

**Liberal Arts Network for Development
Student Scholars Journal
2011**

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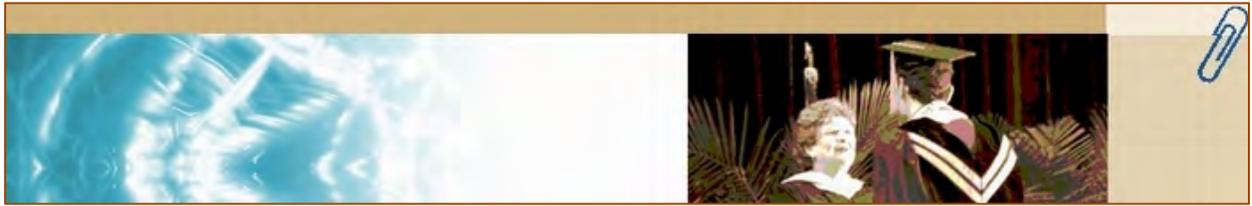
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2011 Student Scholars Conference

"Attention-Deficit Hyperactivity Disorder in Children"

Asma Alhaider

In a first grade class in one peaceful town, students are listening attentively to the teacher as she narrates a story from a big colorful book. All eyes are open wide in curiosity focused solely on the teacher, except one pair of eyes. Those eyes are sprinting back and forth, from looking at the teacher to glancing at each student then quickly sprinting back to stare out the window. The student wiggles in his seat, fumbling with a pencil in his hand. He finally raises his hand, and when the teacher turns to him, he blurts out: "I...er...I forgot!"

The fidgety child in the first grade class is an example of a child with ADHD. ADHD or Attention-Deficit Hyperactivity Disorder is one of the most common disorders in children (Barkley, 2006a). ADHD occurs in about 3 to 7 percent of children with a ratio of 3 to 1 boys being more likely to have it than girls (Barkley, 2006a).

Throughout the years, there have been various perspectives on the characteristics of this disorder. The name ADHD has been assigned to the most recent developments and it encompasses and concludes all the discoveries on symptoms and characteristics that have been found about this disorder. Thus, ADHD has been described and defined in many ways by experts and researchers. Some of the descriptions as defined by the experts include:

"ADHD is a neurobiological behavioral disorder characterized by chronic and developmentally inappropriate degrees of inattention, impulsivity, and in some cases hyperactivity . . . that interferes with a person's capacity to regulate and

inhibit behavior and sustain attention to tasks in developmentally appropriate ways . . . [which can cause] inefficiency in the area of the brain that controls impulses and is the center of executive functions—the self-regulation and self-management functions of the brain” (Rief, 2008, p. 4).

There have been many misconceptions about ADHD. Almost all children exhibit the descriptions of the characteristics of ADHD; however, they have to be present in abnormally high levels for them to count as symptoms of ADHD. ADHD affects the life of many children at home and at school, and if untreated, it can hinder their daily life as well as their ultimate success in life. Understanding ADHD and getting educated about its different subtypes and the available methods of treatment will provide many children with the help they need in having a productive and satisfying life.

Subtypes

ADHD exists in various types and one child’s ADHD will most likely differ from that of another. For diagnostic purposes and to be able to identify the most dominant symptoms, ADHD is classified into three basic subtypes with the characteristics distributed accordingly. According to Barkley (2006a), each subtype is characterized by a predominant feature of this disorder. Briefly, Barkley explains the subtypes starting with the first subtype, the Predominantly Inattentive Type, which mainly includes the inability to sustain focus or exert a continuous effort on a given task. The second subtype is the Predominantly Hyperactive-Impulsive Type which is characterized by two important features, one of which is the most commonly known characteristic of ADHD. This most easily notable characteristic is described by restlessness and an increased amount of motor activity. The second characteristic is described by the inability to inhibit or control an impulse or reaction. The third subtype is the Combined Hyperactive Impulsive and Inattentive Type which is the combination of the other two subtypes

resulting in the symptoms of both subtypes being present in significant numbers.

Predominantly Inattentive

The Predominantly Inattentive Type is often referred to as ADD because the hyperactive symptom is missing or is not significantly present (Rief, 2008, p. 5). Children with the inattentive type of ADHD cannot maintain focus and are easily distracted by outside stimuli such as sounds, sights, and other attention drawing actions (Rief, p. 6). They exhibit difficulties in listening when a person converses with them, and if they do listen, will have difficulty remembering what was said in a conversation (Rief, p. 6). When given instructions, chores, or tasks like homework assignments, they will have difficulty starting the task, following through according to instructions, and completing the task to the end (Rief, p. 6). In tasks that they find boring or tedious or just merely do not voluntarily choose to do, they will display great inability in staying alert; however, in cases where they are given individual attention by an adult and are directed throughout an activity, they will be able to sustain attention (Wender, 2000, p. 11). In other similarly confusing cases, children with ADHD might display an unusual amount of interest for a lengthy period of time in an activity like playing video games that they choose to engage in (Wender, p. 12). Such cases might lead observers to believe that the child does not have ADHD and is merely lazy or does not exert effort (Wender, p. 11). Other very common symptoms of this type include a child tuning out, daydreaming, and getting easily confused or overwhelmed (Rief, p. 6).

Because the symptoms and characteristics of the Predominantly Inattentive Type of ADHD are not easily seen or noticed especially since children with this type do not have much social problems such as getting along with friends, children with this type are many times overlooked or not identified as having ADHD (National Institute of Mental Health [NIMH], 2008).

Predominantly Hyperactive-Impulsive

The Predominantly Hyperactive-Impulsive Type of ADHD has characteristics and symptoms that are present in many ADHD children and are usually the easily observed characteristics (Rief, 2008, p. 8). Children with this type of ADHD appear to have excessive amounts of energy where they cannot sit still and will keep running about and climbing on objects even in inappropriate situations (NIMH, 2008). Such activeness and restlessness will lead to the inability of the child to sit silently in class (NIMH, 2008). The child will constantly try to get out of the seat by jumping or falling off the chair, changing the sitting position, or simply standing next to the chair and desk (Rief, 2008, p.8). Even if the child manages to sit still, he or she will display a large amount of unnecessary movement like fidgeting with the hands or feet, drumming fingers, tapping feet, or the need to play with something in his or her hands (NIMH, 2008). Children with this type of ADHD can also be extremely talkative (NIMH, 2008). These hyperactivity symptoms and characteristics will lead to the children having difficulty when having to play quiet games with other children and when trying to stay calm in many situations (Rief, 2008, p. 9).

The other factor of the Predominantly Hyperactive-Impulsive Type is the impulsivity. The characteristics and symptoms of impulsivity can attribute to children facing difficulty in situations where they have to wait including standing in line, raising hands in class, listening to or reading the complete directions, waiting for their turn in activities, and when desiring something that is gratifying (Rief, 2008, p. 9). Impulsivity symptoms will also lead children with this type of ADHD to act before thinking, interrupt or intrude on others, repeat the same errors, or make inappropriate remarks or noises (Rief, p. 9). The inability of these children to inhibit their actions will get them in trouble as they talk back to authority figures or have a hard time keeping their hands or feet to themselves, which leads them to hit or grab things from others

(NIMH, 2008). Impulsivity can also prove to be harmful to children with this type as they seem to be fearless and engage in dangerous activities or take high-risks without thinking about the consequences (Rief, p. 9).

