest. Headed to my first elk hunt ever, I've been googling pictures of the land in which my tag permits me to hunt. All around me I see rolling farm land, not the pine covered Eastern Oregon Blue Mountains I imagined. As my dad, brother and I cruise down Highway 74, none of us know what to expect in the elk woods. We are from the midwest, growing up seeing and hunting whitetail deer in broken up farm land. Now we are on our way to hunt the elusive rocky mountain elk amid thick forests. Because this is a novel experience we are excited about the chance to get out and explore new land and the creatures that thrive there.

Quicker than my eyes could adjust to the new flora and fauna, we were in mountainous terrain, thick with ponderosa pine and douglas fir. As we gained altitude, the road started to get narrower and bumpier. As it begins to get dark, the temperature on the truck thermostat reads 43 degrees fahrenheit. It is towards the end of September. Because I drew a special hunting tag which allows me to hunt early, the only other hunters in the woods will be archers. We find our way slowly to a camp site, asking other hunters for directions.

It is now about 9:00 PM, and the sun has been down for a little over a half hour. We quickly set up our home for the next two days, and start cooking the famous hunting meal consisting of some form of meat (usually sausage), Bushes Baked Beans, and potato salad. After a solid hour of goofing off and eating dinner, we head to bed, all with our own ideas on what elk hunting is going to be like. I feel a close connection to my Dad and brother in this moment.

After a very long night of trying to fight off the hunting jitters, it was time to see what this is all about. We set off in a direction, it really didn't matter which way. It was still dark all around us. As the sun comes up we quickly realize that there are elk signs every where we look. Every small field we came across was mowed like a golf course, and trampled like a cattle yard. There were small pines completely stripped of bark from the 700 pound bull elk marking and taking the velvet off of its antlers. Heading down an elk trail, we'd see a pile of scat every four feet, reminding us of their near presence. Seeing so much sign of their proximity made us hunters very excited and hopeful about the outcome of the hunt. I just knew that it was a matter of time before we would see one of these elk.

It ended up differently, a long day with a lot of hiking and no sighting of elk until about 6:30 that night. You might think it's crazy what hunters will do to maybe see an animal. But walking around for over twelve hours before even seeing anything is a huge part of hunting, especially elk hunting. Why do we do this?

When we go out hunting we are not just going out there to shoot an animal. We are going out there to go out there. What is this "out there"? That's the question I have to answer, I have to figure out what is "out there" by first covering miles and miles by foot. We have to get to know the land we are hunting. It opens our eyes to amazing beauty, or it limits our vision with dense obstacles, and sometimes refreshes us with the freedom it allows us. Nature is a common word used instead of "out there", and it is really the nature itself that attracts hunters, not the animals. It takes a certain kind of nature to hold specific animals. No matter what, hunting will always come down to the land.

The land is the strongest, you can almost throw anything at it and it will find a way to bounce back. Build a city of concrete over nature and eventually that city will be flipped and turned back into nature. Animals are fragile, as we know we have witnessed many animals go extinct, but the land will always remain in some form. Even though the land is strong it can easily be altered into an unhealthy balance where the animals or the humans are over populating an area. What I witnessed in the Umatilla National Forest, in late September of 2014, was an over population of elk. The land was being trampled; we could see the efforts from people trying to plant deciduous trees, only to find their cages torn apart and the juvenile trees eaten to a nub.

This trip really got me thinking about what kind of conservation work goes into figuring out the amount of animals that can be taken each year to keep the land healthy. I saw coyote, bear and cougar tracks, so I know there are natural predators. But does this area need hunters to keep the deer and elk populations to a healthy number? I started thinking about a TED talk I watched on re-introducing wolves to Yellow Stone. Not having wolves had led to numbers of elk so high that the rivers were suffering from bank erosion. This talk really interested me. I feel like I witnessed a minor case of elk over population in eastern Oregon. I wondered whether and how the land may need hunters? So my question is: *What does hunting do to the land?*

When you ask a person who lives in the city what they think of hunters, many will say something along the lines of: “ It’s just a bunch of beer drinking rednecks, who have no respect for the land, driving around in their trucks disrupting the land”. Then

you ask a farmer or a country folk what they think about hunters, and they will reply with an answer along these lines: “ It’s those city people who come out here and stomp around on the land we grew up on, and disrupt the peace and quiet we love so much”. People always like to focus on the negative effects of things, its true, the bad stands out more than the good. As I learned in my Hunter Safety training, several studies show that the majority of hunters practice ethical treatment to the land while hunting. Many people have their reasons to blame others on the destruction of land, but legal, ethical hunting is designed to not be destructive to nature. I further learned the reason for this is the careful and scientific laws around hunting.

There is no argument about it; humans are spreading onto and into the animals space more and more each year. Pushing them further away from our ruthless civilizations, in which we truly have ruined the land. With the larger farms spreading across the states we are seeing greater populations of animals in those areas. We are making small dreamlands for the animals, by giving them an assortment of different foods such as corn, wheat, alfalfa, beans and sugar beets, these animals are no longer leaving these farms. There are not many studies about how these large farms are effecting wild animals today and how they will impact their future. This kind of land is not natural, the animals are getting every thing they need in one stop. These farms are creating a sort of animal Walmart, which is acting as a sort of magnet pulling animals in. It will be interesting to see what happens to the animals as the farms grow and the cities sprawl. We have the ability to change the land very rapidly today, from logging to construction to farming we shift the land making the animals adapt there patterns.

Is hunting good or bad for the environment? Again the answer to this question depends upon who you ask. On the one hand, some say, nothing could be more natural than hunting, and indeed just about every animal species, including humans has been either predator or prey at some point in it's evolution. On the other hand, many environmental and animal advocates see hunting as barbaric and cruel, arguing that it is morally wrong to kill animals, regardless of practical reasons. The majority of hunters and environmentalist both fight against urban sprawl and habitat destruction. Yes, there is ample controversy around this question and it his hard to answer because all the "studies" lead to different conclusions. What I gathered is that both the environmentalists and hunters fight for the wellbeing of nature.

My father put in for a lottery tag for eastern Oregon elk this year. He was successful in drawing the tag. Just for fun, I decided I would do some research on the area, what I found out fits perfectly into this topic. His hunt is for the Zumwalt Prairie, north of Joseph and Enterprise Oregon. It is best known for being one of the continent's largest remaining intact bunchgrass savannas. Rocky Mountain elk began showing up on the Prairie in the 1970s after being introduced into eastern Oregon's Wollowa Mountains in the 1930s. At first the elk were hardly seen, a rare and exciting sight. But now the vast grassland sometimes resembles an overcrowded feed lot. The elk population on the Zumwalt Prairie has exploded from 500 a decade ago to 3,400 animals this year. "The elk move into those pastures 1,000 in a herd and wipe it out," said Enterprise-area cattleman Tom Birkmaier, one of the 22 ranching families that own land on the Zumwalt Prairie. These elk are destroying the native grass land, traveling through in herds of

over 1,000. These ranchers have massive elk pushes, trying to push them back up into the Wollowa Mountains, their historical natural living grounds.

This story is one of many stories about the over population of wild animals. I believe the earth needs the steady balance of predator and prey to remain healthy. The hunt is one of the most natural and healthy ways to keep the environment balanced. Its the growth and human expansion of modern society that's causing the problems to the land and animal populations. These huge farms and grazing lands are attracting unhealthy numbers to one area, thus destroying the natural wonders of the area. It's the cities ever expanding growth boudaries that push animals out, herding them into this over population and off balanced environment.

In conclusion, a healthy herd of animals will not harm the land, however to maintain a healthy heard there must be predators. As we learned in the chapter before, animals were slaughtered ruthlessly in earlier times, knocking out many of the four legged predators. The way humans interact with animals and nature through hunting is needed and natural. We learned that hunting dates back to 11,500 BC just in our continent. Although, there are less of most animals and also fewer hunters today.

I believe that hunting is something that will never disappear. We have evolved to use tools to capture game, our teeth are designed to tear and chew meat, and our intestinal tracts are similar to other meat eating animals. In chapter two we learned what it means to be an ethical hunter from the writer Jim Posewitz, he wrote; "An ethical hunter is a person who knows and respects the animals hunted, follows the law, and

behaves in a way that will satisfy what society expects of him or her as a hunter". We also explored how the Departments Of Fish and Wildlife consistent study of the management of animals, through understanding carrying capacity of the land to prevent overhunting and herd overpopulation creates balance. Lastly, we explored the land, which without it hunting would be impossible. It is the land in which the animals roam free, and it is the land in which the hunters will chase. For as long as there are lands for the animals to survive there will be hunters. As long as there are animals and hunters the land will survive, and remain healthy and fertile.

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The People Who Helped Me and Gave Me Motivation:

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- Erickson, Laura. Mom
- Cavin, Wade. Teacher
- Erickson, Dylan. Brother
- Erickson, Todd. Dad / hunting buddy
- Erickson, Noah. Brother
- Parker, Frank. Hunting Buddy
- Trefethin, Gabriel. Hunting Buddy
- Reynolds, Dakota. Hunting Buddy
- Parker, Dave. Hunting Buddy

Klady Hanson
Foster Care in the United States

“Safety should not be a luxury for our children”
-Alexa Bierce-

As of September thirtieth, 2012, there were 399,546 children in the U.S. in some form of government controlled care system, either in the home of a relative other than the child’s biological parents, a shelter, or a home designed specifically to house abandoned children.¹The whole idea of foster care system began with a man by the name of Charles Loring Brace. Charles began his foundation in the mid nineteenth century. At this time there were approximately 30,000 homeless or deprived children, and he took them in, then later placed them with multiple families throughout the state. His belief was that while a child was in the care of some other legal guardian aside from their biological family, they should be raised on a Christian family farm. This way, each child was insured a proper education, a loving family, most likely siblings, and also the fundamentals of learning how to work. In 1890, Charles passed away, leaving his business, the Children’s Aid Society in the hands of his sons, who continue to follow his original ideas. Together, they helped to house 120,000 children in a group home near where he lived. It was this organization that helped to later create the Federal Adoption and Safe Families act in 1997, which allowed the court to have more access, at any time, to the families who were housing children. It gave children more safety when they were placed in a foster home. Foster care itself is based on the

idea of placing a child with a foster family. By doing so, the child is given safety and security. This idea stretches back to the 1500’ s. When the first case of reported child abuse in the United States, in 1874, was documented, the court was given their first real glance at how the children were being treated. And when a local charity heard that a single mother was abusing a ten-year-old girl, laws began to be put into motion to help protect these children, and to prevent more cases of abuse from arising. At this time it was not a strictly enforced rule that the state was to get involved in abuse cases, but when the local authorities did visit the home, they saw evidence on the young child’s body of abuse, and made the choice to remove the child from the woman’s care. The woman however, was not the biological parent, but had found the baby at eighteen months old on her doorstep. After the child had been removed from the woman’s home, her case was given to the court, despite the fact that there were no real laws prohibiting child abuse. But animal cruelty rights did exist, and the community asked the court to look at the case, on behalf of the child. They then learned that the girl had been either beaten or whipped every day. It was this case that moved the judge’s feelings enough to permanently withdraw any communication and contact with the girls’ previous caretaker. From there, new laws were created in 1875, to help prevent this from happening, and soon after many states began to create similar laws as a way to protect children. Finally in the 1900’s, social agencies began to take more care into documenting where each child is placed, working to match a child’s needs with a family suitable to meet these needs, as well as ensuring that the foster families were more regulated. In 1909, the White House held a

¹ A House Between Homes by Joyce Libal

conference on Dependent Children Acts, and as a follow up by President Theodore Roosevelt; in 1912 the United States Children's Bureau was founded as a way to maintain public responsibility for a child's welfare. In 1935, the Social Security Act was passed during the time of President Franklin Roosevelt, which, among other things, allowed federal money to be used to support foster homes and safe houses for orphans. As time went on, the state began to realize that foster homes were becoming a more permanent solution rather than a temporary one, and so began the Passage of the Adoption Assistance and Child Welfare Act funds. With this new act came much more public knowledge of child abuse and neglect, and more money was provided to foster families to help them meet the child's individual needs.

With the new laws and rules of the Adoption and Safe Families Act, came many new features to care for children, and ensure safety. Issues like a child's health and safety were taken into account before being placed with a family, and a child living in a foster home now had the chance to work with the court and social workers to bring the biological parents back into their lives. Also permanency plans were made for the child, whether it is adoption (most common), guardianship, or kinship. More awareness was raised, as well as more information given to the public, and the law also created a movement called the Adoption 2000 Initiative, to help set a goal to double adoption rates in 2002, that would bring the number from 27,000 to 54,000.

There are many different kinds of foster care. Short-term emergency care is provided when a child needs to be moved out of their home right away, with little notice to the state or family. The placement in this type of home is usually only for a couple weeks, and the families whom the state have deemed suitable for this are typically families who have been a

part of the system for many years, and are willing to understand any type of situation, as well as welcome any sort of child, or sibling sets. This home helps to give the child a safe, nurturing temporary home, while the social service agency and assigned lawyer or representative look for a longer home placement option. More often than not, the children who enter this sort of home come from an abusive home, whether it be from abusive, verbal, or substance use. Regular foster care homes are responsible for providing long-term residency to children, while doing their best to work with the state to bring the child back to their biological families, or to a family wanting to adopt. Therapeutic foster care brings in families who have been willing to endure more training, in order to help provide children with special needs, or sibling sets. And the last "type" of foster care homes are those who wish to give the child permanent residency in their homes, even if the child ages out, even if they don't actually wish to adopt. Along with this kind of foster care comes the option to take respite foster care, which is what allows the family to take a short time away from their foster child, as opposed to simply sending them back into the system for whatever reason.

Each child is different, and how much a family gets per child differs depending on where they live, whether the child has special needs, the child's age, and also the family itself. For example: Does the foster parent have a steady income? Are they single? Do they need extra support or extra help? General things like that all play a role in how much money the family receives from the state. The average amount a family receives per child is determined by the child's age, and whether or not they have special needs that have to be taken into account. The Base Rate Payment for a child in foster care covers many things that the child may need throughout their stay at with their

foster family. The payments covers food costs for unique or special diets, clothing, both for new purchases and replacements, housing, which includes maintenance of the household utilities, furnishings, and equipment, personal incidents, which has a rather broad term because this section covers everything from personal care items to entertainment, reading, and miscellaneous items, as well as transportation, such as reimbursement for car gas and oil. The state also funds the child's extracurricular activities if the child or family seems it fit to enroll the child. A family with a child between the ages of zero and five is given five hundred and seventy five dollars per month, while a family with a child between six and twelve receives six hundred and fifty five dollars per month, and a family raising a child from the age of thirteen to twenty receives seven hundred and forty one dollars per month. However if family is certified by the state as financially stable and reliable to raise a child, then they do not receive a base payment, but instead they get what is called a Shelter Care Payment, which means that one set payment is given to the family for twenty days only, and then not again throughout the entire time the family has care of the child. The average amounts for certified families range from \$24.60 a day for children between zero and five, \$28.00 per day for children between six and twelve, and \$31.60 for children between thirteen and twenty. And with all this comes three levels of enhanced supervision to a child that is need of special attention, for reasons such as trauma, ADD, ADHD, behavioral issues, or just with the need to speak with a professional. The three levels at which a child is determined in terms of the amount of care they receive, is on a scale of moderate, intermediate, and advanced. A moderate case child calls for about two hundred twelve dollars per month, an intermediate child is about four hundred fourteen per month, and an

advanced child is about eight hundred fifty per month. They also will be able to have access to personal care, and the prices for this are roughly the same as those receiving professional help. A moderate child will be given about two hundred seven per month, an intermediate child about four hundred thirteen per month, and an advanced child about six hundred twenty per month. There are of course cases where a child needs less or more counseling, and/or personal help, and this is when the state deems what they find necessary to provide both the child and family.

Today, with so many children in foster care systems, it is very difficult to find proper housing for a child, despite the number of group homes and families that are helping house children. And the numbers are constantly growing. When a child is introduced to the system, it can be for a variety reasons, ranging from the loss of parents, abusive home life, or even the court's final decision to remove the child, due to a lack of guardianship over the child. As a way to help put the children with accurate families that can best match the child's needs, there are two major terms used in foster care systems. Entry refers to the information about the child, who is being entered during a given timeframe, which is most always from October 1, to September 30 of the New Year. Exit refers to the information about the child, when they are removed from the system, either because they have found a permanent family, or because they have "aged out" of the system, meaning they have turned eighteen. On September thirtieth, 2012, an estimated 399,546 children were in foster care in the United States alone, and as far as official entries go, about 254,162 children were brought in, while 241,254 children As an average amount, it was finalized that the time a child was in care was about 13.4 months, with twelve percent less then a month in care, thirty five percent ranging from one to eleven months,

twenty seven for twelve to twenty three months, another twelve percent in care for twenty four to thirty five months, and six to nine percent in care for five or more years. While the average age of children in care is eight years old, most enter around the time they are six, six and a half, and the average age that they left the system was around eight and a half years old. These statistics are just one example of what is happening to children, and how we need to find a better, more effective way to help them, and this situation.

If these percentages continue to grow at the pace they are, by 2020 there will be 22,500 children who will die of abuse and neglect, most before they reach their fifth birthday. The United States is headed for a crisis if more and more children enter the system. It's already been proven that the amount of children entering the system is growing, as is the amount of children who are aging out of the system before they are mentally prepared. And this is going to cause trouble later in their lives, not for them, but the public as well. More than ten and a half million will spend time in foster care, and more than 300,000 will age out of the system in poor health, and with no way of knowing how to navigate themselves through adulthood. Out of all this, 75,000 will experience homelessness, and approximately 18,000 will emancipate themselves.

But all that I have written is numbers, percentages, and statistics. What about the children themselves? We live in a place where we are given the freedom to do what we want, when we want. We choose whom we marry, and we choose the right to use some form of birth control. But even with all this, we still seem to make a common mistake: having children when we are not prepared to care for them. In general, as a society, we are very aware of the fact that are homeless children needing adoption, as well as those in foster care that are waiting for adoption. What I can't seem to understand is

why when we know all this, we still choose to make poor choices, like having children when we are not ready, or not following through with raising the child. The children who are already here didn't choose to come into this world, they didn't choose to be put in foster care, yet alone be that unlucky child who is promised a home, but sadly put in a foster care home where the family choosing to house them are only doing it for the money aspect of it. While most people look at foster care as something good and helpful to children and families, not all of them are doing it from the good of their hearts. So many people use these children as a way to eliminate government funds, such as taxes. When a child is given to a legal guardian, other than their biological family, they also come with state issues funds. And over time, this money can add up to a significant amount for the family choosing to foster. And sadly, this is very common, people choosing to do it because they need the money. Choosing to foster a child has a very fair amount of benefits, from government aid and food stamps, to special discounts on things simply because you chose to help out a child. Most commonly, when people do choose to foster a child, they often only take on one at a time, even if the child is part of a sibling group. It is wrong that they are allowed to split up a family. When families are left to orphanages or to the system, they go into these situations with only each other to lean on. No parents, no relatives and most likely no money. These poor children are trying to be ok, in a system of completely new people, new surroundings, and the only familiarity they have is each other. To split them up should not be allowed. How would we feel if you were put into that situation? Would you be ok with leaving your family behind, never knowing if your sibling was ok, or where they even were? And then what would you feel if you were asked to be adopted or fostered, but without a sibling who is an infant?

Only you know the things that that baby needs, what their favorite toy is, or lullaby. How would that make you feel if suddenly you knew that you would not be there to protect that child? While this is my view of the situation, I know I am not the only one, and in books and videos I have heard stories of children who were put into the system. There is a common ground about this specific topic.² We need to stand up to this, make this not allowed in foster care systems and adoption anymore. And aside from the emotional aspect of separating a family when they are young, there is also the psychological aspect of it. When a child is taken from what they know, what they are accustomed to, it can turn into a very severe mental issue. And this it is one of the ways that Post Traumatic Stress Disorder (PTSD) begins to form when they are older. And to set up a child for something like this, already putting their future into risk is something we should not be allowed to do. I just can't get past the fact that these children did not choose to live in this world, nor did they choose the life they have, or the life that their parents gave them. Why should these children be punished for their parents' mistakes? Of course, this is not always the case with foster care children. Sometimes they do come from loving parents, but tragedies do exist, and sometimes the parents go before they are supposed to, leaving the children in the care of either a relative or someone they previously chose to become the caretaker of their child, either until the child is eighteen or other arrangements have been made. But sometimes this isn't one hundred percent foolproof, seeing as maybe the guardian that the parent chose no longer wants the sudden responsibility of a child. Then they have the

power to either give the child away, or just be neglectful. But there is also the case where a parent has to give up the child, because they know that they themselves are not yet fit to be a parent, due to either money issues, an abusive partner, or simply because they know they cannot give the child everything they know that it needs, despite the fact they love their child, or children. However this is when we see these parents looking to give their child up for adoption, because adoption ensures that the child is placed with a family who is ready to support both financially, and emotionally a new addition to the family.