While many of the symptoms of the Predominantly Hyperactive-Impulsive Type of ADHD might be common in many children, they have to be present in abnormal degrees for a period of at least six months and impair the functioning of the children in more than one environment to count as ADHD (NIMH, 2008).

Combined

The third type of ADHD, the Combined Type, is the most common type of the disorder (Rief, 2008, p. 8). According to Barkley (2006a), research indicates that most children who are diagnosed as having the Combined Type were initially diagnosed with the Predominantly Hyperactive-Impulsive Type. The children develop the symptoms for the Predominantly Hyperactive-Impulsive Type when they are in their preschool years, and then as they grow older and enter school, they will slowly start to develop the symptoms of the Predominantly Inattentive Type as they exhibit difficulties with attention and distractibility (Barkley, 2006a). Thus, when the symptoms of both types become present, the children are diagnosed as having the Combined Type.

As a result, children with the Combined Type of ADHD display a significant number of symptoms from the other two types (Barkley, 2006a). These children will be disorganized, tending to misplace things and be very messy (Rief, 2008, p. 10). They will have a hard time being aware of the time and will tend to procrastinate (Rief, p. 10). They tend to be very emotional and have low self-esteem, resulting in them being easily frustrated, overreacting and moody in many situations, and being aggressive in their behavior towards others (Rief, p. 10).

These children will have a really hard time as they will face difficulties in school and at home as they constantly fail to meet the expectations set out for them (Rief, p. 10).

While each subtype includes a significant number of symptoms that classify it as pertaining to that one subtype, it is still possible for it to include an insignificant number of the symptoms that pertain to another subtype (Rief, 2008, p. 5). Thus, each child's ADHD will be unique and will have varying numbers and degrees of characteristics and symptoms (Barkley, 2006a).

ADHD and Executive Function

ADHD is not only characterized by inattention, hyperactivity, and impulsivity, it is now also believed to affect the brain's executive functions, causing impairment in the development of the "management system of the brain's cognitive functions" (Brown, 2003, p. 1). Executive functions began to develop in the brain as the prefrontal cortex develops in early childhood (Brown, 2003, p. 2). Executive functions are "brain circuits that prioritize, integrate, and regulate other cognitive functions [and] provide the mechanism for "self-regulation" (Brown, 2006, p. 36). Consequently, two views have emerged about ADHD in relation to executive function; they are based upon the way executive functions are perceived and how executive functions should be evaluated (Brown, 2006, p. 35).

According to Brown (2006), the first view states that only some of the individuals that meet the diagnosis criteria for ADHD also have executive function impairments. This view defines executive functions based upon the assessment of impairments in executive functions through executive function neuropsychological tests. The second view suggests that all individuals with ADHD must also have impairments in their executive functions. This view defines executive function as "the brain's mechanism for

self-regulation” (Brown, p. 38), and is based on the belief that ADHD is essentially a disorder that includes impairments in the development of the potential area of executive function. This view seeks to go beyond the categorization of ADHD through behavioral impairments to perceive a more complex understanding of ADHD primarily as impairment in the brain’s development of the self-regulatory mechanisms. Self-regulatory mechanisms maintain self-regulation, which includes the attention and control mechanisms of the brain that enable a person to control emotional reactivity. Self regulation also includes the voluntary ability to sustain focus, attention, and inhibit and control actions (Eisenberg, 2009).

Brown (2006) concludes that the first view undermines the brain’s complex operations while the second view seeks to define ADHD within the context of executive function impairments in a way that will visualize and relate to the brain’s intricate and complex operations.

Executive Function and IQ

Impairments in the executive function do not at all imply that the general intelligence or the IQ of an individual must be low (Brown, 2006, p. 42). Schuck and Crinella (2005) argue that IQ and executive function are significantly different and that there is no relation between the two (as cited in Brown, 2006, p. 42). This argument is highly supported with clinical data that states that a significant number of individuals with high IQ also have executive function impairments (Brown, 2006, p. 42).

Etiology

Brain Structure

There are a number of assumed causes for ADHD. As a neurobiological behavioral disorder, ADHD has origins in the brain (Barkley, 2006b, p. 32). Neuropsychological studies have

conducted neuroimaging research to detect abnormalities in brain functioning and the structure of an ADHD individual's brain (Barkley, p. 32). Through position emission tomography (PET) and magnetic resonance imaging (MRI) they observed the different structures of the brain to find that children with ADHD brains have smaller prefrontal-striatal regions (Barkley, p. 33). According to Barkley (2006b), the conclusion was that these impairments in the development of the brain most likely begin at the time of the development of the embryo (p. 33).

Heredity

Further research has found a different, yet likely cause to be a genetic or hereditary origin (Barkley, 2006b, p. 33). As Barkley (2006b) reports, the risk of an offspring of a parent with ADHD having the disorder is 57%; the risk of immediate family members of children with ADHD having ADHD is between 10% to 35%; and the risk of having ADHD in monozygotic twins is 81% compared to the 29% in dizygotic twins (p. 33). Through studies controlling twin, family, and adoption factors, researchers have discovered unique genes to have a cause in ADHD occurrence (Nyman et al., 2007, p. 1614). As Nyman et al. (2007) concludes, the results indicate that there is a relation between ADHD and the two genes which are referred to as dopamine beta-hydroxylase (*DBH*) and dopamine receptor D2 (*DRD2*). These genes play a role in the hereditary cause of ADHD (p. 1619). As Nyman et al. explained, the *DBH* gene gives instructions for the production of the enzyme called dopamine beta hydroxylase, which converts dopamine to norepinephrine. The *DRD2* gene gives instruction for the production of the D2 subtype of the dopamine receptor. Both dopamine beta hydroxylase and norepinephrine are chemical neurotransmitters that transmit signals between nerve cells. Further research can lead to discoveries about the genetic component to ADHD that will improve diagnosis and treatment of this disorder (Nyman et al., p. 1619.)

General Causes

Other possible causes of ADHD that are being researched further include prenatal exposure to complications during birth like premature birth or toxemia (Rief, 2008, p. 21). Rief (2008) suggests that the consumption of certain substances such as alcohol or nicotine by a pregnant mother can lead to a child having ADHD (p. 21). A small percentage of children with ADHD can have causes pertaining to complications at the time of birth that affect the brain (Rief, p. 21). Traumatic head injuries that affect the frontal region of the brain can cause damage leading to ADHD (Rief, p. 21). Another possible cause includes lead poisoning during a mother's pregnancy or later as the child grows (Rief, p. 22).