While there are many people who want to help this situation, not many are sure what to think, since it's pretty common sense that choosing to foster a child is a challenge, and can bring an uncertain future to the family. And while it is true that it is something that will more than likely bring a challenge, it can also be rewarding. You are helping a child to heal, and grow when they don't know what to do, and you're helping them to grow and heal. And the United States allows almost anyone to foster a child. Of course background checks and legal issues are one thing that the foster parents have to go through and qualify. And most people to some degree do actually hold the ability to foster and care for a child. They need to be kind and caring, passionate and understanding. But most importantly they need patience, because patience is what will allow the child to grow and to feel loved, like they can treat you as their own parent, because when they are able to feel comfortable around you, despite their past, then that is what can help to truly form a bond. These children are not

² A House Between Homes
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monsters; they're simply forced to live a life that most of us are living with maybe more privileged rights. And of course, some have faced more difficulties than others and that is definitely going to play a role in their behavior. But that doesn't mean there is no reason to care for them. They just happen to be a bit more wary of the world around them. But with time, almost anyone is willing to come around, and when they do, it's someone who is there, ready and willing to listen, that is going to show them they have a potential, they are worth something and deserve to be heard in the world, despite what they have been told or shown. A child shouldn't be held accountable for the harsh things that the world has given to them. I would hope that someone who feels they are capable of raising a child would at least consider it.

While foster care is something that has such a promising impulse behind it, sadly there are many people who do not do it out of the goodness of their hearts, but rather look at the child as their meal ticket, or way of getting extra funding without having to do physical work. And aside from the feeling of helping a child, there is a fair amount of money that fostering does bring in. In no way is it enough to support an entire family, but it is enough to have some extra wiggle room in what you choose to buy for yourself, and your own personal needs.

As you can see, deciding to foster a child does bring in a small, but significant amount of money, for lack of better words. And sadly, this is why a lot of people see a child as their meal ticket, or a way to get more money from the state. This is not uncommon, and the amount of people who are using a child as a moneymaker, are not by any means dwindling. As the economy changes, so do the people. And despite the fact that right now we have an economy that is trying to rebuild itself, there are now more than ever before, more people who

are falling into the poverty "section" of the social ladder. And some people will do anything to keep their lifestyles afloat, whether it is through cheating, stealing, gambling, or raising a child. And those who choose to foster a child simply because with a child comes money, are rather common. These people don't understand, I don't think, just how they're affecting the child. To a certain degree, they think that they are helping, and they are if you take into consideration that the child has a roof over their heads. But what about the emotional state of the child, or just how much a person, yet alone a human who is most likely not even a teenager, can take before they break emotionally? As people, we can only take so much trauma and stress before it begins to take a toll on us, and sometimes foster care children are more susceptible to this. Not only can the situation they are in at that moment can be harmful, but it can lead to lifelong mental disorders. And many people do want to help out, but many are afraid of not being able to meet the challenge, or not being able to take such responsibility. What we, as the public, are shown about foster care systems is that they are housing children whom have had horrible backgrounds, are hiding from their past, or have mental issues, due to an abusive relationship with their parent or guardian. And while all this is true, many people end up backing out of choosing to provide foster care because they feel overwhelmed, or realize that a child with a dark past can have sometimes a hard time coming forward and learning to trust, and a lot of people have a hard time learning the kind of patience it takes to help a child like that. Foster families are a huge part of playing a beneficial role in children's lives, and many benefits included are; the child gets a better home life situation, child homelessness is reduced, many children learn life skills that will benefit them in the future, and some are adopted into loving caring families.

But some of the dark sides of foster care like the abusive side, are still very real, and something children in these homes face every day. According to a survey done in 2013, it is realized that one child between the ages of six months and six years, is found dead in New York, and that the child came from a foster home. And these are the children they find. Yet still, adults are not always screened properly, and some children end up becoming slaves, because they don't "fit" like the other family members, some children are abandoned by their foster families before the state can even be notified, or the foster family checked in on, and most of all, a fair amount of the time the children suffer simply because of loneliness, regret, sadness, labor or abuse. And sometimes even all these. And it's true that choosing to share your heart and home with a child who is not your own can be difficult, seeing as they are not your own blood. But as a foster parent, there are steps and training that are required, that help you too prepare for it. While requirements differ from state to state, the main ones are rather similar. A family wanting to take in a child must be able to pass a criminal background check, that covers everything from checks of theft, murder, to spousal and/or child abuse. Other requirements of foster families, or a single foster parent are, in some cases, an age of twenty one or eighteen, good health, employed or retired, with adequate funding available, good references, either a private home or apartment with proper space to raise a child, willingness to provide a home inspection once or multiple times without an appointment, willingness to help and work with the biological family, court, and service providers, and the ability to know when to maintain confidentiality and when to share information. And it's these steps that help families be prepared for what they are about to do. People planning to foster should be able to understand the importance and necessity of giving

their child proper nutrition, a safe environment, good scheduling techniques, patience, and good role model skills. It's really not that difficult to take the first steps towards foster parenting. All that is needed to get the ball rolling is a call to your local social service agency, and request information and the next step to take. And anyone can take on this challenge, young or old, married or single, religious or nonreligious, heterosexual or homosexual. It doesn't matter who you are, it only matters that you can safely provide what you are asked and expected to do, and can open your heart to a child.

With the percentages of children in a state administered foster care home rising due to more and more teen pregnancies and people uneducated in birth control, so does the percentage of children not finding permanent families. Why? Because the amount of children with disabilities is continually growing, and this makes them a bit more challenging to house, if not more time consuming. And most people don't want to deal with this. And there are many different reasons circulating around why they do not, ranging from reasons simple, as they are afraid, to horrible ones like they find it disgusting. Yet why does a child who has ADD/ADHD, or a learning disability have to work twice as hard to "fit in" with their adoptive family, or group home? Why do they have to be pushed aside during the time when families are looking to foster? Why cant people see that they are children, and just another victim of a family unwilling to raise them? And more often then not, the reason they are in foster care to begin with is because they have a family who doesn't want them, or cant afford to raise them. And this is why they are left in the states care, because no longer do the parents want to deal with something that simply takes a bit more effort. And when these children are lucky enough to find a home, it's often a group home. Now group homes do have many advantages, such as trained

guardians, who are around twenty-four seven, and have access to psychologists and/or social workers. But they also have disadvantages, such as lack of attention to their special needs, and not a strong, supportive role model figure for the child to follow. All of these challenges make it that much more difficult for these children to find a home, since not many people feel they can take up a child with special needs, and that makes it that much more difficult for the child to find their way in the world, and it also leads back to the concern of inadequate education around birth control and how to prevent even more births from happening.

There are many other alternatives to foster care, which perhaps need to become more evolved in the system, since they also offer the necessary fundamentals and ground rules for a child entering the real world. Reunification, emancipation, guardianship, or kinship care are all very real and very possible if the child is willing to work with the resources they have been given. Reunification is one option, and helps work with the child and their biological family, to bring them back together. Or the child can choose to emancipate themselves, which is when, under certain circumstances, older adolescents can seek out the courts help and ask to be legally released from their family, even if they are not eighteen. However, in order to do this, they must prove they are financially stable, as well as mentally stable and ready to fully support themselves, with no support from the state, as they would if they had to support themselves like an adult. When people choose to emancipate themselves, they then have the right to seek kinship of a sibling or relative. Kinship care itself is when the child is placed with another family member who is an adult. Sometimes a teenager will ask to be emancipated, and then ask the court, as a now legal adult, to take over care of a relative who is maybe still in living situation

that is dangerous, instead of putting the child into the foster care system. However, in order to receive financial aid from the state as a kinship care home, the adult must become a licensed foster parent, even if it is for a sibling and they do not plan to house other children at that time.

As a child in the foster care system learns to navigate their way through life in the foster care system, typically they will go through what doctors describe as the five stages of grief. Denial, anger, bargaining, depression and acceptance; denial typically involves both the parents and child, and their ways of trying to deny to themselves and each other that there is a problem. Anger is what usually follows, and stems from their anger at admitting there is an issue that needs to be addressed, and for allowing the involvement of others. This leads to the next stage, bargaining, which is about the time when the child, or family decides to try and bargain with whoever they have put in charge of their situation, as a way of trying to stop anything else from happening with the state. They may even try and obey rules more, as a way to try and convince themselves and others everything is okay again. If bargaining doesn't work in their favor, they're most likely to feel depression. When denial and anger begin to surface as their attempts at deal making, then feeling depressed almost always follows. (Not and why? Mostly because when they do not come forward, they convince themselves for the time being that everything is ok, maybe unaware of what is festering inside them). The child can feel a sense of loss and confusion at their situation, and they tend to withdraw themselves from the situation, choosing to find respite some other way. And finally, if a child can find their way through the situation, and the families and others involved as well, then acceptance is what tends to follow. Over time, most will find a way to live with what has happened, and grow ties with their foster or adoptive

family, learn to love what they have been given. Their emotional stress will decline, as they let new ones in, as well their self respect and esteem. This final stage is also one of the hardest for some biological parents. If they realize that their child is truly better in the care of someone else, and that they have moved on, it can be sad for the family, and may even prompt them to discontinue any hope of reunification. My whole point in talking about the steps of emotions a child can feel is to help you understand what is happening. These emotions and feelings have been carefully cataloged and written down by many scientists and therapists, and are a huge part of what a foster parent needs to be aware of when they consider fostering or adopting a child.³

This is only a tiny bit of information about foster care. There is so much more to learn, to read about, such as an in depth report on the legal side of fostering a child, or adopting, and also all the stories about children who were fortunate enough to find a loving home. While the intention of my essay was to help bring to light some of the darker sides of foster care, and help my reader maybe consider looking into the topic, there are also so many more stories that do have a happy ending? But what information you do have should be enough to make you think about these children who need homes. Every day we go home, taking for granted the warm house we walk into, the food in the fridge. But so many children have never had this luxury, and this is something that should not have to be a privilege, or a once in awhile thing for children. It should be something that they get to do daily, just like we do. While every child is brought up differently, it shouldn't mean that they do not get the same "normal" childhood as we do.

How you are raised can determine the rest of your life, who you are as a person, and every child should be given that opportunity, to later be able to grow and flourish as an individual, someone who has a voice. And maybe you know that fostering isn't right for you, maybe just at the moment, maybe forever. But that doesn't mean you can't help. Sure, not everyone can be a foster parent, but we can all support a foster child. Those bins that say coat donations? Use them to your advantage. Donate things that don't fit, or you have two of. Send money every so often to the charities focused around foster care. Considering volunteering in-group homes. It's not hard to make a new friend, and these children are relying on us to make that difference. They don't deserve to be tossed aside, like so many others have done, even in some cases their parents.

As a way to conclude my essay, I had wanted to interview someone who had been through the system and been part of a sibling set, but they ended up not being able to do this interview with me.

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Off record talks with relatives

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³ A House Between Homes by Joyce Libal

Emma Lacy

Iraq and Afghanistan War Through Two Views

I remember my first protest clearly. It was summer and I was about to turn seven. I could see everyone from my father's shoulders: the men in gas masks flanked our right and the tie-dyed band of hippies meandered along our left. We were in the middle section of middle class families marching to stop the war in Iraq that President Bush had just started in March of that year, 2003. We marched and chanted down the park blocks past rows of police with chained dogs. I saw three men get arrested that day and a dog with a sign that said "I pee on Bushes" over its sides. As an almost seven year old, these two moments were the things I remembered most, but I also recall participating loudly in a call and response: "what do we want?" "Peace" "when do we want it?" "Now" – repeated over and over. This was my first view of political activism and my first inkling that I was part of some great nation that could fight other nations in war.

Since that summer of 2003 I have been to many more marches, many more assemblies, an occupy action, a few peace seminars in the park and I have read my weight in books about war and foreign policy. I would now like to take the time to study the war I was marching against in 2003, but I will look at it from two specific lenses: that of the returned soldier and that of the war strategist. Looking at the history we can see many arguing views and opinions of how to carryout a war and that is just one side. The soldiers view is slightly more hidden. Perhaps only from my life, but in my family, I only hear how horrible all the decisions about the war were and how terrible president Bush was and such. This was my view before this project, when I learned all the complications that had to be met. The reasoning for an order and planning that goes into it,

is usually extensive, but if a step is missed or outside forces change any factors, the impact is directly felt by those who carry the order out. For example the placement or direction of a rocket: if the strategist looking for the desired target mixes locations up, or the target moves, the rocket will detonate an area full of possibly innocent civilians. And the soldier who fired the rocket, pushed the button, even started the drone, has the guilt and effects of that including possible PTSD. For this reason I have chosen to see this particular war from their side, this is not to say that I have skipped the historical and strategically aspects of the U.S. war with Iraq, because I have not. I know the timeline, the prewar negotiations in the pentagon and the post war negotiations for the many years after, but all this information is really a mode of context for how the war was seen and felt by its U.S. participants. How this experience differed or compared to that of the planner or strategist of the war.

This paper is written to show a snapshot of the Americans who fought in Iraq and Afghanistan. It is also to show the transition back in to society once the fighting was over. Why was it so hard for many soldiers to come back into civil society? Come back is the defining word. They were coming back from war. So war has to be illustrated here so that the cause of conflict for the soldier is fully understood. What happened in Iraq and Afghanistan? Why were so many people diagnosed with PTSD? The president and members of the state were involved in the war, but how did they plan for PTSD? How do we civilians help make the transition from war to civilian life an easier transition? This is an essay written to show how the events of the Iraq and Afghanistan war were felt and influenced the soldiers who fought in them. These questions and more are what fuel this essay, through history

and personal accounts from the time period between 9/11 and today.

My senior project goal is to bring stories of war closer to home by publishing recorded snapshots in time from veterans of the Iraq and Afghanistan war onto a web page for anyone to hear. This page will also provide veterans anywhere to upload their own oral recordings of themselves recounting a story or moment of their deployed time. Before the single recorded story I am conducting an interview of each veteran to here his or her full story myself. Information from their personal recounts of their experiences in war is fuel for the veteran angle of this research paper. The project and paper will further my knowledge and interest in foreign affairs, as well as my interest in our current foreign policy, which I wish to study and work on in college.

Veterans need to tell their story for two major reasons: a second version of history and a way to heal themselves. History is so often told from one point of view; the single story that becomes the only story by repetition. My single story of the Iraq/Afghanistan war was that two evil men named George Bush and Dick Cheney attacked innocent people through the many equally bad soldiers who like to kill people. This was a ten-year-old view, but it is still vastly unjust. I have noticed that my father categorizes soldiers as pawns or products of the people who give them orders. Assuming that each soldier holds the views and voice of the people who give them orders. This would translate to me believing and agreeing with everything that Obama says, he is the representative of my country, but he does not represent me. I used to believe that all soldiers wanted to kill people; it is true that some people join the military for this reason, but as Ben said “ no group of people can be categorized as one.” Everyone

has his or her own story and if fox news happens to hear one, that one story becomes the only story and a deeper truth is lost.

Though many people assume that the president caused the mishaps in the Iraq and Afghanistan war, there is actually a bigger umbrella of decision making people and the president usually chose one of two or three options shown to him. The other overlooked fact is that a lot of planning and organization went into the strategies behind each military operation, even if it was not enough. To fully understand the reasoning behind actions each soldier carried out, you need to look at the Bush administration and their decisions.

On March 20 2003, the United States began the Invasion of Iraq; coordinating a satellite-guided tomahawk cruise missile strikes on Baghdad. American, British, Australian, Polish, and Danish military operations began by moving ground troops into Iraq. Though this was the first strike, we have to back track quite a bit to see the incentive and planning. Well before 9/11/2001, the Bush administration officials wanted to invade Iraq and remove Saddam Hussein. “Within weeks of the 9/11 attacks president Bush and Secretary Rumsfeld had asked to see plans for a possible invasion of Iraq.” Congress voted to authorize the war in October. Immediately after the vote, planning bureaus inside the pentagon were told to be ready for combat at any point between then and the following April. 9/11 gave president Bush and Rumsfeld leverage with the American people to go to war.

On February 14 the U.S made the decision to go to war public, and anti war demonstrations massed in many major cities around the world: a million in Madrid, more than a million in Rome, and a million or more in London. The division between supporters and non-supporters worldwide

was stark and hostile. Britain sided with the U.S., but the rest of Europe was furious. The U.S. was trying to change the face of the Muslim world and Europe was going to be the directly affected by that change. Yet the U.S. planned it outside of the U.N. and without consent from the U.N. Many, many people were enraged by this decision. There was great controversy as to motives for going to war as well, and each statement President Bush pushed, you were sure to see several democratic, congressional and diplomatic officials question and disagree his views. One of the arguments was that war would improve life in the region. James Woolsey, a former CIA agent and prominent advocate of the war, stated "It would create the possibility of bringing to Iraq, and eventually the whole Arab world, something it has never known before: stable democracy in an open market system". He enforced how using Iraq as a gateway country; the U.S had a golden opportunity to westernize the whole of the Middle East. Woolsey backed his idea that going to war with Iraq would actually benefit Iraqis, by associating the Iraq war with WW1. How WW1 turned eight or ten democracies into about 120 free or partly free democracies by conquering and installing foreign democratic institutions. Woolsey wanted to transform the Middle East into a democracy and believed that conquering the country would do just that. Former diplomat Chris Sanders countered that, "There isn't a society in Iraq to turn into a democracy. That doesn't mean you can't set up institutions and put stooges in them". Society, culture and government are fully established in the Middle East, different from our western democracy. And changing it cannot be as abrupt and seamless, as the many members of the Bush administration had stated. Sanders was saying that Iraq does not want to become a democratic state, and that forcing them to become one would be unjustifiable. I think finding a middle ground between

dictatorship and democracy is what would have been ideal. So that it doesn't seem as if the U.S. is swooping in and forcibly turning Iraq into a democratic state, which is exactly what they tried to do. A whole society or people cannot be over run by an outside party, turned into something completely different from what they have been and be happy with it. That kind of extreme change is going to have repercussions, repercussions that were not talked about or planned for. "January 2003, "U.S. and coalition military units will need to pivot quickly from combat to peacekeeping operations in order to prevent post conflict Iraq from descending into anarchy". The report continued, "without and initial and broad-based commitment to law and order, the logic of score settling and revenge-taking will reduce Iraq to chaos". This was a reported statement sent out in 2003 by Leslie Gelb who was the president of the council on Foreign Relations at the time. Combat had already started, everyone knew that this would need to be done, and yet no one did anything about it. Everyone rushed in to fight and didn't think a bit about postwar relations and getting the country back on its feet without Saddam.

Another motive that was brought up by _ was that Iraq has some of the largest untapped oil fields in the world and it has not embraced the oil industry, as Saudi Arabia has. Saudi Arabia exports about 7mill barrels a day and Iraq has about 2mill but that could have quickly increased. The U.S. could see this of course so we moved in before China or India surpassed our import demand for oil. Production in most countries is declining so the U.S. wants two suppliers on the gulf coast. This is the real desire for our war with Iraq, but wanting oil doesn't sell as well as terrorism. " So in the Arab world the U.S. crusade against Saddam looks to be motivated less by fears of terrorism and weapons of mass destruction than by a wish to defend Israel and the desire for oil". Oil leads to money, which

was the next falsity to the American people. On March 27, eight days into combat, members of the House Appropriations Committee asked Paul Wolfowitz for a figure on the total war cost. He told them that whatever it was, Iraq's oil supplies would keep it low. "There's a lot of money to pay for this," he said. "It doesn't have to be U.S. taxpayer money. We are dealing with a country that can really finance its own reconstruction, and relatively soon". Then he said that the rebuilding of Iraq would cost 7 million dollars of taxpayer money and the rest would come from other countries that had pledged to help and money made off Iraqi oil. This 7 million-dollar copay idea lasted for about a year until post war Iraq started to give the Bush administration problems. As which point Bush asked for 87 billion taxpayer dollars for operations in Iraq. This sum just kept growing and growing as more and more situations that could have been accounted and planned for, but were not, grew out of control and cost billions. By the summer of 2004, fifteen months after fighting began in Iraq, appropriations for war and occupation there totaled about \$150 billion. "With more than 100,000 U.S. soldiers still based in Iraq, the need for more money would continue indefinitely at a rate of about 5 billion a month." Most of that money would go to fuel, ammunition, spare parts, and other operational needs. As the Bush administration began to realize that the war was going to last much longer than proposed and that post war Iraq would give them much more trouble than the fighting itself. They began to advocate for more time, more troops and more taxpayer money.