Diagnosis

The diagnosis of ADHD is not an easy process. According to Barkley (2006b), it requires the gathering of enough information from multiple sources that is based on observations. The evidence must be enough to meet the criteria of the DSM-IV, the Diagnostic and Statistical Manual of Mental Health Disorders, which is published by the American Psychiatric Association. The information should be gathered from parents, caregivers, and the child's school. The evaluator must be qualified and must be one of a number of licensed medical and mental health professionals such as child psychiatrists, pediatricians, clinical psychologists, or others. The evaluator, along with conducting a number of exams and tests with the child, should also learn about the medical, developmental, behavioral, family, and school history of the child. The following DSM-IV criteria for ADHD are adapted from the American Psychiatric Association:

DSM-IV Criteria for ADHD

I. Either A or B:

- A. Six or more of the following symptoms of inattention have been present for at least 6 months to a point that is inappropriate for developmental level:

Inattention

1. Often does not give close attention to details or makes careless mistakes in schoolwork, work, or other activities.
 2. Often has trouble keeping attention on tasks or play activities.
 3. Often does not seem to listen when spoken to directly.
 4. Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions).
 5. Often has trouble organizing activities.
 6. Often avoids, dislikes, or does not want to do things that take a lot of mental effort for a long period of time (such as schoolwork or homework).
 7. Often loses things needed for tasks and activities (e.g. toys, school assignments, pencils, books, or tools).
 8. Often is easily distracted.
 9. Often is forgetful in daily activities.
- B. Six or more of the following symptoms of hyperactivity-impulsivity have been present for at least 6 months to an extent that is disruptive and inappropriate for developmental level:

Hyperactivity

1. Often fidgets with hands or feet or squirms in seat when sitting still is expected.
2. Often gets up from seat when remaining in seat is expected.

3. Often excessively runs about or climbs when and where it is not appropriate (adolescents or adults may feel very restless).
4. Often has trouble playing or doing leisure activities quietly.
5. Is often "on the go" or often acts as if "driven by a motor".
6. Often talks excessively.

Impulsivity

7. Often blurts out answers before questions have been finished.
8. Often has trouble waiting one's turn.
9. Often interrupts or intrudes on others (e.g., barges into conversations or games).

II. Some symptoms that cause impairment were present before the age of 7 years.

III. Some impairment from the symptoms is present in two or more settings (e.g. at school/work and at home).

IV. There must be clear evidence of clinically significant impairment in social, school, or work functioning.

V. The symptoms do not happen only during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder. The symptoms are not better accounted for by another mental disorder (e.g. Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

ADHD and Children

At School

About 3 to 7 percent of children have ADHD (Barkley, 2006a), and it affects their lives at home and at school, having serious consequences on their academic, social, and emotional life (Wender, 2000, p. 46).

Academically, ADHD can cause a child to struggle doubly with all the responsibilities of a student at school (The Health Central Network, 2005). Each symptom or characteristic of ADHD plays a role in hindering the academic achievement of children with ADHD (The Health Central Network). The tendency to forget and the inability to stay organized causes ADHD students to face difficulties as they forget about assignments, tests, misplace handouts, books or other school supplies, and generally have a hard time in figuring out and distinguishing between the necessary information needed for studying (The Health Central Network). Inattention causes a child's attention to be divided as the child pays attention to everything without being able to focus on one particular thing, leading the child to miss specific details about assignments or instructions given by the teacher (The Health Central Network). Hyperactivity, another major symptom of ADHD, poses a harsh struggle as the ADHD child is forced to sit still in class for lengthy periods of time (The Health Central Network).

According to Rief (2008), children with ADHD have educational rights. The two main laws that protect students with ADHD are the Individual with Disabilities Education ACT (IDEA 2004) and Section 504 of the Rehabilitation Act of 1973 (Section 504). These two laws set necessary rules that school districts must follow. School districts are required to provide ADHD students with a free public education in a nonrestrictive environment alongside their non-ADHD peers where their needs will be maintained and met appropriately. The laws require schools to allow and even support any necessary changes including adaptations or accommodations that will help ADHD students join and learn in the general education program. The laws also allow ADHD students to engage in non-academic activities like sports or other after school activities. By ensuring that the evaluation of ADHD students in schools is free of discrimination, these laws establish the appropriate educational rights of ADHD students.

At Home

At home, the ADHD child is not the only member of the family who struggles (Newman, 2008, p. 17). Parents are faced with many difficulties, and many problems arise as the parents struggle to meet the child's needs as well as properly discipline the child (Wender, 2000, p. 50).

Inattentiveness will cause the ADHD child to be non-responsive, requiring repetitions by the parent to get the child to listen to something (Wender, p. 50). When told by a parent to do something, the ADHD child will refuse or only partially accomplish the task, causing the parent to repeat the order multiple times which will lead to frustrations by both the child and the parent (Wender, p. 50). Parents need to spend large amounts of time with their ADHD child to help with homework or make sure the child completes chores (Newman, 2008, p. 22).

Hyperactivity and impulsivity, two major characteristics, will cause the child to pick fights and argue with other siblings more than the usual child (The Health Central Network, 2005). Such actions lead to tension and dislike build-up in other siblings towards that child (The Health Central Network). This issue, combined with the large amount of time and attention the parents are giving to the ADHD child, can really cause the other siblings to feel neglected and resentful (The Health Central Network).

Further problems can happen between the parents. Sometimes, the parents are not consistent in the parenting of the ADHD child, which not only proves troublesome when dealing with the child, but also leads to serious arguments and major conflicts between the parents (Newman, 2008, p. 25). One parent might feel that the other is too lenient and does not care or put much effort in parenting the child, while the other might feel that the first parent is strict and too harsh on the child (Newman, p. 25). This can cause much friction and conflict within families of children with ADHD and might lead to the breaking up of the family (The Health Central Network). What can add to the already existing stressful tension within the family is the very possible fact that one of the parents might also have ADHD because of the hereditary

factor that causes ADHD (Barkley, 2006b, p. 33). This fact can cause the already troubled situation to elevate to much worse conditions (The Health Central Network).

Social Life

Children with ADHD can have much difficulty establishing a social life (The Health Central Network, 2005). Their impulsive actions can lead people to stay away from them while their inability to stay focused might cause them to distance themselves from people (Newman, 2008, p. 17). The two types of ADHD, Predominantly Inattentive and Predominantly Hyperactive-Impulsive, can have their pros and cons when it comes to building and maintaining a social life (The Health Central Network).

According to The Health Central Network (2005), children with the Predominantly Inattentive Type can have difficulty making friends because they are reserved and shy. They will have trouble reaching out and communicating with other children. However, once they manage to find and make friends, they are more likely to be able to keep those friends. On the other hand, children with the Predominantly Hyperactive-Impulsive Type have more social difficulty. The characteristics of their type of ADHD can give an outward appearance that signifies that they are very outgoing and energetic; however, these same characteristics make it hard for the children to maintain a friendship as their hyper and impulsive actions will drive other children away.

Further research shows that the aggressive tendency of some ADHD children poses trouble as they try to get along with other children (Newman, 2008, p. 29). As other children start to avoid them, ADHD children might feel as if they do not fit in (Newman, p. 29). They start to feel left out and many times are humiliated or embarrassed because they are different (Newman, p. 30).

Emotional Life

Another factor of an ADHD child's life that is also negatively affected is the emotional aspect of their life (The Health Central Network, 2005). ADHD children are often emotionally underdeveloped or immature relative to children of the same age (The Health Central Network). Immaturity in individuals continues to grow as they grow; however, in individuals with ADHD, the process is much slower due to the slower rate of the development of the frontal regions of the brain, resulting in lower levels of maturity (The Health Central Network). Thus, emotional immaturity poses many problems for them as they try to connect with other children (Wender, 2000, p. 55).