In order to get the money they needed from taxpayers, the Bush administration needed to prove that the work U.S. soldiers and administrative faculties were doing was beneficial and necessary to the American people and wellbeing of the country as a whole. So information about the looting that took

place directly after fighting ended in Iraq, was kept hushed and downplayed by the Bush administration. During a congressional committee meeting in June, former ambassador to Croatia, Peter Galbraith, stated: "In the three weeks following the U.S. takeover, unchecked looting effectively gutted every important public institution in the city – with the notable exception of the oil ministry". This statement, in my eyes, alludes to the Bush administration's desire to hold oil in higher priority than civilians. Whether this is true or not has been debated for some time. Even a week before the war Congress had committed to a short, quick war, stating, "we're going to meet their immediate needs. We're going to turn it over to the Iraqis. And we're going to be out within the year". Once the looting had started, Rumsfeld was questioned as to why U.S. soldiers were not preventing the looting, save the oil ministry. He replied that freedom allows people to live their life freely in harmony with those around them and it also "allows bad people to do bad things". This statement enraged the American people because he basically admitted that, from this point, the U.S. did not have a thorough plan to follow because post war Iraq was not thought about, pre war. A government-planning official, who would not give out his name, further justified the idea that the U.S. had no post war plan. He said that "There is no evidence that the president and those closest to him ever talked systematically about the "opportunity costs" and trade-offs in their decision to invade Iraq. No one has pointed to a meeting, a memo, or a full set of discussions, about what America would gain and lose by invading Iraq." He also said that there were only a few people who made decisions and that if you publically disobeyed them, they would come after you. The un-named man referred to a man named Shinseki that was ousted by this inner circle for publically telling the Senate Armed Services Committee

that "several hundred thousand soldiers" would be needed in Iraq for post-hostilities control. Shinseki's estimate was more than double the George W. Bush administration's, which sent a ground invasion force of 145,000 troops into Iraq in March 2003. Wolfowitz declared. "It is hard to conceive that it would take more forces to provide stability in a post-Saddam Iraq than it would take to conduct the war itself." By April 2003, one month after the Iraq invasion had begun; it became clear that Shinseki's troop estimate was correct. When mobs began looting government buildings and hospitals, there were not enough American soldiers to stop them. "Stuff happens!" was Rumsfeld's explanation of the chaos. The levels of deceit toward the American people by this inner group are unbelievable to me. And the reasoning given to justify all of this has been discredited and proved false by further research.

The first reason we were given was that everyone of the Muslim faith hated Americans for being American, but many believe that this is a grave exaggeration and I agree. There are few people in the world who are going to kill themselves so we cant vote to legalize Marijuana, but there are a lot of them willing to die because we are helping the Israelis, or because we are helping Putin against the Chechens, or because we keep oil prices low so Muslims loose money. Our 'American-ness' is not what fuels suicide bombers. U.S. administrative decisions and our foreign policy is what has made many countries and cultures resent the U.S. These were the real causes of hatred toward the United States within the Muslim world and with out. The second reason the Bush administration gave us was that Saddam Hussein was harboring weapons of mass destruction. This turned out to not be true, but even in the very worst prewar suspicions about Saddam Hussein's weapons of mass destruction had turned out to be true, the nuclear stakes

would still have been lower than those in North Korea or Iran. By august of 2002 it was know that Iran had two nuclear facilities and North Korea had stopped trying to hide that it was developing nuclear bombs. The Bush administration ignored the warnings of advisors as to these developing threats, and continued pulling full force toward Iraq. Weapons of mass destruction had been made the defining reason for entering Iraq, even though such suspicions were challenged by organizations within and without the U.S., the Bush administration just let them fall by. Evidence that the U.S. may have had ulterior motives for entering Iraq became more and more probable.

Motives are one thing and can hold a lot of prevalence, but actions do carry more weight, and the actions carried out in 2001 and 2002 dictated our involvement thus forward. Many people, in the government and out, believe that in the long run the U.S has harmed themselves. That we were playing to the enemy's political advantage, and that whatever small victories we gained along the way, the finish line will prove to be a major strategic blunder. Iraq reduced the manpower, financial holdings and tools of diplomacy in the U.S military. Nobody trusts the U.S. to not screw up so they don't want to associate diplomatically, and so we cannot depend on any outside help. By the end of 2002, it was considered that the U.S was less safe than directly after 9/11. I say that our foreign relations and projected distrust and alienation of foreign regions and people are what brought this war upon us. I believe that our constant projection of hate on the Muslim faith has fueled its extremist sectors and expanded on the number of people who join. Al-Qaeda was destroyed for six months, but by 2004 it had reconstructed at least 18,000 operatives in 60 countries with direct aim at the U.S. and its European allies. Through our actions and publications the U.S. has been giving extremists

reason to act against us. And reason to continue doing so until they see change. In my eyes through all that we have done, the way to come forward is to change how the rest of the world sees us, change what we preach about Muslim and the middle east, so that maybe they can change how they feel about us.

These events as words trigger anger and sometimes fear in me. It is a small fear triggered by words, but the words describe real events for soldiers among us. Many soldiers experience PTSD or personal trauma after returning from their time in service. When in danger, it's natural to feel afraid. This fear triggers many split-second changes in the body to prepare to defend against the danger or to avoid it. This 'fight-or-flight' response is a healthy reaction meant to protect a person from harm. But in post-traumatic stress disorder (PTSD), this reaction is changed or damaged. PTSD develops after a terrifying ordeal that involved physical harm or the threat of physical harm. The person who develops PTSD may have been the one who was harmed, the harm may have happened to a loved one, or the person may have witnessed a harmful event that happened to loved ones or strangers. It is often associated with veterans, because war is often a terrifying ordeal, but PTSD can be triggered by any disaster and does not exclude non-veterans. Soldiers often are addicted to serotonin, dopamine, and norepinephrine, which are released when you act violently. One can go through withdrawal from violence and often fall back on guilt during or after withdrawal. This guilt, when built up, can lead to depression and sometimes suicide. One of the best ways to combat guilt and PTSD is to release your story, or to let someone else carry the burden of reflection with you. My project is based on listening to veterans tell their story. So in this way I feel proud of how I may be helping each individual I interview.

Many of the 2.5 million veterans of the Iraq and Afghanistan wars have served multiple deployments, survived injury that would have killed them in earlier conflicts, and now cope with unprecedented mental and physical challenges. When they sign up to go to war, part of the deal is that the government is going to have their backs when they get home. The military is putting in place new initiatives to ease the transition, particularly as the overall force draws down because of budget cuts. And you have to highlight the needs so that the appropriate resources can be made available in Washington and get down to those people. This is the fine line, because, at the same time, this is not a broken group of people. A third are suffering from PTSD, but two-thirds aren't. And so it's a very difficult message, to talk about this group of people as a group who has some needs, but a group that can also and is also being fundamentally productive members of American society, and plowing their leadership and the other skills they learned on the battlefield into the American economy and American society writ large. Yet we still seem to treat veterans like fragile packages that need special treatment. We refer to them as 'them' as if they are a special group. In many ways veterans do need to be treated with more care and compassion, but all humans should be treated with care and compassion. The real skill that Americans need to hone is observation, Detecting if and when you are crossing the line with someone and making him or her uncomfortable. This is a skill that should be used by everyone, interacting with veterans is just another reminder of how to improve your communication skills.

You need be able to intuitively pick up on whether the person you are talking to wants to have this conversation, or if they want to talk about something else. When Andrew came back, he remembers wanting to talk to people. He remembers

wanting people to talk to him, to ask him about his experiences, to ask, "What did you do", "What was it like? What was the food like? What was the experience like? How are you doing?" "And the only questions and I got from people was, "Did you shoot anybody?" And those were the ones who were even curious enough to say anything." There's this fear and there's this apprehension that what he says will offend, or trigger something, so the common default is just saying nothing. "The problem with saying nothing is that then it feels like your service was not even acknowledged, like no one even cared." "Thank you for your service," becomes a copout phrase so that you don't have to hear the stories or trigger some hidden emotions. Andrew says that, "it rarely feels like anybody wants to sit down and really take all of that in.", that people want the cinematic version full of heroism and danger, but none of the fear or shame. To veterans, "Thank you for your service" means acknowledging the fact that just because they've now come home and taken off the uniform, their larger service to this country is not over and never will be. The memories of war will always be with them, as will the training. They will never forget how to protect our country and so will never stop doing so.

Everyone has a different reason for enlisting and I'd like to share the reasons of those I have interviewed. One of the men I interviewed blew me away with how open, honest and sincere he was. He does not want me to use his last name, but his first name is Ben. Ben came from a military family, his grandparents had been in Vietnam, his father was in the Gulf war and his mother had been a Nurse in the Gulf war. Ben signed up for the army the month after 9/11 to serve and honor his country. Andrew, like Ben, grew up into a family of military men and had an interest in joining the military, and

also like Ben, he was hurried along with the 9/11 attacks. Andrew volunteered at Ground Zero handing out supplies directly after the attacks and got the sense that he was doing something meaningful. He also recalled his grandfather's reserve on the subject of his military experiences. Andrew says, "it seemed like he'd understood something about life and been a part of something larger than himself, which felt inaccessible through other means." Chris did not come from a military family. He was also instigated to join the military by 9/11, but he had planned to join, because he was living in his mother's basement and working at a laundry mat. "My life wasn't going anywhere fast and I didn't have the money for school, or anything that could get it started. So I joined the military to pay for college." Chris's brother also joined the military, but he joined directly out of high school, instead of waiting a few years like Chris did. Carl came from a highly militarily involved family. Being the youngest of three brothers, who all went into the military and having pressure from his father, uncles and grand parents, Carl knew that the day would come when he would need to join the military, but he was never excited. Carl's father modeled parenting off Boot Camp, but Carl preferred to read in his room then go through drills with his brothers. "There was this constant sort of I guess emotional beat down from my father that, you know, I wasn't good enough, I wasn't strong enough". Carl felt that he needed to prove to his family and himself that he was tough enough, "not for them but for myself in that context or in their eyes". Marcus, like Chris, joined so that he could go to college. Marcus knew that he would go overseas with the military before he finished school. His mother was very unhappy with his decision and Marcus himself was not too thrilled, but he knew that was the only way he would get to go to college and become an engineer.

After the decision to go, the day they signed up and the first goodbyes, the men I interviewed started to doubt their decision. This doubt started in boot camp. Ben recalls boot camp as "the most horrific time of my life". In boot camp, ben was referred to, as Mr. Potato because he was from Idaho and that was all the Sargent knew about Idaho. Every morning they had to make their beds in under a minute, the beds had to be perfect, one morning another man in Ben's cabin had a hard time getting up because he was sore from being beaten the day before. Ben helped him up and got his bed perfect, but that meant that Ben's bed was not ready when the Sargent came in. the Sargent was a huge man, he picked ben up by the front of his shirt and punched him seven times in the gut. As ben tried to recover, the Sargent picked him up by the shoulders and smashed ben's nose into the metal cross bar of the bed. "They shouted too. That was the worst part cause they made you feel like you deserved to be hit. Like you weren't worth anything else." After doing all this to ben, the Sargent went over the man who ben had helped, and beat him as well. "That was the worst part, I didn't even help the poor guy!" They beat down on ben and everyone else in boot camp to the extent that there was nothing left in them. No fight, no ambitions, no thoughts. Everyone was at point zero, no one was an individual and no one had an opinion or important thought in his or her mind. "They had to do that to us, cause other wise we wouldn't have been able to actually fight." Everything was taken away from these men, as men. Once all their humanity and individuality was lost, all of the were equal, as scum under the boots of their sergeants and any man high up in rank than they. As scum, they were then shaped into the beings they needed to be in order to work as a unit and complete the tasks asked of them.

Once they finally got out on the field, most of the men I interviewed were much more excited. For a lot of them, this

was their first time outside of the U.S. Once they were deployed, they were no longer treated like scum. "We were real boys! Ha!" says Carl when describing his first week in Iraq. All the skills they had been learning for months and months finally seemed relevant and useful. Carl's military occupational specialty was a 13 PAPA, which controls fire direction of multiple launch rocket systems. He was trained to sit behind a computer in an armored tracked vehicle and inform the rocket launchers when and where to shoot. That's what Carl was trained to do, but he didn't really do that in Iraq, because they were not launch anything at the time he arrived in 2003. Their biggest mission at that time was called Operation Iron Bullet and consisted of collecting artillery rounds and rockets that had been left around Baghdad by the Iraqi army in the hurry to get out of Baghdad when it fell. Most of the people I interviewed were fighting on the lines but some were not. Chris, like Carl, also was not on the front lines. But instead of driving around Baghdad, Chris was at a FOB in Iraq in 2006. FOB stands for forward operating base which is where all the soldiers and equipment was stored as well as where all of the missions left from. Chris was trained in technician type work and so he operated the FOB missile launcher. He sat at a computer screen and monitored the sky above the FOB to identify each object that flew over it and determine if it was friend or foe. In other words he had the fate of anything flying overhead at the push of a button. The missile would launch if it detected something unless Chris told it not to launch. Both these jobs seem easier and less prone to damage the person doing them. It is true that these jobs do not entail shooting people that you can see are people or watching people around you be shot, but Chris would describe the enormous responsibility and pressure he felt and the lack of recognition from his brothers in the army with him. "I got a lot

of flack for not being an active fighter". Feeling isolated was a big issue for Chris and caused a lot of stress and depression. Chris deployed for five years and his last year was working in Iraq as a civilian parts repairman. Working as a civilian in civilian clothes outside the FOB, without the boots and a gun, made Chris feel vulnerable and lonely. He felt like he couldn't trust anyone and that everyone was against him. Chris felt alienated. This is also the feeling that most veterans feel when they return home.

Besides Carl and Chris, the other veterans I interviewed were fighting on the front lines. Ben, who was hit in boot camp, was actually told that he could not be on the front lines because his back had been messed up during boot camp. This made Ben furious. So he pleaded with his commanding officer and volunteered for every mission he could until he was put on the front line. "God sent me there to fight, so that's what I did." The day that Ben arrived in Iraq, while driving in the first convoy car down a dirt road to the FOB he was located at, an IED hit the car behind his own and exploded. The protocol was to get out of the car and walk to the hit vehicle and pull people out to take back to the FOB for treatment. That was the protocol, but the Taliban was known to put a bigger explosive near an IED that was triggered to set off a few minutes after the first explosion. "I didn't know if this was the end right here. And as I made my legs move out of the car, I knew that I would either be with God or have no legs in the next few seconds. And I prayed to either be fine or dead." War does strange things with our death perception.

Andrew spent most of his deployed time driving trucks full of found IED's and other munitions. He was driving for hours each day in a truck full of explosives, "we just felt like a target". Often they would re trace their tracks, so the

possibility of an IED on the road was very high and if he didn't spot it, then his truck and the four behind him could blow up. "It was frightening and difficult." The ever-present danger made things pop into focus for Andrew. He was the lead truck, so he was clearing a path for the rest of the load behind him. That meant pushing cars off the road and being a very dangerous aggressive driver. Andrew found that he had to shut off his imagination to make it as part of the army. "The more I imagined what could happen, the more different ways I thought I could die or fail or mess things up, and it would just turn paralyzing". So he started to tell himself that it didn't matter, that none of it mattered, "you're already dead. Just get through your job". This is where my interview with Andrew stopped. He got really quiet and wouldn't fully answer things and then finally said he had to go because he had somewhere to be. Andrew was one of the veterans who had just come back. I can't know for sure what happened, but I think he got caught up in the telling of his stories and perhaps over told past his comfort zone.

Another veteran I interviewed for a short time, named Jake was in Iraq from 2006 to 2007 and in Afghanistan from 2011 to 2012. He had some brutal stories about war but didn't have as much time to tell as the others, so in his words "we skipped to the bloody part". When Jake was young he had thought about death as fundamentally unknowable and abstract that would be understood later in life. The later in life came about in Iraq. Jake did convoy security in Iraq when lethal IEDs were blowing up all the time. Jake didn't think about the meaning of death or his own death, he thought about death in objects. Or fear of the objects that bring death. "That kind of fear disciplined the mind in a certain way that was utterly exhausting. It demanded a very narrow range of concentrated thought, all of which dealt with danger, violence

and the response to those". This produced feelings unlike other feelings that Jake had felt and so he was in a constant tense state. He had to train himself to be a constant catastrophist, to think that every rock might really be an IED. Fear preoccupied the corner of Jake's mind that wasn't being vocalized over the radio. They were trained to have highly calibrated responses to try and navigate something full of the potential for catastrophe. The actual catastrophe is referred to by jokes or avoided completely, just as it is in civilian life. It still gets down to fight or flight instincts, just in war, your fight instincts overpower flight and are heavily programmed into your muscle memory and thoughts.

The veterans I have interviewed have all lamented about how hard it is to be a civilian again. One said that out of his whole five year deployment, the six months in Iraq as a civilian held the most despair and loneliness. Another told me that in the first year after he came back to his home and family, he wanted nothing more than to go back. He missed the war. How can that be? Obviously, both civilians and soldiers suffer in war. Any sane person hates war. They hate the idea of war, don't want to be near it or hear about it. That is a natural response to war, and yet people around the world throng to the cinema and pay to watch Hollywood war movies. Somehow we are drawn to war for entertainment. "There is a ravenous appetite for the most dishonest, simplistic kind of accounts of war - and on both sides." And so there is this continuous media appetite for war as narratives of daring-do and of heroism - which Marcus says is part of it. And then there's an appetite for war where soldiers are just pawns in various political polemics. And according to Marcus, it's all for people who often to the soldier seem like they don't have any genuine interest in what it is really like. They just want to be entertained or have their opinions validated. Violence also

does something to our brains, and after a bit we are addicted to the adrenaline that violence triggers in us. If Hollywood war movies can trigger adrenaline, how much adrenaline would real war trigger? The other word I used was entertainment, from what I've heard, the only entertainment in war is combat. Ben, recalls his lieutenant walking past him and muttering, "Oh God, please someone attack us today." War becomes a source of entertainment, like our movies of violence. But unlike our movies, soldiers don't get to feel safe and happy at home afterwards. They feel the adrenalin fade and are left with all the fear that the adrenalin was masking. Fear from what they experienced, fear of the inevitability that they will experience it again, and a horrid mixture of shame and relief that they made it through the experience. So from this entire why do veterans miss being in the army, or miss war?

The answer is connection. They miss being part of something and they miss brotherhood. Friendship grows over time, the more you like someone the more you're willing to do for them. Brotherhood is entirely different. It is an agreement made by all members of the group to hold the safety of the group or everyone in the group, above your own. "I loved the people in my platoon more than myself." Ben describes the bond he felt between his platoon of 20 and himself. He described sitting in a circle with his platoon in silence at 4:20am waiting for the call to move out. They were sitting in a circle in silence because he was leading them in a prayer, leading them through the emotional battle. Imagine a bond like that, how good that must feel for a year or two, and then they come home, and they are an individual in a sea of strangers. Marcus says, "I had a certain self righteousness in the sense that I felt sharpened to danger when abroad, and then felt that dulling right after I came back. To feel myself around people who didn't even know what that was like at all,

who'd never sensed that, who didn't even know what a threat was, who just misunderstood the idea of a threat." Not knowing who they can count on, not knowing who loves them, who they can love, not knowing exactly what anyone they know would do for them if it came down to it. That's terrifying. Compared to such solitude and alienation, war is simple. That's why they miss it. So how do we mold our society into one that values connectivity and collective power over individual excellence?

I wonder if the dissonance that soldiers feel when they try and re-integrate isn't so much about something broken inside them, but more about something broken in society at large. The fact that most soldiers do miss the war is surprising to everyone including the soldiers themselves. They come back and are shocked that they do not fit into American life anymore. I think it's confusing for them. It's not confusing for me. The type of communal life the veterans I interviewed described is so different from the world I live in. American life has lost its sense of community in many ways. We have it within families and in friendships, but we don't live in any sort of communal fashion. As ancient peoples we slept, ate, etc., did everything in close proximity to other people. Now we live in tiny boxes side by side, either by ourselves, or in small groups of two or three. We have our routines and see a couple people who are our friends, but besides that we don't do anything in large groups communally. The isolation is making us miserable. Western industrial society has produced the highest rates of suicide, depression, insomnia, anxiety, loneliness, self-abuse, etc. in human history. I think soldiers come back from war, where they've had a hyper-communal connected human experience, and they're shocked at how alienating and inhuman this society is. They have this ancient human

experience and are then thrown into the world expected to function as individual alone.

Our solutions I think we come gradually. They are partially architectural, we need to bring people closer in, stop the suburbia sprawl. I think the feeling of community will grow as climate change triggers natural disasters. Catastrophe levels the field and makes community and connection a necessity. That may be why we sometimes remember the hardest times of our life as the ones that led to the greatest connection. We've been raising generations of individuals who don't know how to connect to the people around them and slowly poison themselves with loneliness. If we as a culture can come together more closely in communal groups and reach out to veterans as a genuine sincere member of society, veterans may have a much easier transition period.

YeXing Li

How Did Chinese Clothing Change?