However, many of the emotional problems children with ADHD face are not necessarily caused by the emotional immaturity (Wender, 2000, p. 28) According to Wender (2000), children with ADHD will have low self-esteem and will struggle in social places like school where they feel even more inadequate or worthless. Individuals form their self-esteem based on how other people regard them. ADHD children are rarely invited to parties or sleepovers and are usually the last to be chosen for games. Adults will become annoyed, exasperated, and frustrated with ADHD children. Even teachers might make remarks that make ADHD children feel that their peers are much better than them. As children with ADHD notice the negative responses or reactions others have for them, they start to feel unloved, worthless, or sometimes even dumb.

Girls and ADHD

Girls that have ADHD are many times overlooked, resulting in their ADHD passing without treatment (Rief, 2008, p. 24). Most girls that have ADHD will have the Predominantly Inattentive Type, which results in them being unnoticed because they are believed to be shy (Rief, p. 24). Girls are more likely to become over-whelmed and develop anxiety; but at the same time they are more likely to try to hide their problems and difficulties (Rief, p. 24). On the

other hand, some girls can have the Predominantly Hyperactive-Impulsive Type or the Combined Type, which will be very noticeable as they are significantly acting abnormally compared to other girls (Rief, p. 24). In such cases, it is much easier to recognize the symptoms of ADHD (Rief, p. 24).

Treatment of ADHD

There is no cure for ADHD, but there are various treatment methods that can prove very effective in improving the conditions of children with ADHD (Barkley, 2006a). Briefly, Barkley lists the methods, starting with the method of educating the people involved with an ADHD child, like the family and teachers, about the nature of the disorder and about the ways of dealing with the child. By learning about the disorder and all that it relates to in the life of an ADHD child, everyone involved can deal in a much better and appropriate way with the ADHD child. This method can also include the counseling of the ADHD child and the family members. Another method, which provides great improvement, would be the use of medication, mainly stimulant medications, to treat the symptoms of ADHD (*discussed in depth under Medication*). A third type of treatment that is usually only effective during the period that it is being conducted in is the psychological treatment. Psychological treatment includes programs where the parents are trained in child behavior management and where behavior modification takes place in the classroom. This method requires a great amount of involvement not only by the parents, but also by the teacher and school.

The treatment methods can be combined or used separately depending on the improvements that result; however, multiple methods usually provide better outcomes. It is best that treatment be provided over long periods of time to result in the most beneficial outcomes that provide an ADHD child with a more normal, satisfying, and successful life.

Medication

Medication has been used for many years and it greatly helps in reducing and controlling the symptoms of ADHD (Rief, 2008, p. 39). There are many medications, and while one could work for a child, it may not work for another (Wender, 2000, p. 72). It is the job of the physician working with the child to decide which medication works best for a child and the amount of dosage that should be given to that child (Wender, p. 73). The physician should wait a period of 3 to 4 weeks before changing the medication or dosage that is given to a child (Wender, p. 37).

Stimulant medications come in the form of a pill, capsule, liquid, or a skin patch (NIMH, 2008). Medications can be short-acting where the effects will last for a short period of time or long-acting where the effects will last for a longer period of time (NIMH, 2008). Thus, the medications come in different forms and methods, and the parents and doctor can choose the form and method that best suit the child (NIMH, 2008).

According to Rief (2008), the stimulants that are given are either methylphenidate stimulants or amphetamine stimulants (p. 40). Briefly, Rief explains that the most common stimulants that are used in the treatment of children with ADHD are Dexedrine, Ritalin, and Adderall. The stimulants are beneficial because they quickly take effect and result in significant improvements. The drugs are believed to work by increasing the production of dopamine and norepinephrine chemicals by the neurotransmitters, which enhances the communication between neurons. Consequently, the stimulants work to activate the regions of the brain that are underactive and not working properly in children with ADHD.

The downside of using medication would be the side effects that can result from using a specific stimulant and the fact that some parents can be apprehensive about using stimulant medication (Wender, 2000, p. 70). Possible side effects include a loss of appetite, headache, stomachache, slight sleep disturbances, a repression of growth, and a period of fifteen to forty-

five minutes when the medication is wearing off where the symptoms of ADHD become worse (Rief, 2008, p. 42). Parents can be apprehensive about using medication because they fear that their child will become too dependent upon the drug or that using medication will have to be a continuous process of dealing with their child's ADHD (Wender, 2000, p. 70).

Programs

Special programs and behavioral interventions can be very helpful in treating the ADHD child (Sheridan, S. M., Dee, C. C., Morgan, J. C., McCormick, M. E., & Walker, D., 1996, p. 57). Through good communication between parents and teachers, effective behavioral interventions can be established that will result in good outcomes for the ADHD child (Rief, 2008, p. 34). Rief explains that through the interventions, the teachers and parents learn how to be consistent in their disciplinary methods and how to effectively use rewards and punishments to deal with and improve the actions of the ADHD child. Teachers and parents learn specific techniques that help in the improvement of the ADHD child's correct behavior and decrease the inappropriate and unwanted behavior. The interventions include training a group of ADHD children a number of appropriate skills and then having them perform what they have learned in daily situations. There can also be individual counseling, where the child is taught specific techniques on how to deal with some of the symptoms and results of their ADHD characteristics. Family counseling can also help improve the family relationship as all the members of the family receive the needed attention and counseling. Educational interventions can be very helpful because the teachers will be fully involved and will learn and provide all the necessary accommodations of special lesson planning, supportive tutoring, and the appropriate environment.

Conclusion

ADHD is a disorder that affects many children in their daily lives. The symptoms ranging from distractibility and the inability to sustain focus to excessive activeness and the inability to inhibit control over actions can cause many obstacles and restrictions on the lives of the ADHD children. ADHD can stand in the path to success as it follows a child through childhood, adolescents, and into adulthood. For the ADHD child to be able to lead as much of a normal life as possible, the proper treatment should be provided. Through learning about the nature of ADHD and through the various methods of treatment, whether using the proper medications or getting involved in behavioral interventions, ADHD children and their families can attain a more peaceful, satisfying, and productive life.

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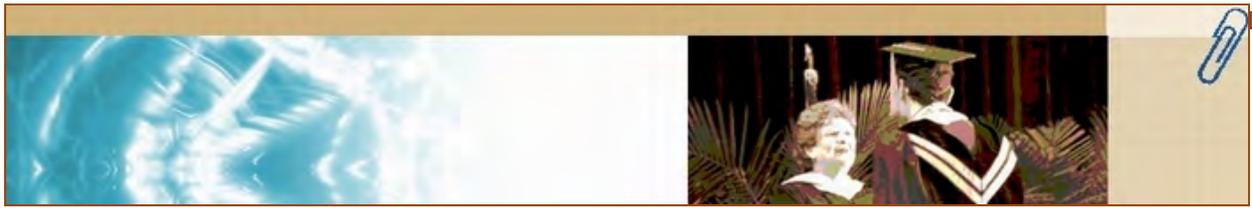
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2011 LAND Student Scholars Conference

"The N.A.F.T.A Effect"

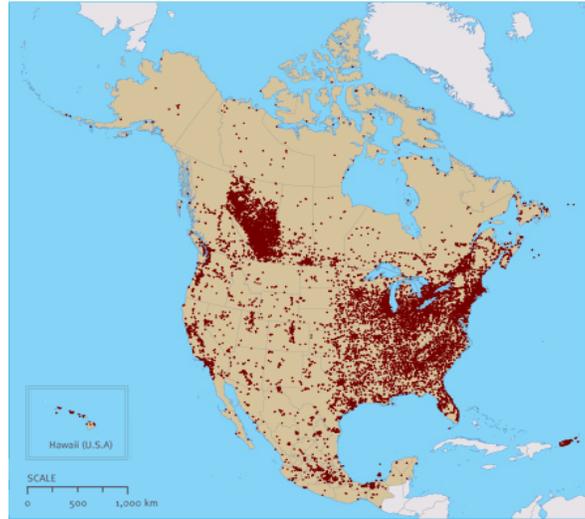
Carl M. Ferrario

Since NAFTA's introduction, the US and Canada have shared an open ended energy resource program and a free trade practice that has seen both the US and Canada profiting largely due to the unregulated business that is "natural resources." The US has long-term security in place, being Canada's closest neighbors and their largest buyers. As Canada continuously sells more natural resources across the border at increasingly larger rates, they begin to awaken to the realization that there is no theoretical way to stop the US from coming in and "sharing" as many resources as they want. The question everyone should ask is not how much money can be made, but what is the cost to our environment? By not having any environmental regulations to keep everyone in check, can we even be sure that we can stop the system we created? Canada currently has no legal recourse against the United States and US companies from coming in to collect and export lumber, water and oil. These agreements more or less have allowed US ventures an open access to Canada's vast environmental resources, and in the years to come it will go to show that since the creation of NAFTA there have been profound and permanent effects on the environment because of these laws.

In 1992, U.S. President George H.W. Bush, along with Mexican President Salinas, and Canadian Prime Minister Brian Mulroney signed The North American Free Trade Agreement (NAFTA). NAFTA has two current supplements, the [North American Agreement on Environmental Cooperation](#) (NAAEC) and the [North American Agreement on Labor Cooperation](#) (NAALC). The U.S. House of Representatives approved the legislature on November, 17 1993 at a vote of 234 to 200. Three days later the U.S. Senate again passed the bill by a vote of 60 to 38, November 20, 1993. U.S. President Bill Clinton signed the bill on December 8, 1993, NAFTA then went into effect January 1, 1994. In the act of this legislation

taking effect it negated the previous [Canada-US Free Trade Agreement](#) and as of its activation currently holds no more legal precedent. (Amadeo) Debatably after beginning its initial introduction, within a few years NAFTA systematically turned the U.S. from a more economically diverse country into an overwhelmingly larger gross importer.

NAFTA requires the representation from the three countries involved to assign a leader to participate as a member NAAEC division. Concerns over the new liberalization of business made some government officials weary of a government run organization regarding the environment. This led to the formation of the CEC (Commission for Environmental Cooperation). The CEC is an international organization created by [Canada](#), [Mexico](#) and the [United States](#) as a subsidiary of NAFTA. The CEC was established to address regional environmental concerns, to help prevent potential environmental conflicts pertaining to trade. The main intention was to keep a tab on the more developed of the two countries and make sure they were not taking advantage of any other countries resources. A present notable concern is that the developed North American industries would be quick to generate jurisdictions with lax environmental protection laws or weak enforcement of the laws. This would allow for the extraction of natural resources with no pending responsibility after they have left the extraction site. There was a fear that the countries would have a so called, "race to the bottom" in order to establish the lowest possible standards environmentally. In prediction of this forethought, a mandate was created to include documentation into the environmental assessment of NAFTA. The CEC has since held four symposia over the concerns that NAFTA has been a shield for companies to avoid prosecution for environmental negligence, as there is not a blanket standard for any environmental law within NAFTA alone. To this day 47 papers have been commissioned on the subject specifically while the real environmental injustices have taken a backseat. Business has been allowed to run so far ahead of their regulation; it is now clear that it is more difficult than not to prosecute any one company under the authority of the CEC.



Mapping North American Environmental Issues

The Commission for Environmental Cooperation (CEC) recently launched a new online mapping tool called the North American Environmental Atlas where North American environmental trends can be visualized at a continental scale. It's a useful offering from the little-known tri-lateral agency created in 1994 in conjunction with the North American Free Trade Agreement (NAFTA). (TreeHugger.com)

According to Article 10 section (7) in NAFTA participating governments in agreement with NAFTA are required to work towards agreements and set rules and regulations culminating in a Transboundary Environmental Impact Assessment (TEIA) “not the CEC”. Although a major obstacle has stood in the way of all three countries coming to agreement on anything. Only one of the countries in NAFTA, the United States, shares a boarder with both countries, this leaves the governments of Mexico and Canada unable to come to an agreement on the importance of what needs to be highlighted in the agreement; since neither share the same concerns or references (i.e. business and natural resources). Secondly, fear of over “Trade Liberalization” (“Removal of or reduction in the trade practices that thwart free flow of goods and services from one nation to another. It includes dismantling of tariff (such as duties, surcharges, and export subsidies) as well as non-tariff barriers (such as licensing regulations, quotas, and arbitrary standards).”) has been a major political debate issue, so by not meeting and regulating the environmental impacts of transboundary businesses, conviction of environmental crimes

becomes harder to convict due to lack of preconceived guidelines. US and Canada share the largest integrated electrical and oil pipeline systems in the world.

Canadian & U.S. Crude Oil Pipelines All Proposals



(www.TheOilDrum.com)

Since 1994 Canada and the US have seen a growth influx in the amount of shared workers and companies between the two nations. More specifically the oil and natural gas companies that operate within Canada owned by American ventures have increased as well. Natural gas production in the Western Canada Sedimentary Basin (WCSB) grew rapidly in the 1990s, increasing over 60 percent during the decade. Although Canada boasts the largest oil reserves in the western countries it still imports half of its oil and natural gas. (Subsea Oil and Gas Directory) Since the signing of NAFTA in 1994 Canada has close to quadrupled its export of oil, partially due to the influx of American oil ventures and still cannot get oil out fast enough to be able to ship it across to Eastern Canada where most of their oil has to be imported. Alberta contains around 80 percent of Canada's total natural gas production. According to Reuters, a surge in oil exports to the United States raised Canada's trade surplus in June of 2008, boding well for an economy that narrowly skirts a recession. The trade surplus widened for a second

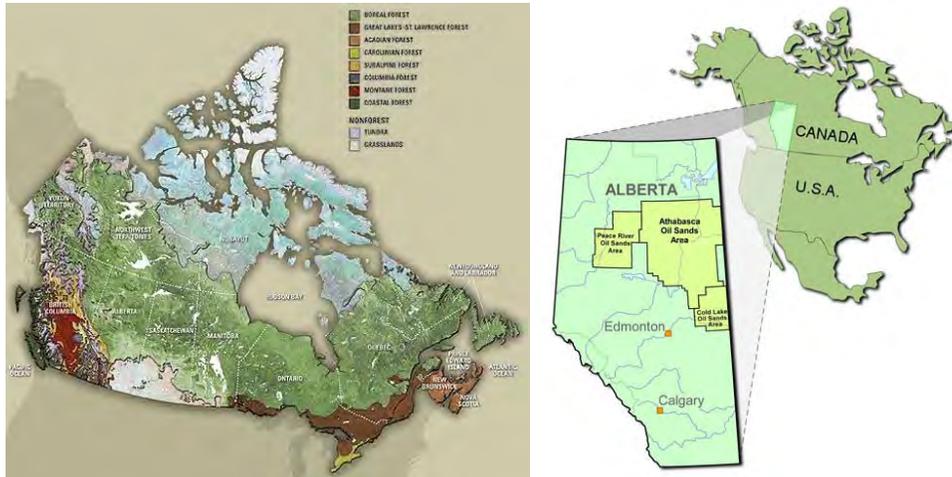
consecutive month in June, to 5.8 billion Canadian dollars (\$5.4 billion US), in line with expectations and up from 5.22 billion Canadian dollars in May, Statistics Canada said. The surplus was helped by an 11.5 percent increase in exports of energy products worldwide and a 3.1 percent jump in total exports. However, the gain was entirely because of the commodity price boom, as export volumes actually fell.