China is an old country which has 5000 years of history. It's glamour shows on every part of its culture. Nowadays, everybody in this world wears the same type of clothes, it has made lots of Chinese have no idea what their traditional clothing looks like, although some people who are really interested in it are trying to remind the Chinese what is our real traditional clothing looks like. However, lots of people make fun of them. From the time that I saw those traditional styles, when they caught my eye and shocked me with their beauty, I have been unable to let this amazing culture be forgotten by us. Also, I want to know their history and how they changed in every dynasty. So, this is basically why I chose this topic for my research paper.

The main reason why clothing style changed is war. War ended one dynasty and started a new dynasty. In ancient China, every country had their own religion, their own language and their own clothing style. When a country won the war and started ruling the brand new country, the Emperor could not just let people continue wearing what they were used to. He also would respect their tradition, so the Emperor usually would add some characteristic from the vanquished country mixed with their own culture. Also, with the time passing, people became better at embroidery, and made those dressing look more and more fancy.

People found a tomb from the Shang dynasty(c. 1600 BC-c. 1046 BC) called Fuhao. The jade figurines of a man from Fuhao tomb show that people in that time were wearing cylinder turbans. His hair is coiled up on the top of the head under a

hoop-shaped ornament, which is actually a cap. Clothes are covered with cloud patterns and at the waist he wears a broad band, the upper part of which presses against the lower part of the collar. The coat covers the knees, and over his belt there is an axe-shaped embroidered ornament narrow at the top and broad at the bottom. This kind of ornament is the precursor of the knee cover.

In the Zhou dynasty (c. 1046 BC-256 BC), the war was provoked by citizens, because the Emperor was bad and dominating. So, the clothing style was almost like Shang, but changed a little bit. Sleeves had more styles, whole garment were made with no buttons, to be just tied at the waist by means of girdle (belt), with a jade ornament. There were two kinds of belt in that time. One is navy blue woven silk or scholar's band; when scholars went to audiences of the Emperor, the band also served as a kind of tablet. Another one was made of leather with an axe shape embroidery ornament. In this period, skill in textiles, dyeing and embroidery were very developed, and the fabric from this period used lots of red, yellow and brown.

In the Warring States Period (476 BC-221 BC), people wore the straight unlined garment. The earliest items ever discovered are made of thin soft silk gauze, brocade and silk ribbon. Some of them are embroidered in gold and silver threads. Those were the most numerous and the finest. At that time, people used a style of embroidery called "Suo xiu" which was used the "lock" method to embroider. The material for the robe was folded in half and cut into the proper shape of the front and back piece together with two sleeves, so that there were no seams to destroy the unity of the design. The width of every piece was about the same as the width of the material

itself. The characteristic feature of this kind of robe was a shawl collar having a straight extended band, which was buttoned on the right. The body, sleeves and hems were even, straight and without curve. Decorative borders were added to collar and cuffs, carried along the lapel and down the straight right hand opening of the robe. The borders around the cuffs were silk stripes of two colors.

Another style of traditional Chinese clothing was called "Ruqun", which has two pieces, with narrow sleeves, short jacket, and a check long skirt. This style was from an established group called Baidi and it became popular during the Tang Dynasty.

From the Qin dynasty (221 BC-206 BC) to the Han dynasty (206 BC-220 AD), the Quju (a spiral-shaped one-piece garment) was the most popular style. It was the highest level of dress in that period. It also is the best kind of Han's traditional clothing to show women's graceful elegance. This had another distinctive quality, departing from the usual tailoring methods of opening slits at the hems. The new approach was to sew up the front and the back piece on the left hand side of the dress. They extended the lapel of a back piece, and the lengthened lapel formed a triangle. The lengthened piece wound to the back, and the garment was fastened by tying a girdle at the waist. Some male and female figurines which were unearthed at Changsha and Yunmeng were "wearing" robes of this kind of robes.

The kimono - the traditional clothing of Japan - was derived from this design. It was usually made of soft thin materials and bordered with thick gold and silver threads at the extreme edges so as to reveal the silhouette of the dress. The more

distinguished garments had the sleeves ornamented with silk or gold threads of light or dark texture, which produced a highly ornamental effect.

Because of the Silk Road, lots of foreign exchange came to China. Emperor Xiaoming reordered the policy of clothing. Caps, dresses, boots and ribbons indicated people of different rank, thus firmly establishing the costume system of Han Dynasty. It was chiefly through the headgear that a person's social status was indicated. There were five different kinds of caps: Mian, Chang, Wu, Fa and Jinxian.

Mian was to be worn along with the official costume only by emperors.

Chang was created by the Han Emperor - Liu Bang in his youth, so it was also called "Liu's cap". It was made of green bamboo bark and worn by civil officials when they offered sacrifices to the gods.

Wu was worn by military officers at all levels on formal occasions. The imperial attendants and eunuchs also wore Wu, adorned with martlets' tails and gold ornaments.

Fa was the cap worn of judges.

Jinxian was worn by scholars, while with the wearer's rank distinguished by the number of bars which ran across the top of the cap: three bars for aristocrats, two bars for officials down to the rank of court academician, and one bar for those below.

The official custom of Han Dynasty was further characterized by the wearing of a silk ribbon. The aristocrats were accustomed to wearing not only a sword but also a silk girdle and silk ribbon attached to an official seal. The seal and ribbon together symbolized the power vested in an official.

The main type of men's clothing was robe, mostly long-

sleeved. All of these garments were divided into two types: the spiral-shaped one piece garment and the straight robe. The one-piece garment remained the formal dress for women. There was also has a kind of garment called Guiyi. It was similar to the dormer in appearance. Its front part spiraled to form at the lower end two ornamental pieces, broad at the top but narrow at the bottom. Women also wore the Ruqun, a skirt sewn from four pieces of white silk into a bell shape without decorative border.

There was also a policy about shoes. Official shoes went with ritual costumes; ordinary shoes went with court costumes; hempen sandals were for home wear and clogs for out-of-doors. During the nuptial ceremony a bride also wore painted clogs tied with multi-colored silk ribbons.

Then, in the Wei Dynasty (220 AD-280 AD), the new Emperor maintained the Han court culture, and kept their clothing style. Because of war, Emperor XiaoWen moved the capital city to Luoyang, in support of an ethnic policy called: XianBei, meaning that people from different ethnic group could get married. The Emperor also prohibited ministers whose age was under 30 to speak XianBei's language, and he required them to change their last name and wear Han's clothing. Those two ethnic groups exchanged their technology and culture, including clothing styles.

At that time, people who lived in south added some feature from ethnic clothing to the basis of the Han's clothing style. This clothing was more pretty and fit on the body. But with the passage of time, they lost the traditional style. In the northwest, many Han people started to wear the Hu fu style, which was distinguished by short jackets with narrow sleeves,

waist-band and high leather boots. It was also more colorful and more picturesque.

In this period, the main style of man's headdress was a piece of silk cloth. In the end of the Han Dynasty, some noblemen and celebrities refused to observe the court rites; they covered their head with a piece of silk cloth as a mark of elegance, and this practice continued into the Wei and Jin period.

There were two kinds of main costume in the Wei and Jin dynasties (265 AD-420 AD): the unlined and the lined. The gown was free from the restrictions of the past sleeve pattern and was quite loose at the cuffs. Especially in this period, everybody valued the loose gown with big sleeves. Because of Buddhism and Taoism, some scholars broke with the old feudal rules by wearing loose costumes and even baring their necks and chests. But here has another version to explain this: in that time, people obsessed on refining immortality. Because they think those immortality could keep them young and alive forever, but the chemical elements in these immortalities made their skin temperature hotter than normal and temperature also more sensitive. Clothes was easy to cut their skin, and made them felt hot. So they could not wear too much clothing.

Women's costumes were comprised of gown, trousers, jackets and skirt. All of these at first followed the official systems of Qin and Han but later on underwent constant change. Most of the gowns were buttoned down the front; the collar and cuffs were fringed with decorative borders. For the skirts, they were usually worn with silk ribbons fastening the waist of the wearer.

The headgear of officials in this period also had special

characteristics. The turban from the Han Dynasty was still popular, but changed a little bit: the turban was raised in the rear part to become a “leveled turban” or the “small hat.” This kind of headgear was widely accepted by different ranks of people both north and south. When a cage-like cover was added to the top of the turban, it was called the “cage hat.” This constituted the chief headdress for both men and women during this whole period.

Then, in the Southern and Northern dynasties (420 AD- 589 AD), Emperor Weng put an end to the division of the country, and established a centralized multi-national state. In the beginning, the Sui (581 AD-618 AD) rulers tried to reform the costume system according to “Book of Rites of Zhou” (Rules or policy of clothing), but as textile production had been hampered and financial and also material resources were exhausted owing to successive wars, it proved impossible to make large-scale changes. The costumes of the various nationalities both north and south had already been integrated harmoniously. In 605 A.D. Emperor Yang ascended the throne and the official costume system of the Sui was finally established, specifying different costumes for all ranks, from the Emperor all the way down to petty officials.

When Emperor Yang gained control of the country, the social mood changed. Emperor Yang was extravagant, dissipated and absurd in the extreme. He set a precedent for selecting ladies of the palace from among commoners. Those ladies indulged themselves in dress and vied with one another in adornment by decorating their hair, with strings of pearls and wearing gorgeous costumes so that their appearance became more and more colorful. The ordinary women followed suit and this situation prevailed even in the Tang Dynasty.

The Tang dynasty (618 AD-907 AD) was the most prosperous period in Chinese feudal society. Most of the changes they made were because they had really good relations with foreign countries. They made lots of culture exchanges. Changan was the political, economic and culture center of the nation. It was a world-famous metropolis and the center of culture exchanges between East and West. “The Six Code of the Tang Dynasty” records that those foreign countries which had contact with Tang during different periods numbered from seventy to more than three hundred. Residents in Changan included people of such nationalities as Huihe, Tubo, Nanzhao, even Japan, Xinluo(Korea), Persian and Arabian. Meanwhile, people frequently traveled to and from many countries like Vietnam, India and the East Roman Empire. They spread Chinese culture to other parts of the world. On the other hand, all the national minorities and the foreign envoys who thronged the streets of Changan, also contributed something of their own culture to the Tang. Paintings, carvings, music and dance absorbed elements of foreign skills and styles. The government of the Tang dynasty adopted the policy of taking in very exotic form whether of hats or clothing, so that Tang costumes were reached an unprecedented level.

In the early Tang, hair ornaments were rather simple, but during the reign of Emperor Taizong the buns got higher and higher, and the number of styles grew. In late Tang and the Five Dynasties, the high buns were often decorated with different kind of flowers. Then, women’s headdresses has several stages, from the kerchief, which covered the whole body, to the relatively revealing curtained hat and the Tartar hat that prevailed later.

The covering kerchief was made of thin transparent silk gauze, a style which was originally worn by men and women of the western national minorities. But it was no longer popular with men in the Tang Dynasty. Women wore it only when they were going far away from home and were afraid of being seen by men "en route". In the early era of Emperor Xuanzong, when the hu fu (胡服) was popularized, the curtained hat went out of use. The tartar hat, brought in from the Western Region, was mostly made of brocade and black sheep's wool. The top of the hat was slightly conical and patterned all over with flowers, some being inlaid with jewelry.

Women's facial appearance also changed. Particular attention was given to the application of powder or even rouge. Some women's foreheads were painted dark yellow and the dai (a kind of dark blue pigment) was used to paint their eyebrows into different shapes. Between the brows there was a colorful decoration called hua dian. It was made of specks of gold, silver and emerald feather. Some women painted their cheeks with motifs such as a moon or a coin and their lips were also rouged. During the year of Yuanho in the reign of Xuanzong the system of costumes changed, and women no longer applied red powder to their faces. Instead, they used only black ointment for their lips and made their eyebrows look like the Chinese character 八. Their face looks like crying.

The costume was still the small-sleeved short jacket and long skirt with waist fastened up under the armpit. During and after the heyday of the Tang, the sleeves became larger and larger and the collar was of various types: round, square, slanting straight or v-necked. There were even de'collete' collars with no underwear to veil the bosom. Lines of verse like "mistaking a half-covered bosom to remain as it is" are

reminders of this sort of upper garment.

At that time, women usually wore a lower garment. It was basically a skirt, but the texture, colors and designs as well as the adornments, were far more varied than in other dynasties. The hundred-bird feather skirt was for a time that quite popular among aristocratic women, and gave rise to the saying "Shapes of a hundred birds can be seen on the skirt". But the garnet skirt was the favorite of commoners and it remained very popular even in the Ming and Qing dynasties. Women also wore Banbi (half-covered arm). It was at first worn by maids of honors, but later became a fashion among commoners. In stricter families, women were not allowed to wear this kind of garment.

The man's costumes during the Sui and Tang dynasties consisted mainly of fu tou and robes with round collars. The fu tou is a kind of hat made of silk. The four corners of the fu tou were purposely cut into ribbon shapes. Two of the ribbons were tied up at the back of the head, so that they hung free while the other two were first folded upward and then tied together at the top of the head. The robe with round collar was the main style of men's costume during this period. Most robes were made of fabric woven with veiled-pattern designs and in different colors to show the rank of the wearers: birds for civil officials and animals for military officers. This method of differentiation gave birth to the embroidered square patched of the later Ming and Qing Dynasties.

Clothing in Song dynasty (960 AD-1279 AD) is almost the same as the Tang dynasty. In 961 A.D, the high-ranking scholar Nie Cengyi presented his "Three Protocol Graph" memorial to the throne. It requested a revision of the costume regulations,

which was subsequently authorized by the Emperor. This graph contributed much to formulation of system for the ceremonial costume and looked upon as the blueprint for restoring the traditional dress system.

In Tang and Song dynasties, Futou(turban) became the men's chief headgear. Except when attending sacrificial rites or important court sessions where coronets must be worn, people from the emperor down to the all the officers, generally wore turbans. There were two "feet" which were stuffed on the back of the turban, which were stuffed with supporting wire, string or bamboo strip, mounted with satin and gauze, and bent into various shapes. Those were called "straight feet", "curved feet" and "crossed feet". The straight feet was mostly used by emperors and officials, curved feet and crossed feet were used by attendants, various public servants and messengers.

Men's dress in the Song dynasty was still mainly the robe with round collar. Robes were usually worn by officials, except on such occasions as sacrificial rites. Different color of robes had different meanings: purple and crimson robes must have "fish pockets" of gold and silver hung across their waists. The pocket was first used to hold a "fish tally," like a fish-like ornament made of copper used as a proof of identity for officials in central and local governments. The "fish tally" also was the pass for entering and leaving the palace gate and city gate. It was three Chinese inches long, and cut into two halves: one was kept in the central government, and the other in the local government. In the case of promotion, correspondence between the two halves of "fish tally" was necessary as evidence. According to the regulations of the Tang dynasty, all officials above the fifth rank were granted fish pockets to hold their tallies. Although the "fish tally" was no longer in use by

the time of Song dynasty, the fish pocket was not discarded.

The hair style of women in the Song dynasty still followed the fashion of the later period of Tang dynasty, the high bun being the favorite style. Women's buns were often more than a foot in height. Some young women's buns were combed into a heavenward style, as shown in the colored statue of court attendants in the Holy Mother's Palace inside the Jin temple in Taiyuan, Shanxi province. Some fashioned into switch buns of various shapes, coiled directly on top of the head. This was called "coronet of special buns". In some rich families, women usually had hairpins and combs made into the shape of flowers, birds, phoenixes and butterflies to be pinned on top of the buns.

Women wore a "head cover" when they went out. It was called Mi li (a kind of turban). Women also wore this on their wedding day to veil their faces. The veil should be gently lifted by the emissaries of the bridegroom's family to reveal the "flowery face." This convention lasted through the Ming and Qing dynasties.

The upper garments of women consisted mainly of coat, blouse, loose-sleeved dress, over-dress, short-sleeved jacket and vest. The lower garment was a skirt. Women from the lower class usually wore a jacket; coats were generally wore in winter and blouses in summer. The blouses were generally made of silk or satin. The over-dress was the ordinary dress for women in the Song dynasty. The short-sleeved upper garment and waistcoat were fundamentally identical, being the costume for commoners. Both of them had a front opening, but the former had sleeves while the latter was sleeveless.

Women's skirt included the "garnet skirt", "the "double butterfly skirt" and the "embroidered satin skirt". Some aristocratic women would dyed their skirts in tulip juice. Skirts emitted a gush of fragrance, which accounted for their great popularity. The style of skirts underwent some slight change after the Northern Song. The width of most skirts increased more than six-fold and there were fine ruffles in the middle, it was called "a hundred folds" or "a thousand folds". The color of upper garments was usually a combination of quiet, mixed colors, such as light blue, whitish purple, silver grey and bluish white. Skirts were used strong colors like green, blue, white and yellow.

In this dynasty, women wore boots, since binding the feet had become fashionable. Women had shoes made of satin or silk and embroidered with lots of designs.

After the Song dynasty, China was split to three parts: Liao, Jin and Yuan (1271 AD-1368 AD). These three dynasties were chiefly national minority regimes, established respectively by the Khitan, Nuzhen and Mongol tribes, all of them were originally inhabitants of the northern parts of China. The economic and cultural exchanges they conducted with the Han people were also reflected in their costumes.

Liao was controlled by Emperor Taizu. It was in the north, and only armor was worn in court. When the Khitans marched south into the territory, they came under the influence of the Han people and consequently also set up regulations for costumes. There were two systems: the emperor and officials of Han birth wore Han costume; the empress and officials of Khitan birth wore Kjitian costume.

According to Khitan customs, men shaved the crown of their heads, leaving only a little hair for ornament at the temples and over the forehead in a straight line, others let the hair at the temples hang loosely to the ears and still others trimmed the side tresses into specific forms and let them flow freely on either side over the shoulders.

Robes were the made from of dress for both men and women, nobles and commoners. The emperor wore white silk at sacrificial rites and a green flower patterned tight gown for ordinary occasions.

The costumes of Jin in the main followed the system of Nuzhen people, but official dress took over the Liao traditions. The hair style were totally different than Liao: Men wore long hair plaited and trailing over their shoulders. Women coiled up their plaited hair into buns, older women like to cover the buns with a black hair net, on jade ornaments which were pinned in a random arrangement.

The daily wear for men were black turban, circular-collared robe, jade belt, gold or rhinoceros horn and black leather boots. Women liked to wear jackets of black, purple or dark reddish color, with dark purple skirts to match. The jackets were usually straight collared and buttoned on the left hand side. Red and yellow ribbon held the skirt at the waist and hung freely down to the wearer's feet.

In Yuan, because of their poorly developed economy and culture, people expressed simplicity in their clothing. Mogols also wore their hair in plaits, but in different ways. They first parted their hair in the middle of the crown to form a cross, then shaved the hair on the back of the head, trimmed the hair

in the front into many shapes and let it hang naturally over the forehead.

Men born into the Han dynasty followed these rules: working costumes for officials were matched with turbans. The turban was made of lacquered gauze and had two tails stretching out on either side. Commoners wore a turban styled according to personal preference.

The robe was again the predominant costume in the Yuan, but was much broader than the Liao robe. The robe was also the main garment for Mongolian women, and was mostly buttoned on the left hand side. The cuffs were tight, and under the robe over trousers were worn that had neither waist nor crotch, but simply trouser-legs tied to the belt. Han women continued to wear the jacket and skirt. But the choice of darker shades and buttoning on the left showed Mongolian influence.

Zhu Yuanzhang, who created Ming dynasty (1368 AD-1644 AD) ended the split of China; the rules and regulations for costumes set by the Yuan were abolished, and instead now followed the custom of the Han people.

Men's turban style consisted mainly of the black gauze cap, the net turban, the quadrangular flat-topped turban and the six-in-one cap. Officials in Ming dynasty were wearing black gauze caps during routine court sessions. The clothing of men marked a revival of traditional features, and the gown was their favorite costume. Officials required the wearing of coronets or caps and formal costumes. In some important ceremonies, all the officials were required to wear coronets with stripes and costumes of red satin. Ranks were distinguished by the number of stripes mounted and the kind

of ribbon worn on the girdle.

For men, government servants of lots of sorts wore lacquered cloth coronets adorned with peacock plumes. Round their waists the men wore knitted girdles of red cloth. Lower status constables wore small caps, blue garments with outer waistcoats of red cloth and blue knitted girdles. The rich merchants wore dresses made of silk and satin, and carefully avoided being too conspicuous by restricting their choice of color to blue or black.

Women's hair style were the same as during the Song and Yuan dynasties. Young women also wore hair clasps. Clothing of women in Ming dynasty consisted mainly of gowns, coats, rosy caps, over-dresses with or without sleeves and skirts.