Though when looked at from a political perspective, the speculative market in Canadian oil only came about when Shell Canada completed their \$27-billion project to build 4 upgraded refinery and extraction facilities that would produce about 100,000-barrel-per-day each. (Shell Canada) "The Energy Information Administration, the statistical wing of the U.S. Department of Energy, has included recent private sector estimates that an additional 175 billion barrels of oil could be "recovered" from resources known to exist in Western Canada since the 19th Century." (Campion Walsh) these resource statistics sometimes go unpublished as the companies that have the technology to explore the true deposits potential are oil and gas companies which have no requirement to publish their findings publically. More recently (Star Phoenix) "Saskatchewan could be sitting on 25 billion to 100 billion barrels of sweet, light crude oil in the Bakken formation in the southeast part of the province, according to industry and government estimates." And take up an area 4 times the size of the UK (200,000 square miles) and some speculate that the public is only made aware of about half of the oil currently available.

Couple the resources Canada holds with the lax environmental laws set in place, and you can begin to see how a problem could arise. Canada after NAFTA's creation immediately began to voice concerns about its potential effect on the country. There are many examples like the one in 1996 where an oil company brought a gasoline additive MMT (methylcyclopentadienyl manganese tricarbonyl) into Canada for use in oil manufacturing. At that time, the Canadian government had imposed a banned on MMT. When Canada took legal action and the American company proceeded to file a lawsuit against the Canadian government filing a legal dispute under NAFTA according to Chapter 11. Under the Agreement on Internal Trade (AIT) the company sought over \$200 million from the Canadian government claiming

that America allowed the use MMT and had been proven by American scientists to show no negative physical side effects by using the chemical. This contradicted the results of Canadian scientists so the company then claimed economical damages by not allowing them to use the product. The Canadian federal government repealed the ban shortly after and settled with the American company for the amount of \$13 million. In the end going to show that local laws hold no ground in the country the company operates in and that under NAFTA, companies can shield them from any legal backlash because no laws in NAFTA exist.

In Alberta Canada, the Western Canadian Sedimentary Basin or “Tar Sands” as it is commonly called. There lies a field of oil bitumen (bitumen is heavy black viscous oil that is entirely mixed with sand and is in a state where it cannot be pumped from the ground in its natural state.) the size of Florida, which would need to be strip mined in order to extract the sediment oil. Although no other alternative currently exists in order to economically compete with strip mining. Currently the water consumption by these operations is enough to sustain a city of two million people every year, on average 2 - 4 barrels of water is required to extract one barrel of oil from tar sand. Waste water generated is toxic, due to its heavy metal contents and addition of separation chemicals. Some of the water can be recycled into the system again but cannot be filtered in an effective way to cut down on water consumption. ([Nelder](#)) “The Vast majority of the waste water is pumped into enormous settlement ponds and retained as toxic waste.” It is important to know that in the United States the only resources of tar sands primarily come from Eastern Utah, and mostly on public lands. The oil resources in Utah are estimated at 12 to 19 billion barrels. Alberta’s tar sands hold approximately 315 billion barrels of crude oil, and these rest almost entirely in an undeveloped stretch of boreal forest that cover most of the area.



The major problem with mining this difficult oil suggests that it consumes 4% of the refined fuel produced. This gas is needed to power the equipment alone needed to run the operation. Canada's natural gas and oil reserves are running out and expected to run out earlier than expected as production is set to quadruple by 2016. Numbers from the EIA and the NEB support and suggest that Canada's proven reserves of natural gas will be gone expectedly in about eight years. Professor Kjell Aleklett of Uppsala University, a recognized expert on tar sands states, "The supply of natural gas in North America is not adequate to support a future Canadian oil sands industry with today's dependence on natural gas." These companies also receive minimal oversight due to their remote location and mainly import outside consultants to verify their environmental compliance.

Former Alberta Prime Minister Peter Lougheed warned, "The clash over the environmental cost of the oil sands is inevitable, and that this will be fought all the way to Canada's Supreme Court. A primeval boreal forest the size of Florida is being utterly destroyed beyond repair, while highly toxic sludge ends up in gargantuan tailings ponds even though laws stipulate that the land must be returned to its original state." This statement is more like a prediction coming true. Canada sees more animosity building towards the exploitation of the last of the easy oil. More people monitor the mining operations and enforcing environmental laws more strictly than ever to be able to stunt the mining operations and keep them in line. Many groups and organizations online began lobbying for the restriction of drilling in

the area. But this is still a wild west of oil exploration. Being on such a large scale and benefitting the Canadian government economically, little is actually done even with a strong public resistance.

Many oil and natural gas companies operating in Canada slowly comply to environmental laws and are participating in reconstruction projects. They return the land back to its original state post mining through plantation and re introduction. Though small and not widely practiced, there is a major profit for the two countries in the selling of natural resources they hold, and it is no secret that the demand for oil in the future will need to be fed by someone. We all have a responsibly to the land and what happens to it in the future. The only way to protect these things for future generations is to stop these companies from going in and taking from the land. We need to move forward with the laws and regulations regarding NAFTA, and make actual environmental regulations to be put in place now so that our desire for oil does not destroy our future.

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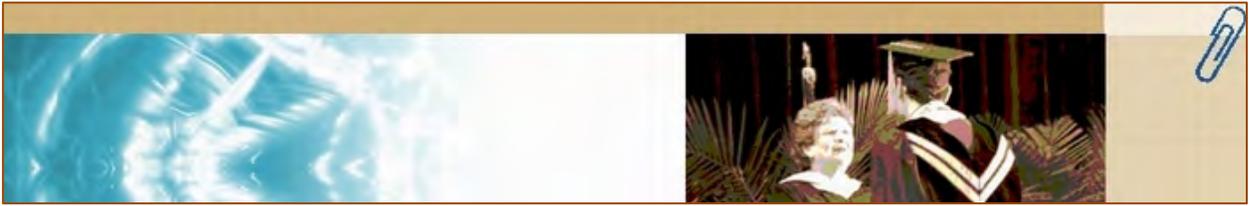
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2011 LAND Student Scholars Conference

"A Farewell to the Dunes"

Melisa Hall

The coastal areas in Michigan are diverse and beautiful. Pine trees, dunes, dune grass, and the lake itself all combine to create a setting that reminds one of bygone times. P.J. Hoffmaster State Park is one of my most beloved places in Lower Michigan. Do not let the overcrowded campground deter you from exploring the lands beauty. The campground acts as a shield protecting the natural beauty from all except those that adventure beyond. It is as if the campers collectively believe nature is best experienced on the peripheral amongst the comforts of civilization. Surrounded by trees, bug spray, hundreds of campfires, radios, and cook stoves they are satisfied that they have experienced the wonder of natural Michigan. Many fail to realize what lies beyond the camp.