After Ming dynasty, China was controlled by the nation of Man. The emperor rules people could only wore Man's clothing and Man's hair style. It almost made Han's traditional clothing disappear. It also cause many Han people nowadays still think that Man's clothing were their traditional clothing and think that Han's clothing were Kimono or Korean traditional clothing. I want more people to know our culture unless don't garble them.

As we can see, clothing plays a very important part in Chinese culture. It is hard to only use those words to explain its charms. I want to try my best to let more Han people to know our real traditional cultural, unless to have a since of our cultural, do not think this is just a joke; to let other ethnic group to know more about Han's cultural; to let everybody knows that here has a Chinese ethnic group called Han, and its connotation is unique.

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Owen Markel

Farming Fish the Right Way: The Future of Food

Imagine a wild salmon swimming against the strong current of a river then rocketing up a waterfall with its sleek, silver, muscular body catching the sunlight. After two years in the ocean, this fish is returning to its birthplace to spawn, having defied the odds of survival. Now it is back, on the last stages of an arduous journey, just one more waterfall to go, by no means an easy task for a tired fish. It's moments like these, in which we can see an important part of an incredible life cycle, that the thought of wild animals cooped up is almost heartbreaking. However, throughout the world animal farms are deemed necessary by many to supply sufficient amounts of fish to the world's human population now and for the future without overfishing oceans, seas, rivers or lakes. This is a fate salmon face as well, to be raised on farms, in net pens or tanks instead of living their lives in their natural environment. They are hindered from completing their iconic journey because of dwindling wild populations of fish worries involving world hunger issues. The worry involving hunger issues is due to the fact that today many people around the world are starving, and with a growing population there is a concern as to whether we can produce more food. Whether it is necessary or not, farming is being done not just for the present, but also for the future when these issue are predicted to rise up.

By the year 2050, the human population on planet Earth is expected to reach upwards of nine billion. That's two billion more than live on earth today. This means there will be many more people who need food, and especially reliable sources of protein. Modern agriculture produces fruits, vegetables and grains, which can be consumed by people and animals or

processed and then consumed by people and animals. Animal farms produce meat and dairy products (great sources of protein), again, to be consumed by people or processed and then consumed by people. Both types of farming will soon be hindered, due to limited sources of petroleum, freshwater as well as limited amounts of farmland. Agriculture relies on petroleum for machine fuel, fertilizers, pesticides, herbicides and fungicides, and the issue with this is that petroleum is limited (even now nature's supplies are dwindling), so the extraction becomes more damaging and the usage already is damaging to the environment. Agriculture also relies on freshwater for hydration, while animals rely on agriculture for feed. So less agricultural production means less food for the animals. (*Bernstein, Sylvia - Aquaponics Gardening*)

Limited resources not only hurts food production throughout the world, it affects global economies and communities. The less petroleum there is the more expensive and unaffordable it becomes for farmers, so not only can food production go down, but also farmers must increase the food prices to accommodate for the raised petroleum prices. With everything so intricately connected, one small change can set off an entire chain reaction of social issues, so problems with food (a product that is vital to human life) can hurt a large part of our world. An increase in agricultural prices for instance can lead to major environmental issues such as the search for Earth's "reserve" stocks of water and petroleum, which would be done by digging deeper and deeper into the ground. The effects of one change in the operation of world markets, not just for food, can turn areas of the world to chaos. For instance, in January of 2011, a rise in global food prices (due to limited petroleum and freshwater) added some fuel to already existing riots in North Africa, which were caused by different issues.

These riots got so intense that they eventually led to the flight of the president of Tunisia. This is an example of a negative effect brought upon the world by agriculture's reliance on limited resources. Another issue with limited resources is that some foods have become unaffordable for families to buy. This doesn't include your €39/lb. chicken that is pumped so full of hormones it can't even stand on its own two feet, but rather includes wholesome, healthier options. Consumers are supplied more readily with mass-produced, pesticide-sprayed food (which is cheaper because a lot of this type of food can be produced at once). Instead, it is the cheap, unwholesome food is the only stuff affordable for some people, because so much of this poor-quality food can be grown so quickly. The herbicides and pesticides added to these plants kill weeds and make the crops less susceptible to pest-related infections and diseases, so if a pest hits a large area of farmland, the unsprayed plants may die off and the sprayed plants won't be. In modern agriculture most crops are sprayed. Unsprayed (organic) crops are less common and more expensive. This is due to other reasons than just the fact that they grow more slowly. To be certified organic by the United States Department of Agriculture (USDA) costs money and can be anywhere from a few hundred to several thousand dollars depending on the size of the farm and the amount of food produced. Also, no added pesticides and herbicides means that more manual labor is required to do the work that the chemicals would do, and of course these workers need to be paid. Other reasons that these foods are more expensive are that organic farmers may use more expensive fertilizers, may take more care to not contaminate the food and the fact that the demand for organic food is greater than the supply. Fresher, wholesome foods are not as readily available as unwholesome foods. A large portion of the produce we consume comes from

halfway around the world and is not as fresh, because in local markets around the world, the food is more expensive. Even if something is sprayed and inorganic, as long as it is fresh, local and sold in a farmer's market for example, it seems to cost more money. The farms that distribute all around the world are absolutely enormous, grow an enormous amount of food, and have very cheap labor. The produce and meat sold at local markets comes straight from the farm, which are a lot smaller and labor costs are higher. So despite all the shipping and handling involved, large farming companies from, say Brazil, can afford to sell their produce for cheaper than a farm in, say Portland, Oregon, that is selling goods at as farmer's market. *(Bernstein, Sylvia - Aquaponics Gardening)*

Besides the concern as to whether the world will be able to produce enough wholesome food to sustain an enormous human population, there are issues that arising right now. As the world has developed and the technological revolution has seemingly connected us all, there is an increased demand for a higher standard of living, especially in regards to food, an essential to keep people living. People in various places want what people in other places have. In a different way of looking at the situation, the lower class wants what the higher classes have. This can include the seemingly endless supplies of meat, bread and fresh fruit and vegetables that can't grow naturally all over the world. *(Bernstein, Sylvia - Aquaponics Gardening)*

And in fact there's no reason some people shouldn't be able to get a certain type of food that others can. By living in the USA, it seems that I can get any food I want, even if it comes from half way around the world. With countries on different continents (and even the same continent), they can't seem to get certain things. With this demand for an increased standard

of living, meat is quickly becoming a very popular option for many people who don't have it readily available. This increased demand puts more and more pressure not only on global agriculture, but global animal farms as well. In order to meet this increased demand for meat without overhunting or overfishing, farms appear to be the best resort. They can produce sufficient amounts of meat without exterminating wild populations. Most livestock farms produce large amounts of waste and pollution and take more than a pound of feed to produce one pound of flesh. This feed conversion ratio of livestock ultimately leaves a negative impact on the environment. High feed conversion ratios rely a lot on agricultural production, and because intensive agricultural production sucks up plenty of Earth's resources to feed the human population, it is less sustainable when providing for livestock farms. This is where aquaculture comes in as a potentially more environmentally friendly form of animal farming, at least in terms of reliance on agriculture. *(Bernstein, Sylvia - Aquaponics Gardening)*

Fish and other marine animals are very popular and a somewhat plentiful food options. People value seafood for a number of reasons: flaky and buttery meat, fresh taste, and health benefits such as omega-3 fatty acids, vitamins and minerals. It is also valued for its low prices and large supplies. In addition, it looks highly unlikely that we will cut down on fish intake, making fish farming necessary in order to not overfish our oceans, seas, rivers or lakes. Evidence of decline in wild populations can already be seen with the salmon, cod, sea bass and tuna among other fish.

According to the World Bank, aquaculture is predicted to produce almost two thirds of the world's seafood by 2030, so

clean, healthy ways of operating farms should be carefully looked at. In this essay, I intend to explore current issues surrounding aquaculture, and look to how it can be used to meet global demand for meat protein in a way that is environmentally sustainable.

* * *

Aquaculture is probably the most efficient form of animal farming. Fish have some of the lowest feed conversion ratios (food required for one pound of body mass) among animals meaning they don't require as much food and are therefore better at converting food to body mass as opposed to converting all their food to energy. The ability to live underwater and float (particularly in farms) does not require fish to take part in energy consuming activities such as standing, walking or running. Along with needing less energy for movement, fish are cold-blooded and therefore don't need as much energy to keep themselves warm. Because of these traits, fish are extremely efficient at converting feed to muscle as opposed to using it all for energy. This makes them a relatively inexpensive meat option for farms to produce.

Animal	Feed Conversion Ratio lb. feed / lb. body mass
Fish	1.5 : 1
Poultry	2 : 1
Pigs	4 : 1
Cattle	7 : 1

Sheep	8 : 1
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(Bernstein, Sylvia - Aquaponics Gardening)

Low feed conversion ratios are important for animal products when taking the future into consideration, due to the low amounts of resources of water and petroleum that are expected to be available. Despite minimal reliance on agriculture, however, aquaculture operations can leave negative impacts on the environment in other ways. The feed that marine animals require is a good place to start. For one thing, the feed is too dependent on protein from smaller aquatic animals (such as krill, anchovies and sardines to be ground up into protein and oil rich fishmeal). There are two problems with this method: One, it defeats the purpose for aquaculture (by overfishing wild populations). Two, it removes food from natural predators. Fish feed is also fairly expensive. Currently, scientists are working on alternate non-fish based feed sources. Alternate foods can come from plants (soybeans and grains), animals (poultry meat and bones) and even yeast and bacteria. This is being done while looking at how to make the feed sustainable, because at the rate with which aquaculture is growing and the demand for feed is increasing, alternative fish feeds are vital to the health of the environment and of the fish. Many scientists propose that fish don't need fishmeal to survive, as long as they receive the nutrients and oils it contains. For this reason, alternate reasons should be possible. Dr. Rick Barrows of the U.S. Department of Agriculture has fed trout a mostly vegetarian diet, with no drawbacks to the quality and quantity of meat produced. The difficulty with replacing fishmeal lies in the lack of oil, which is made up from algae that fish eat. Some scientists are working on omega-3 extractions directly from algae. Despite the progress being

made in this area, there is a lot of work to be done to provide healthy, sustainable fish feed.

(<http://www.ars.usda.gov/is/ar/archive/oct10/feeds1010.htm>)

Another big issue surrounding aquaculture and fish feed is the concentration of polychlorinated biphenyls (PCBs) found in the fish meat. PCBs are toxic, organic chemical compounds used in electric insulators, coolants and flame-retardants. They have been shown to cause cancer in animals and produce difficulties in the immune, reproductive and endocrine systems of animals. PCBs find their way into natural water sources where they are absorbed by microscopic plankton, a big food source for fish. PCBs are not only found in wild populations of fish. In 2002, Pew Charitable Trusts, a US non-profit organization, commissioned the largest study ever of farmed and wild salmon. The research was lead by Ronald Hites of the University of Indiana, where flesh of salmon from around the world was examined. These studies showed higher levels of PCBs in farmed salmon than in the wild salmon. This is due to the fact that PCB levels increase the higher up the food chain they go, and that PCBs concentrate better in fatty tissues. The more PCB containing plankton that is eaten, the more concentrated PCBs become in the plankton's consumer (smaller fish). When these smaller fish are consumed by larger, carnivorous fish, the PCB levels show much higher. However, wild salmon and farmed salmon have different diets. Wild salmon feed on small crustaceans, whereas farmed salmon are fed fish pellets, which consist of ground up fish, and the ground up fish, are higher up on the food chain than the small crustaceans consumed by wild salmon. Also, farmed salmon have about 9% more fat content than wild salmon, and because PCBs concentrate better with more fat, most farmed salmon would naturally have a higher PCB concentration.

(Greenberg, Paul - Four Fish, pages 51-55)

The following sections discuss the advantages and disadvantages of offshore and onshore aquaculture, as well as possible solutions to the current disadvantages possessed by each method.

Offshore Aquaculture

Offshore aquaculture is the practice of raising marine animals in natural bodies of water. One method is to raise fish in net pens in a natural body of water. This allows fish to get some of their nutrients from a natural environment. This in turn can cost less and leave less of an impact on the environment, since it requires lower amounts of animals harvested from the bottom of the food chain. However, net pens raise other issues. When multitudes of fish are packed into one tank, they can easily collect sea lice and other diseases. If a net pen packed full of fish becomes infected, the disease can spread outside the pen and infect the wild fish population. This can ultimately lead to death of populations, and a loss of investment and food supply. Furthermore, the treatment of an infected pen can introduce antibiotics into the wild populations, killing the healthy bacteria within those fish. Other issues with net pens include the loss of escaped fish and increased algal bloom, which can lead to habitat loss, poor water quality and reduce the amount of oxygen in the water. These are problems that are very persistent. However, if offshore aquaculture is done properly, these problems can be worked with. *(Bourne Jr., Joel - National Geographic, How to Farm a Better Fish/ Greenberg, Paul - Four Fish)*

Open Blue, an aquaculture company in Panama, keeps massive cages eight miles offshore that can be filled with more than one million cobia, although unlike most fish farms, Open Blue has their cages stocked at a low density. With these cages in the open ocean, natural currents and waves wash right over them, as opposed to protected inshore pens that get minimal current. This is done on purpose, with the idea that the constant water movement will cleanse the pens, and help to avoid pollution and disease. As well as avoiding pollution and disease, the fish waste gets spread around as nutrients for malnourished plankton. So far, Open Blue has been very successful in keeping diseases out of their net pens away from wild fish, while thriving from a business standpoint and providing good fish. *(Bourne Jr., Joel - National Geographic, How to Farm a Better Fish, page 103)*

Stephen Cross of the University of Victoria in British Columbia has created a polyculture at an aquaculture research and development facility off the Canadian coast. In this polyculture system, he only feeds one species of fish, sablefish in net pens. His polyculture has a natural filtration system consisting of cockles, oysters, scallops and mussels sitting in hanging baskets and sugar kelp all down current from the net pens, and below the pens, sea cucumbers rest on the ocean floor. The cockles, oysters, scallops and mussels act as the first step in filtration by consuming organic waste produced by the sablefish. The sugar kelp gets whatever the shellfish miss and convert the remaining waste to plant tissue. The sea cucumbers below collect the remaining, heavier waste that falls to the bottom. The only work that needs to be done is the feeding of the sablefish and the harvesting of the fish, cockles, mussels, oyster, scallops, sea cucumbers and kelp. Stephen Cross's polyculture produces healthy, diverse foods and keeps

the water healthy and clean while doing so, making it a sustainable fish farm. (*Bourne Jr., Joel - National Geographic, How to Farm a Better Fish, page 110*)

Another aquaculture farm called Veta la Palma, located on an island in the middle of the Guadalquivir River in southern Spain, is seemingly the most sustainable fish farm I've researched. Having originally been a marshland, this area was drained to raise cattle, and then re-flooded to become a fish farm in 1982. Veta la Palma is unlike any fish farm you'll come across. The water is brought in from the Atlantic Ocean (at high tide) via the Guadalquivir River and channels (originally built to drain the land), and then let back out (at low tide) through the same channels. As with most natural bodies of water, the Guadalquivir River is polluted, so when the water is channeled in, it still contains pollutants. However, when the water is let back out, it filters through the aquatic plants and leaves farm cleaner than when it was initially pumped in. At Veta la Palma, native fry (harvested from the farm's eggs) are kept until they reach acceptable size, raised on a diet of algae (also harvested from the farm). Once released, the farmers do not feed the fish a thing. Instead, they eat the natural supplies of plankton, micro algae, and small crustaceans that feed off of the plankton and micro algae. When the fish reach proper size, they are harvested by the farmers to be sold. The aquatic animals are healthy, clean and disease free, and live in the most natural, sustainable conditions that can be found on a fish farm. Not only is the contained ecosystem at Veta la Palma an ideal environment to raise native sea bass, mullet, meagre, shrimp and eel, it is also a sanctuary to more than 250 species of birds. Prior to becoming a fish farm, the area of Veta la Palma was home to only about 50 species of birds. Head biologist Miguel Medialdea, an expert in relationships, says

that having the birds constantly around shows that the system is balanced thriving, even if it means losing 20% of fish, shrimp and eggs each year. Despite the loss Veta La Palma endures, the farm produces 1,200 tons of fresh, clean, healthy fish each year. This is the type of fish I would want to eat.

(<http://www.brownetrading.com/products/fresh-fish/veta-la-palma-seafood/>)

http://www.ecoagriculture.org/case_study.php?id=77

<http://www.ted.com/talks/>

[*dan barber how i fell in love with a fish*](#))

Onshore Aquaculture

Onshore aquaculture is the practice of raising marine animals in tanks onshore. The attraction and advantage with onshore aquaculture operations is due to the ability to have a controlled environment. Offshore operations can come with diseases and death, so in a controlled area provided by being onshore, the diseases can be treated without having the worry of spreading antibiotics to wild populations. This will leave a smaller impact on the world's natural aquatic ecosystems. Despite this advantage, however, these fish farms still leave an enormous impact on the environment. For starters, more feed is required because the only nutrient source the fish have is the feed that the farmers give them. In natural bodies of water, some of the nutrients are already in the water. As discussed above, more manmade feed is a negative. Onshore aquaculture requires an immense amount of water to be pumped in and a lot of energy to keep the water moving. This is necessary to emulate the activity of water in oceans, seas, rivers and lakes. Not all the water is filtered and recirculated, so every day new, waste free supplies of limited water must be pumped in and the waste filled

water (ammonia and fish waste) is pumped out to sewage plants. This is a very expensive technology.

Blue Ridge Aquaculture is an indoor fish farm in Virginia. There only 85% of the water is recirculated and the energy used to power the system comes from a nearby coal plant. Coal plants are some of the largest producers of carbon dioxide and the way the coal is mined is an entirely different story. Currently, Blue Ridge Aquaculture is not an environmentally friendly fish farm. Looking toward the future, president Bill Martin hopes to eventually recirculate 99% of its water and turn the methane waste into green energy. This is a great idea. A controlled environment, clean energy and minimal water waste to go along with abundant, disease-free food production sounds wonderful. Yet there is still an issue here. This is a long way from happening, and to continue to operate the way Blue Ridge is operating is not a sustainable or healthy way to produce fish. (*Bourne Jr., Joel - National Geographic, How to Farm a Better Fish, page 100*)

Solutions

Currently, there are advantages to both onshore and offshore aquaculture. Each method has valid arguments that can be taken into consideration when discussing which is better. Both types of aquaculture can have negative impacts on the environment; both can produce unhealthy fish that aren't fresh, and both can be helpful in producing food for a lot of people not only locally, but also around the world.

Altogether, aquaculture has issues. Whatever they may be they should be looked at as concerning issues to be fixed. The extensive farming of Veta la Palma, the wilderness operation of

Open Blue or the inventive filtration system of Stephen Cross's polyculture should be looked at as prime examples of how fish farming can be done sustainably while maintaining a natural, wild habitat. Veta la Palma is a one of a kind fish farm. The ideal would be to have a bunch of farms emulating Veta la Palma spread throughout the world, producing fresh, clean, healthy fish as well as cleaning the water and providing a good habitat for other wild animals to thrive. Unfortunately this does not seem very practical. How many businesses would be willing to let around 20% of their fish get eaten annually? Even if it means producing such healthy food, it doesn't seem as though many people would be up for that. This is because from a business standpoint it is completely illogical, and today, even though there are serious threats to the environment, it seems anything will be done for those extra dollars.

One method of sustainable fish farming that has not yet been discussed is called aquaponics. Aquaponics is a combination of hydroponics (growing plants in water) and aquaculture, so not only do these systems produce fresh fish, but they produce fresh vegetables, herbs and fruit as well. Aquaponics is an onshore farming practice, and as discussed before, onshore aquaculture is a large producer of fish waste and water waste. However, water usage is an area in which aquaponics really excels. Only a very small percentage of an aquaponics system's total water volume needs to be added on occasion, due to evaporation into the plants and minimal waste removal. The water in an aquaponics system gets circulated fish tank to grow bed, pumped out of one and into the other and cycles around. The waste produced by the fish gets pumped along with the water to grow beds and provides rich nutrients for plants. In turn the plants gather up these nutrients and purify the water, which is pumped back to the fish as "good as new."

Aquaponics uses about half the water used in agriculture, and it produces fresh fish to go along with the fresh vegetables. The University of the Virgin Islands (UVI) operates their own aquaponics system, and uses about 187,775 gallons of water. Calculations done have showed that the system at UVI can produce the same amount of lettuce that is produced through traditional farming techniques per year, while also producing 11,000 pounds of freshly farmed fish. What makes this so incredible is that UVI's aquaponics system uses less than half the amount of water that traditional farming uses.