Once past the campground a hush falls over the land; the atmosphere changes and the plants and animals reclaim the land. The birds twitter in the bushes and animals can be heard skittering through the undergrowth looking for food and attending to their young. The smell of cooking fires and the yells of children fade into the background. As the path continues the pavement ends. It does not end abruptly but slowly fades into the earth as if the natural world is slowly erasing human production. Underfoot the crunch of gravel gives way to the firm ground. Root systems erupt along the path and give evidence of the astounding age of the trees that line the pathway. A short walk across a natural bridge

leads the way to a meadow that sits along a small stream whose journey eventually ends in Lake Michigan.

The water in the stream glides past at a leisurely pace. This small stream has been emptying its waters into the lake for time untold and sees no reason to rush the process. Water bugs cling onto the stream's vegetation waiting for an unsuspecting tadpole or small fish to pass their way. Bluntnose minnows can be seen darting amongst the waters below. A small mound on the far bank of the stream reveals a den belonging to muskrats. These nocturnal wanderers have small food storage dens set up along the stream's shore. I will consider myself fortunate if I catch a glimpse of them in the waning light.

Cicadas, grass hoppers, crickets, and frogs all contribute to the consistent hum that lends to the music of the meadow. As they communicate and perform mating rituals the low hum climaxes into a frenzied buzz and then subsides until the cycle repeats itself. Monarch butterflies flit from flower to flower drinking in the nectar that will sustain them on their long journey south. Their brightly colored wings warn predators of the poison that lies beneath their beauty and enhances their chances at survival.

The meadow is ablaze with black-eyed susans, beach peas, and columbine. Goldfinches bounce about the asters calling out as they fly through the meadow. Meanwhile, the sun flashes off the iridescent greens, purples, and yellows of a hummingbird's wings as it feeds on the nectar and spreads pollen from one flower to the next. Their elusive movements remind me of the brilliant flashes of color thrown by aurora borealis in the northern part of the state. In this meadow a quiet sense of life is present. There is a sense of space and belonging that is lacking in civilization.

The meadow ends rather abruptly at the bottom of a hill. Here the land stretches upward and is inhabited by red pine and birch trees. The shade offers a welcome respite from the heat of the sun. The undergrowth is sparse and tree roots create a natural web of steps. Green spongy moss springs up near the base of the trees and creeps up the north side of the shaft. The trees whisper their ancient secrets throughout this wooded area. Shafts of sunlight break through the branches and throw dancing shadows on the ground. The hollow sound of a woodpecker drilling a tree echoes through the trees. Red breasted robins, chickadees, and blue jays call to one another as they hop from branch to branch far above the ground. Squirrels and chipmunks skitter across the path storing up food for the coming winter. Occasionally, a pine nut falls through the canopy only to plop on the ground. This is often followed by the frustrated screech of the squirrel that dropped it. Near the top of the hill the light becomes brighter, the air becomes clearer, and a steady pulse that surely has been present all along breaks the conscience barrier.

The crest of the hill reveals sand dunes and the seemingly boundless body of water that is Lake Michigan. Heat radiates from the dune adding warmth to the breeze that flows off of the lake. Particles in the sand catch the light and combine with the heat to make the ground shimmer. Dune grass dances in the sand maintaining its hold on the dune. Driftwood rocks lazily along the shore catching seaweed from the incoming tide. The sun is just setting against a back drop of deep clouds crowding the horizon its golden orb wavering in the atmosphere. Translucent blues in the overhead sky deepen to shades of blue and gray mimicking the great lake below. Overlaying the deepening sky are brilliant waves of color from across the spectrum. Gold and bronze meld with deep orange and rust giving the impression of flame being thrown across the sky. Lavender,

indigo, and navy temper their flare with the oncoming night. The colors of the sky are absorbed by the water and thrown back up in a prism from the crashing waves. Seagulls caw and rejoice in the beauty of the setting sun.

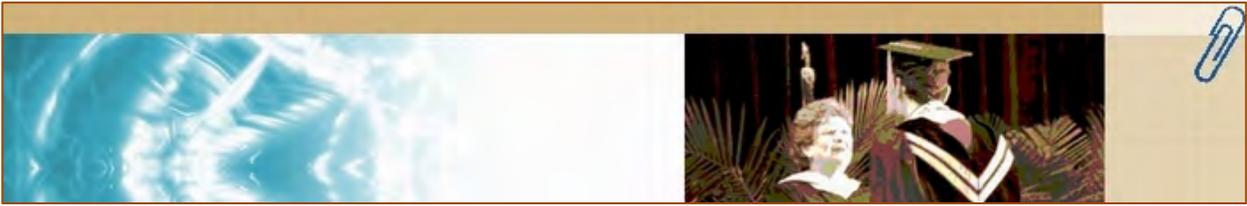
As the sun sets clouds continue to gather on the horizon. Their color deepens and the winds become more persistent. The sun has moved beyond the horizon and the lake now turns to the color of steel. The waves become more insistent as they crash along the shore. The cresting waves are brilliant under the full moon. Waves rise up and meet the light of the moon giving the impression of thousands of diamonds being tossed through the stormy surf. Up and down the coast waves glitter and sparkle against a backdrop of endless steel gray. Suddenly, a streak of light fills the sky and the moon is covered as if it had never been. Electricity fills the air. The crashing waves become a roar that is only matched by the wind. Lightning arches through the sky revealing clouds that now boil in the night. The lake churns and it becomes impossible to tell where the water ends and the sky begins. Lightning reveals how awe inspiring it can be; sheets flash in the distance, arches jump from cloud to cloud, and bolts reach for the water again and again. The ground trembles with each deafening clap of thunder. Rain begins to spatter against the sand sending small plumes to be carried away by the wind. Soon it releases a deluge across the land. There is no longer any distinction between the land, the water, and the sky. They are one entity working together in a show of strength and unity that cannot be diminished or ignored by man.

Like many Michigan storms before it, this storm abates as quickly as it began. Water dripping from the trees and the distant rumble of thunder provide a backdrop for the woodland natives as they return to their nocturnal routine. Only the most courageous

creatures are willing to investigate the aftermath. The squirrels and chipmunks begin to chatter while they evaluate their surroundings. Slowly, as the unheard signal spreads throughout the area, more animals begin to stir. The air is somehow more pure, fresh, than it was before. In the meadow the moon shines once again. The grasses are silver and water droplets shine under the watery moonlight. Across the meadow the stream can be heard gurgling as it rushes to empty its contents back into the great lake. Lightning bugs dance across the tops of the grasses and down the path bringing a sense of magic to the atmosphere. Their pulsing lights communicate a willingness to mate and ensure the continuation of the species. Their dance is a celebration of life.