Aquaponics has minimal drawbacks considering the amount of resources many other onshore aquacultures and agricultural practices use. Yes, there is water used in aquaponics systems, yes there is fish feed needed to feed the fish, but when compared with the amounts of waste almost any other farming operations produce, there is a very small impact left on the environment. Going forward, aquaponics looks to be a very viable option. The idea and reality of these systems seems almost too good to be true, and if not producing enough food is a worry for the future, large scale aquaponics farms would be a good solution for producing sustainable, wholesome farming that is considered extremely vital to the well being of the current and future population. As to why this is not already happening is beyond me, because not only is there a wonderful opportunity to grow fresh food, but it seems like a wonderful business opportunity as well. Today, with income such a vital part of many peoples' lives, there appears to be a lot of money to be made. *(Bernstein, Sylvia - Aquaponics Gardening)*

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Despite issues surrounding food production throughout the world, it seems as though there is more than enough calories to give the world population the necessary nutrition to survive. It doesn't seem as though the world is running out of food any time soon, but there seems to be this lingering worry in the back of many people's minds that Earth won't be able to feed nine billion people. The problem doesn't exactly lie in the production of food, but rather the distribution. How many extra calories a day do I, as an average American consume? There are days when I've probably doubled my necessary daily caloric intake by myself, while entire families elsewhere, even in my home city, didn't even get a third of their necessary caloric intake. There's a deeper, underlying problem behind the way the world's food is distributed, the amount a privileged individual gets to eat versus entire families, and the amount of food thrown out on a daily basis.

I would argue that yes, farms are necessary to produce sufficient meat protein to meet the world's demand, but there should not be a worry about whether the earth can produce enough. The more and more people try to produce, the more the human race will end up damaging the environment, the one necessary for us to survive. Already today, Earth has some of the hottest temperatures on record, some of the most severe storms on record. It's the impact of the way that food is produced for the nine billion people that we should be worrying about, the impact on the earth's temperatures and forests and nature reserves that should be the most worrisome.

In order to continue to produce without hurting the planet as much as we do, we should look toward ancient practices; ingenious, inventive ideas that do little harm to the earth. During the Tang dynasty, Chinese farmers created a

polyculture of carp, pigs, ducks and vegetables (the inspiration for Stephen Cross). The manure from ducks and pigs was used to fertilize algae, which was consumed by the carp. The carp were then put into flooded paddies where they would eat pests, weeds and fertilize the plants, and then be ready for consumption themselves.

We should look at the past when thinking about the future, the polycultures of the Tang dynasty. If this can be done in addition to looking toward new ideas, such large-scale aquaponics systems, other sustainable polycultures and more Veta la Palma-esque farms, the Earth should be able to provide enough fresh meat protein as well as vegetables and fruits to sustain the predicted world population. Of course it wouldn't mean any immediate fix (let's face it, fish farming won't be fixed), but these are necessary steps to be taken to improve upon aquaculture's current methods, because the current sustainable methods are few and far between. If the world can learn to farm while protecting the environment, and distribute properly what every human being has a right to, which is healthy, wholesome food, the world should be okay. I don't need all the food that I consume, and chances are neither do you. There should be enough to go around. The world is something that needs to be taken into consideration a little more often than is the case, especially when we talk about something like food. As part of the human race, we need to consider the well being of others, not just ourselves, because the world won't be able to survive that way. People won't get enough food, environments will become unhealthy (worse than today), economies will falter and communities will falter. The idea of the chain reaction will come into global effect, and not just in a few areas.

If we hope to survive, hope to produce enough good food and help out the environment as best we can, we should work on doing just that. We need to start doing our part to take care of the place that takes care of us. The world can continue to take care of us if we look after it, and if the future of food stems from taking those extra steps to take care of the world, we should all be a part of it. There should be nothing holding anyone back from doing what is not only right for the planet, but what is necessary for the planet and the life it sustains.

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Inian Moon

The Magic of Music

Sing me a song. Simple, complex, whatever. When it comes down to it, the ability to create something out of nothing, no matter how deep or shallow, is quite magical. It holds a certain resemblance to casting a spell. All great musicians start out as learners and grow into wizards, capable of so much more than a simple tune. Great songs cause a reaction inside of the listener, usually regarding around emotions. Melodies and lyrics suddenly hold the power to bring us to tears, to make us smile, or even to make a bad day better. What the genre is hardly plays a role, considering music taste vastly varies depending on the individual, but the underlying concept is the same. Music holds feeling, and great music causes feeling.

Life is weird. Everyone is living it all the time every second of every day, every hour, every minute. It's no mystery that uncertainty lingers around our heads along with excitement, intrigue, stress, and every other human attribute. Sometimes things get so confusing that every-day words no longer hold the power to make sense of it all. This is where self expression comes in to the rescue and where art becomes therapeutic. The truly beautiful thing is that both the writer and the listener are granted the healing powers of creation. Compositions about love are some of the most common due to the magnetism revolving around the manner. It is easy to get caught up in love because it manages to hold all the feelings and emotions imaginable inside one big ball of beautiful pain. Somehow this is desirable to our human hearts, primarily because it fills us up from head to toe which in many ways is a satisfying occurrence. Something so consuming acts as an oil fire for a songwriter, and regardless of if there is a lacking, longing, or

thriving influence, creation takes place of flames.

Revolutionary music becomes revolutionary because it inspires people and moves something inside of us. This can certainly be tied in with love. However, songs written about change tend to delve deeper into the human psyche and stir up a certain excitement, intrigue if you will, inside of our stomachs much stronger than the likes of lovebugs and butterflies.

Beginning in the 1960's a new movement emerged in the world of music, a movement fueled by the combination of unjust wars, social changes, and the freedom of spirit inspired by a new drug culture. The artists who popped up to help lead this movement were some of the greatest visionaries of the time. Music has a way of leading the way during times of change, and there was no time that lived up to this better than the 1960's. Some of the most important creative voices for this change were the Beatles, Bob Dylan, Simon & Garfunkel, The Grateful Dead, and Nick Drake. Each of these bands or individuals, in their own unique way, helped to lay down both sound and lyrics that were revolutionary, helping to inspire people and society to look at themselves the world around them in a different way. Interestingly, one theme I have discovered in the songs of these legendary artists is the theme of loss and gain, that by losing or letting go of some part of our lives we make way for a new and even more important part to arise. In this paper, I will look at a song of each of these artists and show how this theme is expressed.

If you were to ask a mass of people which rock n' roll band they thought to be the most influential and revolutionary group of all time, it is likely that a majority would agree on The Beatles, with their experiences of living weaving in with the music they wrote so closely. Young, strong willed, feisty John

Lennon. Vastly influenced by the almighty king of Rock N' Roll, Elvis Presley. Lennon was born on October 9th, 1940 in Liverpool. He formed a band in his late teens called The Quarrymen and on July 6th, 1957, Paul McCartney joined the group. Within the year George Harrison had been recruited by McCartney and the name changed to Johnny and the Moondogs in 1958. By 1960 they were called The Silver Beatles and a few months later the Silver was dropped, Beatles changed to Beatles, and thus legendarily became The Beatles. During the same year the band traveled to Hamburg for the first of four trips. On February 1st, 1961, the band played a show at The Cavern Club on Mathew Street and proceeded to perform around 300 times over the following year. During this time they were discovered by Brian Epstein who worked hard to land them a record deal. Nearly every record label in Europe rejected the band but in May of 1962 George Martin signed The Beatles to EMI. Their current drummer Pete Best was then asked to leave to group and was replaced by Ringo Starr on August 16th of the same year. "Love Me Do" and "P.S. I Love You" became their first two singles to reach the top 20 on the music charts. In 1963 "Please Please Me" rose all the way to number two and on February 11th they recorded their debut album under the same name in one ten hour recording session. By mid 1963 they were on their first national tour and "Beatlemania" had begun. After the tour they moved to London with Epstein and began to require bodyguards due to the fact that they were constantly being mobbed by their adoring screaming fans. Late in the year "She Loves You" became the biggest selling single in British history. In April of 1964 Can't Buy Me Love became their first record to top both the British and American charts.

It is interesting to see how drugs affect the songwriting process as one of the forces sparking creativity in the 1960's, differently depending on the different drug and person. During the early days at the Cavern Club, when Benzedrine and Preludin was introduced to their routine. They were often running on little sleep and so to stay awake and upbeat they would take these drugs. The pills lead to dry mouths and so alcohol was then added to the mixture, making for some wild shows. Lennon was more keen to substance than the others, but they all partook. A few years later, the band was introduced to Bob Dylan. Promptly after arriving at their suite he proceeded to roll a joint and pass it to Lennon who passed it to Starr saying, "My royal taster." Ringo never got the memo to pass it along and so Dylan rolled more for each of them. Considering they had never had a previous encounter with marijuana The Beatles spent the rest of their night in hilarity, which Dylan found quite amusing. Meanwhile McCartney was having a realization that he was "thinking for the first time, really thinking," and instructed Mal Evans to follow him around with a notebook writing down everything he was saying. After that night their music changed, becoming more mellow and thoughtful. As expected the uppers they took during their early years produced a more energetic sound than the swaying melodies of their THC days. At the end of the year The Beatles starred in their first movie, A Hard Day's Night, raising 1.3 million dollars in its first week in theaters. In 1965 the band was on world tour and HELP! was simultaneously filmed in England, Austria, and the Bahamas. Apparently they were stoned on set for some of the filming and often forgot their lines. The exact date of the first time the group tried LSD is not known, but it is estimated to be around March or July of 1965. Their dentist John Riley had them over for dinner and slipped it into their coffee without telling them. Once they figured it

out they went out to a nightclub, feeling a bit strange about staying at the dentist's house. "We'd just sat down and ordered drinks when suddenly I feel the most incredible feeling come over me. It was something like a very concentrated version of the best feeling I'd ever had in my whole life. It was fantastic. I felt in love, not with anything or anybody in particular, but with everything. Everything was perfect, in a perfect light, and I had an overwhelming desire to go round the club telling everybody how much I loved them - people I'd never seen before." States George Harrison in Anthology.

Beyond their experiments with drugs, or perhaps partly because of them, the Beatles were great musicians and songwriters. They rose to fame in the blink of an eye and their music continued to evolve and grow as they did. On August 15th they played a show in New York City at Shea Stadium to 55,600 fans, setting the record for the largest concert audience of all time. On October 26th the Queen of England awarded The Beatles as Members of the Order of the British Empire at Buckingham Palace. Lennon returned his medal in 1969 as an anti-war statement, but apparently the honor itself cannot be returned. In 1965 Rubber Soul was released showcasing these changes. The music held more poetic and political lyrics which only increased their fan base. More complex and obscure melodies and instruments were added to their writing. Just look at songs like Norwegian Wood, "Strawberry Fields Forever," and of course "Lucy In The Sky With Diamonds." It is no mystery that the band was experimenting with psychedelic drugs at this point in their careers. McCartney even stated his experimentation of LSD to a news reporter. The effects of these drugs profoundly changed their music, which is shown in both the lyrics and the scores of their songs. In June of 1967 Sgt. Peppers Lonely Hearts Club Band was

released after taking four months and 75 thousand dollars to record. The album remained number one on the charts for 15 weeks and sold over 8 million copies. On June 25th "All You Need Is Love" was released to the public with an audience of 400 million due to television. In 1968 McCartney's "Hey Jude" was released topping the charts at number one as well as Lennon's "Revolution" at number 12 which sold over 6 million copies by the end of the year becoming their most popular single. The artistically written White Album was then released just as Two Virgins by John Lennon and Yoko Ono was released. This created a bit of an uproar but in 1969 they attempted to smooth over their differences. During the same year Abbey Road was released and became their best selling album, at 9 million copies. On January 30th a rooftop concert was held at Apple Corps Headquarters which became their last public performance as The Beatles, and memorialized in Let It Be released in 1970 and basically documented the band's breakup in tunes and melodies.

By the end of the 1960's, the Beatles had decided to go their separate ways. 10 years later on December 8th Lennon was shot four times outside of his apartment building, The Dakota, in New York City, and was pronounced dead upon arrival at the hospital. There is a memorial across the street in Central Park with the words "Let It Be" honoring his life and all that he brought to this world. In 1994 Lennon was inducted to the hall of fame as a solo artist by McCartney who gave a beautiful speech in the form of a letter to John. In 2000 The Beatles became the highest certified act of all time due to the fact that over 113 million albums were sold in America alone (reaching 170 million by 2008). On November 29th, 2001 George Harrison passed away from lung cancer after pursuing a spiritual solo career. The Beatles Anthology became number

one on The New York Times bestsellers list. In 2006 George Martin and his son Giles produced the mix CD LOVE for Cirque du Soleil where the songs melt into each other wonderfully. McCartney and Starr still perform from time to time, and there is always a good turn out. What a whirlwind. So much music in so little time, and it hardly stopped once the band split up. Of course there were no more tours, no more shows, no more movies, but all the documentations of their fame continue to swirl through the world and to spread inspiration long after their downfall, continuing on to this very day.

"REVOLUTION" To this day, one of the songs that the Beatles are best remembered by is the song Revolution. There were two versions of the song recorded in 1968. The faster single version was released after the slower album version, residing on The White Album. Around the time that Lennon wrote the song protests against the Vietnam War were intensifying and increasing, particularly among University students. "Revolution" was written to address these issues that were coming up all around the world. In the refrain of the song, Lennon reiterated the lyric, "You know it's gonna be alright," an expression of his philosophy that inner change was the first step to outer change and so more important than political change which can be rather out of grasp. Here Lennon was saying that by letting go of outer ideas of change that the real work of inner transformation could happen. This was not necessarily a new idea but had seldom been addressed in the music industry. The idea was revolutionary idea, a magical idea. Some analyzers believe that this lyric came from his meditation experiences in India but it feels to me as more of an underlying phenomena than some spiritual epiphany. This does not deny that the meditations did not bring these ideas

into clearer light, and it is said that the lyric was invented to convey that spirituality will overcome the human race no matter what happens politically. No matter how much we mess up this earth, ultimately things will be ok, almost as if there is hope in destruction. The line also shows optimism in a tricky situation. With the flow of the music and the lyrics the message that sometimes change requires great patience is brought to mind. Considering the song is political it brought up both criticism and praise alike, as all politics tend to do. "Revolution" was written to get something across to humanity, to cause a reaction, and that's what it did. Even in the darkest and most desperate times, even when life feels impossible and pointless, we just have to face our minds and remember that positive change can be achieved, there is still hope, and that no matter what, it's gonna be alright.

As the Beatles were transforming the world of music in England, one the most influential voices in American music was gaining popularity. On May 24th, 1941, in a seaport city called Duluth in Minnesota, Robert Allen Zimmerman was born. As a freshman in high school he formed a music group called The Golden Chords and in 1959 went to study music at the University of Minnesota. He began performing solo at coffee shops under the name Bob Dylan and had his name legally changed in August, 1962. Dylan decided to move to New York City in 1961 to meet Woody Guthrie, his idol, who was sick and hospitalized. Dylan paid Guthrie many visits, and learned some things about folk while he did so. That April he opened at The New York Gardens and was signed by John Hammond to Columbia Records and produced his debut album in 1962. The album was titled Bob Dylan and although it only held two original songs it caught the attention of the

public. He had a gift for songwriting and wrote poetic topical songs about politics, love, and the state of the world.

Like the Beatles, the drugs of the '60s had some influence on the life and work of Bob Dylan. As far as his personal drug use, it is hard to say because the worst source for Dylan's biographical past is often Dylan himself. He had a way with words, and also a way of twisting them and creating elaborate stories. Dylan claims that he kicked a heroin addiction when he first moved to New York. "I got very, very strung out for a while," he says in excerpts released by the BBC. "I kicked the habit. I had a \$25 a day habit and I kicked it." Although this is still uncertain it is absolutely certain that Dylan smoked marijuana, and occasionally took uppers to keep him going while he was on tour for years. As mentioned earlier, perhaps Dylan's most important drug moment was introducing cannabis to the Beatles, which inspired them to create even more interesting and complex compilations.

As an artist, Dylan was influenced by the giants of folk music on whose shoulders he stood and whose tradition he brought into the music scene of the 1960's. Folk songs have been passed down orally throughout history. The music is best when shared, and shared it is. In 1963 *The Freewheelin' Bob Dylan* was released, containing songs like "Blowin' In The Wind," "A Hard Rain's Gonna Fall," and other poetic protest songs that would become classics. Among these tunes was "Don't Think Twice, It's Alright." The song was recorded on November 14th, 1962. During this time Dylan's lover, Suze Rotolo, had decided to prolong her stay in Italy, which is definitely visible in the lyrics, especially when he sings about his lover "wasting his precious time." Folk songs have a long lineage of being passed down through their singer. The melody

of "Don't Think Twice" came from an old song called "Who's Gonna Buy Your Chickens When I'm Gone" and was taught to Dylan by a folksinger named Paul Clayton who had used the melody in his own song called "Who's Gonna Buy Your Ribbons When I'm Gone." Dylan used some of the same concepts that the lyrics of Clayton's version held. Dylan was an amazing guitar player, and this song really showcases his talents with its fast finger pattern woven together with a beautiful chord progression.

"DON'T THINK TWICE": This well known song is one of Dylan's all time classics. The lyrics are about losing a love, and how even though it a difficult situation to be in, it will be alright. Here we see Dylan exploring the theme that by letting go of some idea of something, in the end, it all turn out alright:

"It ain't no use in turnin' on your light, babe
That light I never knowed
An' it ain't no use in turnin' on your light, babe
I'm on the dark side of the road
Still I wish there was somethin' you would do or say
To try and make me change my mind and stay
We never did too much talkin' anyway
So don't think twice, it's alright"

There it is again, that underlying despair laced with hope, a desperation seemingly cured by no longer thinking about the troubles of love, and a longing to be alright. It's that point of an ending relationship when the protagonist is doing their best to move along with their life, while simultaneously being half stuck in the mud. Do we assume that the speaker means what he says? The quirky word choice is definitely somewhat sarcastic, but underneath that it does feel that he is saying his

truth. Even the steady folk rock beat gives a feeling of honesty to the song. In 1963 Joan Baez took Bob Dylan on tour and the two became lovers. By 1964 Dylan was playing around 200 concerts a year. During the same year *The Times They Are A'Changin'* was released and number twenty on the charts. Dylan and The Beatles also met around this time, and there we have the legendary story of him introducing them to marry Jane, as is shown above. In 1965 Dylan shocked his fan base by releasing *Bringing It All Back Home* with a full rock n' roll band as backup, which was rather unheard of in the folk world. The album reached number six on the charts. Not everyone took a liking to his music, for everyone has different taste, but his lyrics can be appreciated world wide. When "Like A Rolling Stone" was released it became Dylan's first major hit, climbing the charts all the way up to number two. From 1965 to 1966 Dylan continued to revolutionize both rock n' roll and folk music with his unique songwriting abilities. His lyrics lead to analytical discussions and debates. They were thoughtful and poetic and he never felt the need to explain himself. Dylan was a witty man who could turn an interview completely around so that he became the one asking the questions. In 1966 his world wide record sales topped 10 million.

On July 29th, 1966, Dylan got into a nearly fatal motorcycle accident and spent nine months recovering, writing with The Band as he did so. In 1968 he re-entered the performing world. During this time he composed "All Along The Watchtower" which was epic enough for Jimi Hendrix to cover. What about the release of *Blonde on Blonde*? In 1970 he released *Self-Portrait* at number four and *New Morning* at number seven, which were quite different than his older work. Throughout the 70's he continued to write and his style continued to change. In 1979 *Slow Train Coming* went platinum and landed

Dylan his first Grammy. As the decade passed he continued to shock and blow away with his audience with his wide range of musical talents. From 1987 to 1989 Dylan And The Dead toured the country, playing some very legendary shows. On the same year that the tour ended Bob Dylan was inducted to the Rock n' Roll hall of fame. The French named him *Commandeur dans l'Ordre des Art et des Lettres*, their highest cultural honor. At the 1991 Grammy ceremony he was presented with a lifetime achievement award and on the 30th anniversary of the release of *Bob Dylan*, Columbia Records put together an all star concert at Madison Square Garden in New York City where George Harrison, Neil Young, Eddie Vedder, Tom Petty, Eric Clapton, Johnny Cash, Lou Reed and Dylan himself performed. What a show it must've been. After the show he wrote two more albums and throughout the 1990's continued to compose while bringing back all his classics. Bob Dylan has continued his career into the 21st Century, still writing and touring, and is the oldest rock n' roller to still be making new popular albums. All the cigarette smoking have caught up with his voice, but he still has that soul, and will always be a great legend of rock n' roll and folk music.

Another hugely influential voice in American music was the dynamic duo of Simon and Garfunkel. In 1941 both Paul Simon and Art Garfunkel were born in New Jersey. The two met when they were eleven years old and began singing and harmonizing together by the time that they were thirteen. Their angelic voices became popular throughout their town and in 1957 they were signed by Big Records under the name Tom and Jerry. Their first record sold around 150,000 copies but due to the fact that their follow up work was not so successful the band split up. In 1962 Garfunkel was studying Architecture after trying to record under the name Arty Garr

and Simon was studying English literature but mainly song peddling for a music publishing company. In May of 1965 Simon recorded a solo album in London. Months later he received word that "Sound of Silence" was number one on the charts in America. Upon hearing the news he returned and recorded a second album with Art Garfunkel. The combination of Simon's poetic songs and Garfunkel's angelic voice became popular among people of all age groups. The music was both relevant and intelligent. Themes noticed in their work tend to revolve around love, the beauty of nature, and poetical political ideologies. <<Explain? By 1966 Wednesday Morning, 3 A.M., Sounds of Silence, Parsley, Sage, Rosemary, and Thyme plus four singles were all on the top 30 charts. "Homeward Bound" at number five, "I Am A Rock" at number three, and "Sound of Silence" at number one. Bookends was released in 1968 as their fourth studio album. In 1970 Bridge Over Troubled Water was released after two years of recording. Both Simon and Garfunkel had been working on solo projects during the time and in 1969 their only public appearance together was on their own television network special.

After their record release they split up to work full time on their solo projects. This was intended to just be a break but ended up being a breakup. Their music was peaking just as they went their separate ways but they still played together occasionally. Bridge Over Troubled Water reached number one and stayed on the charts for a year and a half, spending ten weeks at the top, and selling 13 million copies worldwide. The LP won six grammy awards. Now over 20 million copies have sold in America. Although Simon and Garfunkel had a falling out when Simon was inducted to the Rock n' Roll hall of fame he showed hopes for them to become friends again, or at least be on good terms. In 2003 they were given a lifetime

achievement award due to the inspiration their beautiful music had spread throughout the world. Later that year they embarked on a "Old Friends Tour" which turned up a great amount of fans. They ended the tour with a show at the Colosseum in Rome with an estimated audience of 600,000, even larger than their Central Park audience. Today their music is still around and is regarded highly influential, especially in the folk music world.

"AMERICA": America was written by Paul Simon and released in 1968 on Bookends. On the surface the song tells a story of two young lovers hitching their way across America, in a search for "America." The song was inspired by a road trip that he took with his girlfriend Kathy Chitty in 1964. America is somewhat of a protest song, indicating his search for a lost America, meaning the true America had disappeared. The song begins filled with optimism and a longing for adventure, an innocence. Pete Fornatale interprets the lyrics as, "A metaphor to remind us all of the lost souls, wandering the highways and byways of mid-sixties America, struggling to navigate the rapids of despair and hope, optimism and disillusionment." However it feels to me that Simon was not focusing on one individual problem, but America as a whole. All of the corruption, inequality, and detachment from nature building up into something bigger and lacking of the ideal America. He hasn't lost hope but he tells the tale to show us that we must find "America" and that it is not going to find or fix itself. The musical feel of the song has a pace that starts out quiet and even a little melancholy, and then builds in energy. It holds the sound of hopefulness in hopeless situations, which is a very admirable quality in both humans and music alike. Just because something is lost doesn't mean it can't be found.

"So I looked at the scenery,
She read her magazine;
And the moon rose over an open field.
"Kathy, I'm lost", I said,
Though I know she was sleeping.

"I'm empty and aching and
I don't know why."
Counting the cars
On the New Jersey Turnpike,
They've all come
To look for America."

Fifty years ago a rock band was formed in San Francisco named the Grateful Dead. Its most famous member, Jerry Garcia, was born on August 1st, 1942, and began playing guitar at the age of fifteen. After spending 9 months in the army he moved to Palo Alto where he met Robert Hunter who would become the band's lyricist in the future, as well as great friend. Garcia bought a banjo in 1962 and joined a folk/bluegrass band along with Bob Weir, Ron Pigpen, and Bob Matthews. In 1965 Bill Kreutzmann and Phil Lesh joined the band and the name was changed to The Warlocks. Lesh brought electric instruments into the music compositions and soon they were hired to play shows for the Ken Kesey Acid Tests. Here was another time when drug culture influenced music in a very big way, considering that at the time LSD was still legal and parties were held to test out the effects of the substance. Owsley Stanley, the chemist of LSD, ended up financially supporting the band. It was also around this time that their name changed. Garcia is quoted saying in Blair Jackson's book on the Dead, "One day we were over at Phil's house... He had a big dictionary. I opened it and there was

"Grateful Dead," those words juxtaposed. It was one of those moments you know, like everything else went blank. diffuse, just sort of oozed away, and there was GRATEFUL DEAD in big, black letters edged all around in gold, man, blasting out at me, such a stunning combination. So I said, "How about Grateful Dead?" and that was that." The band name is also associated with a passage from the Egyptian Book Of The Dead:

"We now return our souls to the creator,
as we stand on the edge of eternal darkness.
Let our chant fill the void
in order that others may know.
In the land of the night
the ship of the sun
is drawn by the grateful dead."

From 1966 to 1967 the band lived as roommates at 710 Ashbury St. in San Francisco and played so often that they became regulars at The Avalon and Carousel Ballrooms and The Fillmore West. Every aspect of the band has severe talent and intrigue. Garcia's magnetic guitar skills practically set the room on fire, Lesh held it all together with his bass, Hunter's magical lyrics, and Weir's wonderful stage presence and humility. Warner Brothers signed the band in 1967. They recorded their debut album, Anthem Of The Sun, in 1968 and Aoxomoxa in 1969 which left the band 100,000 dollars in debt. However their reputation was spreading and on August 16th, 1969 they performed at Woodstock. It was the summer of love and their music helped to spread the peace movements around the world. In the beginning of the 70's The Dead payed off their debt to Warner Bro's by creating three inexpensive albums that

sold a lot of copies: Live/Dead in 1969, Workingman's Dead in 1970, and American Beauty also in 1970.

"RIPPLE": The 6th track of American Beauty, "Ripple," was written by Robert Hunter in London. On the same afternoon he wrote "Brokedown Palace" and "To Lay Me Down"; supposedly after drinking half a bottle retsina. Garcia wrote the music to "Ripple" and the combination is absolutely beautiful. The song is done acoustically which adds to its warm qualities. If the song were a color it would be golden, not just because of the first few lyrics, but because of the overall feel. The lyrics are written poetically and as a metaphor that relates to life and the way we live.

"There is a road, no simple highway,
Between the dawn and the dark of night,
And if you go no one may follow,
That path is for your steps alone.

Ripple in still water,
Where there is no pebble tossed,
Nor wind to blow."

Sometimes life can get us down. Bad things happen to good people and everything seems unfair. However in times of great desperation there comes an opportunity for self growth, self empowerment, and positive change. It all depends on how you look at it. This is all up to the individual for everyone will handle things differently. The underlying moral of the song is that you have to start somewhere, and once you do life opens up to you in more ways than you could even imagine. And Garcia adds, "You who lead, must learn to follow." Such advice shares the theme of letting go of one thing to find another more

important one, this time reminding us that if we let go of pride we find the more valuable gift of being humble. The music to Ripple is in its own way humble music, with a sing-a-long chorus full of "la la la las" that everyone is encouraged to join in on. With everybody singing together, the differences between people go away and everyone feels like family, and this is healing.

The Grateful Dead's following continued to grow as well along with their touring schedule and by 1973 the group had become its own highly profitable corporation and so they were able to break away from Warner Bro's and Grateful Dead records was founded. The same year Pigpen, the band's keyboardist, passed away due to liver disease induced by heavy drinking. In 1974 the band temporarily split up for members to focus on side projects but resumed touring in 1976. One of the more epic performances of The Dead took place in 1987 at the base of the Great Pyramid in Egypt. After releasing two live albums for their 15th anniversary the band took a break from recording until 1987. During the space between The Dylan And The Dead tour took off. However in 1985 Garcia's drug habits brought up complications and problems. He was arrested in Golden Gate Park, San Francisco, for possession of Heroin. After fifteen months of treatment he fell into a five-day, nearly fatal diabetic drug induced coma. Luckily he recovered and with the release of In The Dark in 1987 they recorded their first top ten album.

The Deadheads are almost as famous as The Grateful Dead themselves. Following the band around on tours all over the country for sometimes years at a time, they were some of the most loyal fans around. They were generally a peaceful, drug loving, skirt wearing, spinning crowd of hippies and free lovers. However their drug use began to wreak havoc in 1989.

This resulted in The Dead publicly requesting that they be more responsible and take care of themselves so that no other people would get hurt. Through the early 1990's Garcia was having major health problems and their tour had to be postponed for a year. On July 9th, 1995, Jerry Garcia played his last show with The Grateful Dead. One month later on August 9th he died in his sleep at a rehabilitation center where he had been battling with his Heroin addiction. Four months later the band retired and it became the end of an era. The band members have kept the music alive. Bob Weir and Phil Lesh formed Furthur, recruiting John Kadlecik from The Dark Star Orchestra as one of their leads, seeing as his guitar skills and singing voice hold an eerie resemblance to Jerry Garcia himself. The band is named after the Ken Kesey Furthur bus and to this day they still tour the country, causing the spirit of The Dead to live on. The Dead is undead. It is miraculous how much The Grateful Dead has brought people together, and how their legacy still lives on through their music.

Nicholas Rodney "Nick Drake" was born on June 19th, 1954. He took after his mother with his love for music and the two had a similar sense of fatalism in the lyrics they wrote. Drake both learned to play piano and to compose at an early age; songs which he recorded on a reel-to-reel tape recorder. In 1957 Drake attended Marlborough College, where his family ancestry had also attended. His schoolmates thought he was confident, "quietly attentive," and rather aloof. Nick Drake was a hard person to get to know. He formed a band from 1964 to 1965 where he played piano, saxophone, and sang. As his love for music began to grow his academics began to decline. In 1965 Drake bought his first acoustic guitar and became mesmerized with open tunings and fingerpicking techniques. In 1967 he attended the University of Aix-Marseille in France

where he began to really practice and attentively focus on his guitar. He would earn money by busking with friends and it was also around this time that he began to smoke marijuana. It is likely that he experimented with other drugs, like LSD, during his time in Aix, due to hallucinogenic song lyrics. After Nick Drake returned to England, in February of 1986, he was discovered playing a gig in Camden Town by Ashley Hutchings. He introduced the 25 year old musician to Joe Boyd who worked at what was then licensed as Island Records, a very influential company on the folk scene. After Boyd listened to Drake's first four-track demo he knew that he was something else and called him in saying, "I'd like to make a record." Drake stammered, "Oh, well, yeah. Okay." He was a man of few words. Conflicts and clashes came up during the recording of his first album, *Five Leaves Left*, when it was noted that Boyd believed in using the studio as a tool while Drake enjoyed a more rough and organic sound.

The album made its debut in 1969. Nick Drake was not fond of public speaking, and because of his introverted nature was not all that charismatic. He was also a very secretive person. His sister stated that she did not even know he was recording an album until one day he walked into her room and said, "There you are," threw the album on her bed, and walked out. When it came to concerts Drake never had an easy time. Folk singer Michael Chapman stated: "The folkies did not take to him; they wanted songs with choruses. They completely missed the point. He didn't say a word the entire evening. It was actually quite painful to watch. I don't know what the audience expected, I mean they must have known they weren't going to get sea-shanties and sing-alongs at a Nick Drake gig." So here we have it, the beautiful genius and highly misunderstood, Nick Drake. He was disappointed by his first album's debut

and so ended up changing things up for his second album, *Bryter Layter*, recorded in 1970. It was less bleak, less Drake, more mainstream, but still beautiful. He was trying to capture an audience, the attention of people, even though he rarely played live. It is suspected that Drake was using heroin during this time, which only darkened his mental state. The album sold less than 3,000 copies with mixed reviews. Drake fell into a depression and was prescribed anti-depressants. By the winter of 1970 he was smoking unbelievable amounts of marijuana and had withdrawn himself from people, hardly leaving his flat except to play an occasional concert or to buy drugs. "This was a very bad time. He once said to me that everything started to go wrong from this time on, and I think that is when things started to go wrong," said his sister. Nick Drake was disappointed with the outcome of his records, but he was also disappointed with life in general. There is an underlying tone of desperation in his music, especially inside the melodies of his third and final album.

Island Records Label was never expecting a third album, and although legend says that he dropped off the tape at the reception desk without saying a word, the truth of the matter is that recording took place over two nights on February 25th, 1972. *Bryter Layter* seemed to full and elaborate to Drake's senses and so for *Pink Moon* he simply and stunningly accompanied himself with just his guitar. The album's song list is short and only lasts for around 28 minutes. Some described the subtle songs as bleak, but there is complexity in simplicity. The music is beautiful, melancholy, and stirs up emotions inside of your insides. Connor McKnight from *Zigzag Magazine* wrote, "Nick Drake is an artist who never fakes. The album makes no concession to the theory that music should be escapist. It's simply one musician's view of life at the time, and

you can't ask for more than that." Despite the beauty and promise of the album Drake refused to take part in any promotional arrangements. He was impersonal and drug-induced anxiety had taken its toll. After the album's release he moved back home to live with his family, living rather sporadically and although his surroundings were stable, he was unstable within his own mind, distancing himself from those who cared for him. His family did all they could but when someone is as far out of touch with themselves as Drake was, there is little you can do to help. Signs of improvement made for hopeful days, but in the night between November 24th to 25th, 1974, Nick Drake passed away at home in Far Leys, from an overdose of his prescribed anti-depressants. It is still debated as to whether this was purposeful or accidental. The lyrics, "Now we rise, and we are everywhere," as sung in the song *From The Morning*, were engraved on his tombstone. In the years after his death his music began to gain popularity and by the mid 1980's bands like The Cure and R.E.M. were crediting him as highly influential. The first biography of Nick Drake was published in 1986 and by the end of the 80's he was appearing even more in the press, referenced as "the doomed romantic hero." Drake became somewhat of a mystery, which only increased the intrigue. The compilation album, *Way To Blue*, was released in May of 1994 and sold 100,000 copies. Documentaries, tribute albums, news articles, and his original works grew more and more well known. 30 years after his death his first two songs reached the top of the charts. His albums have thus been included in the top 100 ever written on multiple occasions since. Nick Drake died before his prime and therefore never had the chance to see how his music touched the world around him with so much beauty.

"PLACE TO BE": Nick Drake was obsessive about practicing his beautiful guitar techniques and would often stay up through late or early hours experimenting, something most musicians can relate to. His mother said that she thought he wrote his loveliest songs in the earliest hours. Drake took a huge liking to open tuning and all alternate tunings in general. His lyrics are poetic and hold an innocence to them, but a knowledgeable innocence. Music wise he was magical, and mysterious. The lyrics to "Place To Be" begin by playing with the naivety and comfort in being young and goes on to the desperation, darkening, and confusion of growing older and experiencing the strange and sometimes unsettling beauty of life. Like the other artists discussed, he speaks of letting go, letting go of the innocence of youth and being willing to try, at least the best he can, to grow into a willingness "to clean up the place." The last line states the weakening feeling of needing someone in such a way that causes the listener to almost feel what he himself was feeling. He captures the simplicity of life's beauty and confusion and darkness in a beautiful tune accompanied by guitar played in open D tuning. In a way the open tuning reflects to openness and vulnerability of the song itself. The music holds a certain swooping melancholic feel to it that in many ways reflects Nick Drake's personality. It is quite genius really, how the music manages to reach through your skin and swirl around your heart. The song is short, beautiful, and complex and in a way mirrors many aspects of Nick Drake's life.

"When I was younger, younger than before
I never saw the truth hanging from the door
And now I'm older see it face to face
And now I'm older gotta get up clean the place.

And I was green, greener than the hill
Where the flowers grew and the sun shone still
Now I'm darker than the deepest sea
Just hand me down, give me a place to be.

And I was strong, strong in the sun
I thought I'd see when day is done
Now I'm weaker than the palest blue
Oh, so weak in this need for you."

So here we have it, five great bands/individuals who each in their own unique way inspired thousands to look at themselves more deeply, to open up an option of willing to let go of old ideas and to accept the possibility that change, as hard as it is, offers opportunity. The desperation clouded by longing with a pinch of just enough hope thrown into the pot. Sometimes inspired by drugs, and sometimes depressed by them. Having something to relate to can be a huge help when your walls start to close in or your feet are thrown towards the sky. Human interaction can help, for sure, but nothing comes close to the comfort in blasting the perfect song. You could be happy or you could be sad, you could be laughing or you could be screaming, and as that one tune enters through your ears and reaches your heart it begins to untie the knots and make you feel whole or even happier than you were before you pressed play. Music is not just for the terribly depressed, the wounded, the heartbroken, but also for the happy, the hopeful, and the intrigued. Granted music is a wonderful form of self medication, but it can also be used recreationally. Regardless of the writer's intention of the song, where they were when they wrote it, who they wrote it for, none of that really matters because the listener is free to interpret the song however they see fit. No idea is better than the next.

Great music does not come from the head, but from the heart and the soul, the head is merely a vessel. Great music does not lie, it is honest and clear, it is pure. Great music takes expectations and turns them into dust, throwing your thoughts all around your head in the best way possible. This is one of the many things that makes music magical. In reality many things are hard to understand, are tainted, are scarred... but music washes away the pain, the ignorance, the troubles, and creates a peaceful stability inside of us that cannot be duplicated. The vibrations seep into our senses and soothe our whole bodies. Music calms, music breathes, music heals, and that is true wizardry.

Atticus Rice

Advanced Baseball Statistics: Remodeling Them and Their Use in Today's Modern Game

Baseball has been around in our world in one form or another for what many believe is about 150 to 200 years. However, some evidence exists that can trace games with similarities all the way back to the 1300s in Western Europe. From those many stick-and-ball games emerged, including rounders¹, stoolball², cricket, and, of course, baseball.

When the game made its way across the Atlantic it was being played by working men in their neighborhood parks and by school children out in the crowded streets alike. Americans everywhere couldn't get enough of the glorious game. Then in the mid-1850s the love for baseball in the country accelerated and it hit the Big Apple.

By 1856 the popular game was first referred to as America's national pastime and just one year later the National Association of Base Ball Players was formed, the sport's first governing body. The Association was composed of sixteen teams around the New York City Metro Area. The Association became the first in the sport to not only govern the on-field playing rules, but to govern official scoring. On top of this it also ruled as to what type of game was being played between two teams (common game, championship, etc.). This distinction as to report the official score and happenings of the game was one of the first steps in using the then recently created "box score." In 1869 the first truly professional team was created by the name of the Cincinnati Red Stockings. They played their first season against teams just under their class – amateur and semipro – and ended it undefeated. Two years later the National Association of Professional Base Ball Players was created which lasted just four years from 1871 to 1875.

Throughout this time the game was advertised and developed throughout the country, spreading its influences to more than just the Northeast's big cities.

As baseball grew in popularity, the style of play, rules, critics, and analyses grew with it. All across the nation, various people were adding in their taste and preferences to the game, whether it was from the point of view of a fan, journalist, or player. One of the most influential contributors to this was none other than "The Father of Baseball,"³ Henry Chadwick.

Chadwick was born in Devon, England and quickly worked his way into the American baseball world, writing and editing guides sold across the country that allowed fans of all types to educate themselves on the quickly rising game. Through his involvement he earned his title of "The Father of Baseball," one that went largely uncontested.

Although most of his work was done through writing and stat-keeping, Chadwick did influence the style of play as well. For a while baseball had a rule known as the "bound rule." This made it so that any defensive player on the field could catch a ball off the first bounce off the field that had just been hit by the batter⁴. Chadwick offered as much criticism as anyone would listen to of this rule for many years, and, in 1864, it was eventually removed from the game for balls in fair play, but remained for balls hit in foul territory⁵.

While many thank him for his work with the "bound rule," Chadwick is credited with creating the first box score for the sport. Very similar to the one used in cricket matches at the time, the box score first appeared in 1859 as a very simple display. Like today, it consisted of a grid with nine rows for players and nine columns for innings, set up so that each player line could correspond with a spot in every inning column.

Alongside his box score, Chadwick is credited with inventing a few of the popular statistics and abbreviations used in today's game. Perhaps one of the more peculiar ones is his use of the letter "K" as the notation for a strike out when scoring the game, one which he took from the last letter of the word "struck" in the term "struck out." He also was the first to assign numbers of one through nine to each defensive position for scorekeeping purposes, something that modern statisticians and scorekeepers would be asking for if not already implemented today. The statistics that Chadwick is given credit for are very popular ones, including batting average and earned run average. However, his first batting average model made it so that walks were charged as errors to the pitcher. Upon later examination of the game he removed them from statistics entirely. Earned run average was created with the goal in mind of measuring which runs came from the batter's skill and which runs came from the lack of fielding skill, something that has shifted quite a bit in the game today. Why was this an important distinction? What was the goal of this discrimination? What element of the game was he trying to isolate in the numbers?

With all of Chadwick's hard work set in place and the game growing in cities across the nation, the country's national pastime was set to take off to wow another century with its unique style of play in the freshly minted MLB, or Major League Baseball.

As the game evolved throughout the 1900's, so did the statistics used, and before one even knew it, statistics were flying all over the place. Surges here and there provided the stepping stones for scorekeepers, fans, managers, and even players to begin to keep all sorts of stats, using them to nit-pick at who was the best player for each position in a particular

scenario. These stats are largely split into five different categories: batting, baserunning, pitching, fielding, and general.

Batting statistics include anything that the hitter has control of such as types of hits, walks, outs, and averages for any of the previously mentioned. Baserunning statistics are used to keep track of, well, baserunning. Anything from a stolen base to being caught stealing to scoring a run is put into this category. Pitching statistics might be some of the most extensive out there and include the type of pitch thrown, the outcome of an at bat, the number of runs they allow, and many more in between. Fielding statistics can be very controversial sometimes as they rely heavily on whether a botched play made on a ball can be considered an error or not. Depending on this, where discretion is completely up to the official scorer, fielding stats include errors, assists, and types of outs made on the field, as well as ratings. Lastly, general statistics can be anything as simple as the number of games a player has played to as complicated as the formula to calculate wins above replacement, a stat used to determine whether or not a player should be at their position in the MLB.

Most of these statistics make quite a bit of sense. For example, keeping track of singles, doubles, triples, and homeruns is just a natural part of the game. Same goes for walks, strikeouts, and the like. Both for the hitter and pitcher, keeping track of these stats is something that has been done for ages and something that can be done with much ease. All that needs to be done (at the very least) is to make hash marks under a player's name in the corresponding category and you have yourself a stat sheet. Even for something like keeping track of balls and strikes thrown (or received) and what type of pitch it was can be done with this same method, assuming one

can correctly see the difference in the types of pitches being thrown. Even with just this small bit of basic information, lineups and projections can be made as to how players will perform in-game.

These basic statistics are accompanied by more advanced ones such as batting average, on base percentage, slugging percentage, wins above replacement, and the like⁶. In today's modern game the latter, more advanced statistics, are more commonly used for ranking players in-game as well as in general. These in-game rankings can come in the form of anything as common as the starting lineup all the way to which pinch-hitter to use and when to use him. In general looks to answer questions like "Who's the best player in baseball?"

Using these more advanced statistics makes sense because, well, they're more advanced. But how are they more advanced? Finer grained? More information? Crucial new categories? With this connotation, it obviously seems like the right move to give them more weight when making managerial decisions imprecise. But that might not be necessary.

There's a chance that lineups can be produced using more basic statistics (such as types of hits) that would look very similar, if not the same, to lineups using the same players formed with more advanced statistics. Let's take a lineup that we can assume has been compiled based off of known advanced offensive statistics: the 2001 Arizona Diamondbacks World Series Game Seven starters⁷. This was a team that, just three years after their acceptance? into the league, won it all with a come-from-behind victory against one of the game's best closers, so it's safe to say that some serious thought went into the decisions behind the team's setup.

Figure 1 shows us the lineup⁸ for that Game Seven,

played on November 4th, 2001 in Arizona, complete with players and their season batting averages (AVG), on base percentages (OBP), and slugging percentages (SLG). The parentheses next to each statistic include the player's rank amongst the listed team members in each respective category.

Order	Player	AVG	OBP	SLG
1	Womack	.266 (8)	.307 (8)	.345 (8)
2	Counsell	.275 (6)	.359 (3)	.362 (7)
3	Gonzalez	.325 (1)	.429 (1)	.688 (1)
4	Williams	.275 (4)	.314 (7)	.466 (3)
5	Finley	.275 (5)	.337 (5)	.430 (5)
6	Bautista	.302 (2)	.346 (4)	.437 (4)
7	Grace	.298 (3)	.386 (2)	.466 (2)
8	Miller	.271 (7)	.337 (5)	.424 (6)

Figure 1⁹

Figure 2 shows us the lineup for the same game, this time with season numbers for singles (1B), doubles (2B), triples

(3B), and homeruns (HR) listed next to each player, and each man's rank amongst the listed team members in each respective category.

Order	Player	1B	2B	3B	HR
1	Womack	101 (2)	19 (7)	5 (2)	3 (8)
2	Counsell	97 (3)	22 (5)	3 (4)	4 (7)
3	Gonzalez	108 (1)	36 (1)	7 (1)	57 (1)
4	Williams	75 (6)	30 (3)	0 (7)	16 (2)
5	Finley	91 (5)	27 (4)	4 (3)	14 (4)
6	Bautista	49 (8)	11 (8)	2 (5)	5 (6)
7	Grace	94 (4)	31 (2)	2 (5)	15 (3)
8	Miller	71 (7)	19 (6)	0 (7)	13 (5)

Figure 2¹⁰

Forgetting about each player's actual numbers in each category in Figures 1 and 2, look at their ranking amongst the rest of the lineup within each statistic. Take one stat from each Figure and see how their ranks compare. Counsell (hitting second) has a ranking of 6 for his average. His rankings for doubles and homeruns are 5 and 7. Each of these rankings are just one number away from his average ranking, and their average is the exact same as his number ranking. It is important to note that his singles and triples rankings, 3 and 4, would skew things quite a bit. However, they line up quite

nicely with his on base percentage ranking, showing us that some statistics can correlate between the two Figures.

Now take Counsell's ranking for the slugging percentage column. A 7, it lines up perfectly with his homerun ranking, and isn't too far away from his ranking of 5 in the doubles category. Once again, there can be some connection between these two sets of statistics.

The final comparison can be made between the averages of his rankings. Take his rankings from Figure 1 (6, 3, and 7) and his rankings from Figure 2 (3, 5, 4, and 7) and find the average of those number sets. The average ranking of Figure 1 comes out to 5.34 and the average ranking of Figure 2 to 4.75. For comparison's sake, these two numbers are pretty far off and using them to set a full lineup would produce widely different results (with rounding they can both be claimed as 5). This is because, based off of the three categories selected in Figure 1, the ideal average of rankings for the number two hitter is 5.34. And based off of the statistics in Figure 2 it is 4.75. Therefore, we cannot say that this method of using alternative (more basic) statistics would work for Counsell's position.

Let's look at another player. Miller (batting eighth) has rankings of 7, 5, and 6 for the statistics in Figure 1. In Figure 2 he has rankings of 7, 6, 7, and 5. Any number from one Figure can be compared to any number in the other Figure and they're all within a very close range (either one, two or equal) of each other. On top of this, the averages of all the rankings from each statistic set match up quite nicely as well. The average ranking for his position (once again based off of the chosen statistics) according to Figure 1 is 6. The average ranking for his position according to the statistics in Figure 2 is 6.25. With rounding, these are the exact same number.

Figure 3 once again shows the same lineup, this time with the average of the rankings from each previous Figure next to each other, better displaying the data referenced while analyzing players above. Rephrase this, or say once more just to get the point clearly across. The margin between the two average rankings is also displayed. The parentheses show the rank of each average rank compared to the rankings in their category.

Order	Player	Figure 1 Average Ranking (Advanced)	Figure 2 Average Ranking (Basic)	Margin Between Average Rankings
1	Womack	8 (8)	4.75 (5)	3.25
2	Counsell	5.34 (5)	4.75 (5)	0.59
3	Gonzalez	1 (1)	1 (1)	0
4	Williams	5.34 (5)	4.5 (4)	0.84
5	Finley	5 (4)	4 (3)	1

6	Bautista	3.34 (3)	6.75 (8)	3.41
7	Grace	2.34 (2)	3.5 (2)	1.16
8	Miller	6 (7)	6.25 (7)	0.25

Figure 3

While looking at Figure 3, notice that five out of the eight players have average rankings within a margin of 1.0. Expand this category by 0.16 and we have six players. The only margins above that 1.16 slot are all the way above 3, and high enough to call them outliers. But there are explanations for these two (Womack and Bautista), detailed below.

Based off of the above numbers, we can create a new lineup, taking the average rankings from Figure 1 and their order in the lineup, and repositioning the players into slots based off of their average ranking from Figure 2. Again, explain the relation of the rankings to the lineup. Is one simply the expression of the other, the implementation of the ranking, or is it that the rankings provide important information to the lineup but other factors are also important e.g. left-hander/right-hander etc. This can be done in two ways. The first would match rankings from each Figure as best as possible with the same number (e.g. average ranking of 8 paired with average ranking of 8). The second, and what's shown in Figure 4, takes all the average rankings from Figure 1 and gets their rank, then does the same to the average rankings from Figure 2 and puts the new corresponding rankings together as "ranked average ranks."

New Order	Actual Order	Player	Ranked Figure 2 Rank	Spots Moved (+/-)
1	6	Bautista	8	5
2	2/1	Counsell/Womack	5/5	0/-1
3	3	Gonzalez	1	0
4	2/1	Counsell/Womack	5/5	-2/-3
5	4	Williams	4	-1
6	5	Finley	3	-1
7	7	Grace	2	0
8	8	Miller	7	0

Figure 4

As you can see, four of the eight players (assuming Counsell takes the number two spot) didn't move at all with this alternative method. Another two moved down just one, a third (Womack) moved down three, and one moved up five places into the leadoff position. Most importantly, Gonzalez (the best hitter) keeps his spot in the three-hole, allowing him to deal the damage.

The two main outliers in this newly arranged lineup are Womack and Bautista, the same two that skewed the results in

Figure 3 (comparing the average rankings). And there are reasonable excuses for their repeat offenses.

Leadoff hitters such as Womack are a unique breed of offensive player. Often times they aren't required to have the best typical statistics (what we're calling advanced: batting average, on base percentage, and slugging percentage), but are asked to get on base by whatever means possible. Essentially this puts their role in an entirely different perspective than everyone else in the lineup. Their role, especially at the start of the game, is to get on base and into a position where the two through five-hole hitters can drive them in. If a player can't effectively and consistently do that, then they are no longer leadoff material. Is this approach to the leadoff position generally accepted?

To do this, good leadoff hitters often have many more singles than they do extra base hits, as the power-hitters behind them can drive them in. To accompany base hits, leadoff men are also some of the fastest runners in the lineup, allowing them to steal bases to help their cause of scoring and to sometimes stretch what would normally be a single into a double.

If we look at Womack's statistics from that 2001 season, we see that he had the second most singles in the lineup with 101 (only short to Gonzalez's 108) and hit the seventh and eighth most doubles and homeruns with 19 and three respectively. His five triples put him in second place in that category, but triples are a very hard to come by type of hit and his speed and possible ability to turn a typical double into a triple could easily explain that stat. Either way, his numbers on doubles and homeruns make sense. Because of how few extra base hits he had singles turned out to be 79% of his total hits that season. This extreme imbalance¹¹ is what causes Womack's

Figure 2 numbers to be so different from one another and what slants his new placement in the lineup created with these new numbers in Figure 4. It is also important to note that Womack had 28 stolen bases that season and was caught just seven times for an impressive percentage of 80%¹².

Accepting Womack's outlying nature for the application of this new method is to agree that the statistical analysis and process of reconfiguring the lineup is flawed, which it is in many ways. Another example of this is with Bautista, our other consistent outlier. In Figure 3 we saw that his average rankings from Figures 1 and 2 were off from each other by a margin of 3.41 and in Figure 4 we saw him move five spots: from sixth to leadoff.

One thing that we never took into account at the very beginning was the fact that the more games you play the more opportunities you'll have to accumulate these statistics that we're taking into account: singles, doubles, triples, and homeruns. Bautista only played in 100 games that season, totaling 239 plate appearances¹³ and just 222 at bats¹⁴. Gonzalez, the leader in all three "advanced" offensive categories from Figure 1, was the only player on the team to play in all 162 games that season, accumulating 728 plate appearances¹⁵ and 609 at bats¹⁶. To put things in perspective, Bautista's 100 games played were the 11th most that season¹⁷, meaning that there were ten men ahead of him who could have started that Game Seven.

Either way, it was Bautista that started and this new method of analysis to reconfigure a lineup is unfairly biased towards players with more games under their belt. Although the argument could be made that the most experienced men should get the most playing time as their statistics have had more time to develop. For this exact reason, the statistics that this new method is trying to replace can be used to level the

playing field by having analyzers look at averages rather than totals. Right here we have found another flaw on our way to explaining the second of the two outliers in the new method, but not one that can't be fixed.

To attempt to remedy Bautista, we're going to divide each player's total in each category of statistic in Figure 2 (the alternative more basic ones) and divide them by each player's total number of at bats (AB) in the 2001 season. This is shown in Figure 5.

Order	Player	AB	1B	1B %	2B	2B %	3B	3B %	H	HR
1	Womack	581 (3)	101 (2)	.174 (7)	19 (7)	.033 (8)	5 (2)	.009 (3)	3 (8)	.005 (8)
2	Counsell	458 (5)	97 (3)	.212 (2)	22 (5)	.048 (6)	3 (4)	.009 (3)	4 (7)	.009 (7)
3	Gonzalez	609 (1)	108 (1)	.177 (6)	36 (1)	.059 (3)	7 (1)	.011 (2)	57 (1)	.094 (1)
4	Williams	408 (6)	75 (6)	.184 (5)	30 (3)	.074 (1)	0 (7)	.000 (7)	16 (2)	.039 (2)
5	Finley	595 (2)	91 (5)	.153 (8)	27 (4)	.045 (7)	4 (3)	.044 (1)	14 (4)	.024 (5)
6	Bautista	222 (8)	49 (8)	.221 (1)	11 (8)	.050 (4)	2 (5)	.009 (3)	5 (6)	.023 (6)
7	Grace	476 (4)	94 (4)	.197 (3)	31 (2)	.065 (2)	2 (5)	.004 (6)	15 (3)	.032 (4)
8	Miller	380 (7)	71 (7)	.187 (4)	19 (6)	.050 (4)	0 (7)	.000 (7)	13 (5)	.034 (3)

Figure 5¹⁸

We're looking at a lot of jumbled data in the above table. What it's really showing us is each player in their original lineup positions at the start of Game Seven of the 2001 World Series. Next it has the number of at bats each player accumulated during the entirety of their season. Next to this are four different head-columns, each with totals on the season and totals divided by at bats in their sub-columns (1B | 1B%).

To further analyze the data from Figure 5 like we did the data from Figures 1 and 2, we can look back to Figure 3 and its creation. To do this we'll take the average ranking from each percentage column for every player and put it side-by-side with the average rankings from Figure 1, as well as the margin between the average rankings, shown in Figure 6. What we'll get in the average ranking is each player's batting average divided by four, just going through a roundabout – yet consistent with our processes – way, ranked and adjusted for purposes. The one difference between the data columns in Figures 3 and 6 is that the margin set shows that between the two Figure's rankings rather than the two Figure's numbers.<<This is unclear—re-state

Order	Player	Figure 1 Average Ranking	Figure 6 Average Ranking (Percent)	Margin Between Figure Rankings
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1	Womack	8 (8)	.055 (8)	0
2	Counsell	5.34 (5)	.070 (5)	0
3	Gonzalez	1 (1)	.085 (1)	0
4	Williams	5.34 (5)	.074 (3)	2
5	Finley	5 (4)	.067 (7)	3
6	Bautista	3.34 (3)	.076 (2)	1
7	Grace	2.34 (2)	.073 (4)	2
8	Miller	6 (7)	.068 (6)	1

Figure 6

The reason that the margin column in Figure 6 is measuring something different than that in Figure 3 is because we're working with different mediums. Imagine the two ranking columns in Figure 6 as an x and a y . They're two different variables so therefore we can't simplify them when doing mathematical processes. In this same mindset, finding a margin between a number and a percent partially derived from that number would give us useless data. Instead, it is more

helpful to look at the margin between the average percent rankings and the average rankings that we can assume were used to determine the actual line up.

In short, this comparison shows us how close this method brings us to finding the correct lineup through an alternative method. This also means that it can't produce a new order for the lineup like that produced in Figure 4. However, we can look at our margins and see how off things would be, or how accurate this method actually is.

Looking only at the 'Margin Between Figure Rankings' column, we can see that four of our eight players would not move at all, telling us that this new algorithm was 50% successful based on a margin of 100% accuracy. These players are the one through three and eight-hole hitters.

Two more, fourth and seventh, would move just two places, another three, and Bautista – the whole reason for this method – would move just one. Figure 7 shows us where exactly everyone would move to, this time exactly like Figure 4.

New Ord er	Actual Order	Player	Ranked Figure 6 Rank	Spots Moved (+/-)
1	1	Womack	8	0
2	2/8	Counsell/Miller	5/6	0/6
3	3	Gonzalez	1	0

4	2/8	Counsell/Miller	5/6	-2/4
5	7	Grace	4	2
6	4	Williams	3	-2
7	6	Bautista	2	-1
8	5	Finley	7	-3

Figure 7

Everything looks pretty much how we expected it to be based off of the assumptions from Figure 6. There's just one problem. Using the average rankings from Figure 1 to tell us which ranks are most desirable and where in the lineup gave us two 5's and no 6's. The lineup produced in Figure 7 is perfect through the first three (assuming Counsell takes the two-hole), and just two players move two spots, one moves three, and Bautista moves one. His movement of just one place in the lineup is enough to call this percent of basic statistics method (originally done in Figure 5) a success, even with the outlier of Miller.

Based off of Figure 6, Miller was projected to move one spot. However, the lack of a 6 rank put him in with Counsell at the 5 rank, causing him to move either up six or four spots in the lineup, both of which we know are not the same as moving one (which satisfies our purposes). Without remedying our solution or methods for yet another player, we can still look at our new lineups from both Figures 4 and 6 and see how they together compare to the actual lineup used to win the 2001 World Series.

To see if either of our two lineups created were actually successful, first refer back to the original goal: to create identical lineups to those created using a set of advanced statistics using basic statistics. For our purposes said advanced statistics consisted of batting average, on base percentage, and slugging percentage, three stats that aren't actually that advanced in the grand scheme of things, but become so when compared to our basic statistics. These basic ones were the number of singles, doubles, triples, and homeruns hit by a player.

Just using the basic statistics we were able to create a lineup (Figure 4) that had three of the players keeping their spots, two moving just one, and two outliers, one of which could be explained through the leadoff hitter phenomenon, leaving us with one problem.

In an attempt to correct that problem our basic statistics were turned more advanced, taking the percentage of each type of hit from the total number of this that a player had and using those to create a new lineup. This produced yet again three players that kept their spots (one of which was the leadoff hitter), one that moved one place, two that moved two, one that moved three, with just one problem player. However, the original outlier was fixed to being just one spot off from our target goal. The outlier ("problem player") in this circumstance was created due to the original rankings from the actual lineup used and ended as a permanent side effect in this new-fangled alternative method.

In all, the original goal of finding a new method to produce lineups didn't work in full, but with a few observational tweaks could turn into something real.

Part of the problem with statistics is that you will never be able to fully place a number on something that you see.

<<Say this again in another way—make your point more vivid. Statistics are meant to enhance and guide your analyzing of the game, not control it. This is to say that using just three statistics to determine the actual lineup isn't fair. Even using everything out there to incorporate the field conditions, park adjustments, league averages and the like, it wouldn't be enough to create a new method with basic statistics to replicate the original lineup. Instead, we must use what we want to of the previously mentioned and combine it with scouting reports, player notes, and our own eyesight experiences, if at all possible. After all this, it is sadly impossible to say whether or not the game would have gone the same way if one of our lineups had been used. The most likely correct answer is a simple 'no' as baseball is a game of situation and any one player hitting in a different position – even by one spot – could impact every player after him, causing an entirely different game to take place. One thing that we can correctly answer, is that however the managers and team staff chose their starting lineup for the day of November 4th, 2001, they did it the right way.

Bibliography

- 1 – Rounders was a game similar to baseball played in Britain.
- 2 – Stoolball was a game from the 15th century played in Britain.
- 3 – Source: http://www.baseball-reference.com/bullpen/Henry_Chadwick.
- 4 – In today's game, balls must be caught off the fly for an out to be recorded.
- 5 – Foul ground: the territory outside the basepaths from home plate to first and third bases.
- 6 – Wins Above Replacement (WAR) is a much more advanced statistic than the rest listed.

- 7 – Source: <http://www.baseball-reference.com/boxes/ARI/ARI200111040.shtml>.
- 8 – Not including the pitcher due to the non-offensive focus of the position
- 9 – Source: <http://www.baseball-reference.com/teams/ARI/2001.shtml>.
- 10 – Source: <http://www.baseball-reference.com/teams/ARI/2001.shtml>.
- 11 – There is always an imbalance here as singles are the most common type of hit.
- 12 – Womack had a lifetime 83.1% success rate. Source: <http://www.baseball-reference.com/players/w/womacto01.shtml>.
- 13 – Plate Appearances: every time a batter walks up to the plate. Source: <http://www.baseball-reference.com/players/b/bautida01.shtml>.
- 14 – At Bats: plate appearances without walks, hit-by-pitches, and sacrifice hits. Source: <http://www.baseball-reference.com/players/b/bautida01.shtml>.
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