Soon the meadow falls behind and gravel can be heard crunching underfoot. I know the gravel will soon give way to pavement which will in turn give way to the hustle and bustle of campers recovering from the storm. They will be cursing the weather and how it has affected their wilderness vacation. They will not have the perception to understand the importance of such storms in sustaining the natural world. Many of the campers would rather utilize the positive aspects of the wild than recognize the environment as a whole. I cringe away from reentering this reality. I fear that the world I have just left behind is quickly disappearing. Future generations will not have the opportunity to develop their sense of the natural world. The natural world will not be available to be discovered. Soon the packed campground will be extended in order to incorporate new campers. The tourists will continue to bring in more revenue for the State and this will justify the expansion. The meadow will be filled with campsites numbered G-301-G339 and the dunes will be fenced off in order to prevent erosion. We will mourn the loss of these wild spaces and ask ourselves the essential, albeit belated, question.

What could we have done?



2011 LAND Student Scholars Conference

"Percy Shelley's Hope for Mankind"

Hannah Hutson

The words, "I have a dream", are easily recognizable to many people. Martin Luther King Jr.'s speech is by now common knowledge, as is what he stood for: equality and freedom. Yet many people are not as familiar with the poet Percy Shelley, even though he stood for the same things that Martin Luther King Jr. did, over one hundred years earlier. Percy Shelley, like Martin Luther King Jr. and many other visionaries that came before him, spent his life working actively for the cause of freedom and equality between people, no matter their gender or status.

Portraits portray Shelley as pale and almost ethereal looking, with wild windblown hair and large eyes that stare off into the distance. However, there is a spark apparent in the portraits that suggests something beyond the dreamy exterior. Perhaps it is only the typical pose for those who were being painted at the time, but in Shelley's case, these portraits seem to capture him quite well. Throughout life, despite being pale and weak, he lived passionately, with an inner fire that spurred him on to be the classic poet that we know today. When he was only 19, he married Harriet Westbrook, whom he had run away with previously ("Percy").

The passion he applied to his intellectual life was seen especially in his poetry and writing, pursuits which he devoted himself to until his death. It seemed that through his works he wished to impress upon people a need for freedom, unity, love, and equality between all members of society. Through his writing, Shelley showed a great hope for the future of mankind and a society that everyone would someday enjoy.

Shelley was very much an idealist, who loved the beauty around him. His poem, "Mont Blanc", describes with great detail the beauty and majesty of the mountains. He also found great beauty in humans. One of the best poems to show this is his "Hymn to Intellectual Beauty". In this, several lines stand out to show his view of human intellect. "Spirit of Beauty, that dost consecrate/ With thine own hues all thou dost shine upon/ Of human thought or form" (Complete, 346). Shelley is speaking of a natural intelligence that every human is graced with, and makes each person more beautiful. This beauty is one that is found in most humans, if not necessarily nurtured in all of them.

In fact, in the long poem "Queen Mab", Shelley tells the story of the past, present, and possible future. Ianthe, the main character in the poem, is a young woman whose spirit is taken on a trip through space and time while she sleeps, guided by the fairy queen Mab. During her dream, she sees the past and present, where mankind is enslaved by evil tyrants and the confines of society. Yet, in the future, Mab shows that things are rather different. Time had changed society, and man was free. Through time, man's already good nature had evolved into something else, something close to paradise. "Hope was seen beaming through the mists of fear/ Earth was no longer hell/ Love, freedom, health had given/ their ripeness to the manhood of its prime" (Complete 25).

In this future, mankind was at peace, because humanity's inner nature could be fully expressed. This was the hope that Shelley held out for mankind. As George Ridenour so aptly puts it, "Shelley's poems... deal with his hopes" (3). In Shelley's hopeful utopia, "Intellectual Beauty" was given free reign, and the result was peace. Nature and man were united, "The placid ocean-deep, that rolls/ Its broad, bright surges to the sloping sand,/ Whose roar is wakened into echoings sweet/ To murmur through the heaven- breathing groves/ And melodize with man's blest nature there" ("Queen Mab" Complete... 26).

This utopia, Shelley believed, would eventually be reached by the people who worked to change the future, people like Percy Shelley himself. "Thou art the end of all desire and will/ the product of all action; and all the souls/ That by the paths of an aspiring change/ Have reached the haven of perpetual peace/ There rest from the eternity of toil/ That framed the fabric of thy perfectness" (Complete 28).

Percy Shelley, in his poetical life, is often classified as a "Romantic". This group of poets wrote mainly on the subjects of nature, beauty, and truth. Shelley was known for his eloquent poems concerning these topics, like, "Ode to a Skylark", "Alastor", and "Ode to West Wind". However, he also was well known for the poems he wrote concerning the issues that humans face, both at that time and still today.

One of these issues was the current political system and the oppression of the lower class. Shelley had both great compassion and great ambition for mankind. And, like Martin Luther King, he envisioned a future in which all men would be free. Because of the bullying that Shelley had experienced in his childhood, he knew what it was like to be under the rule of a tyrant. So he decided that he would, as he said in his poem "To Mary", "Be wise/And just, and free, and mild, if in me lies/ Such power, for I grow weary to behold/ The selfish and strong still tyrannize/ Without

reproach or check" (White 11).

Shelley's path was set. He had decided, out of his compassion for his fellow men and his passion for equality, that he would fight for those who were under the iron rule of a tyrant. His work would be a step towards the golden age of peace between man and man and between man and nature. This resolution was shown in several of his works, like the aforementioned "Hymn to Intellectual Beauty" where he asserts "I vowed that I would dedicate my powers/ To thee and thine-- have I not kept the vow?", and, "They know that never joy illumed my brow/ Unlinked with hope that thou wouldst free/ This world from its dark slavery" (Shelley's Poetry and Prose 95).

But how could he combat the current system? Shelley had no political standing, no claim to nobility that others might have been able to employ, nor was he a great leader. Often he suffered from ill health and was in no condition to physically oppose the tyranny he saw. He was also quite a social outcast, since he was an outspoken atheist (White 16). It seemed as though Shelley himself could do little to help the suffering people, but he found a way to reach the masses through the thing he knew best: writing.

Shelley's later critics would accuse him as being immature in his writings. The general view of him, it seems, is that he was a, "Mystic visionary- the 'Ineffectual angel' of Matthew Arnold, the winsome 'Child'" (Cameron 511). Shelley was- and often still is- taken as being like a little boy, full of hopes, but of little substance. Yet he was only seen as childish because of his inexhaustible optimism and hope for mankind. His childishness was really, "An unwillingness to settle quickly for less than what men really want" (Ridenour 3), and Shelley wanted freedom for mankind.

In fact, Shelley said to a friend, after writing, "Address to the Irish People": "'My 'Address' [...] will soon come out. It will be instantly followed by another, with downright proposals for instituting associations for bettering the condition of human-kind. I-- even I, weak, young, poor as I am-- will attempt to organize them, the society of peace and love'" (White 95).

In his work, as we have seen, there are many poems that talk of a better life for mankind. However, there are also several poems that can be found that are much more specifically political. Shelley had an ideal, a goal, and the current oppression that citizens were facing was not in that goal. He decided to make a stand, and his poetry reflects this. "England in 1819", is one of those specifically political poems. In this poem, Shelley describes the life that the people in England were forced to live, as well as the current state of English nobility.

Shelley begins "England in 1819" by describing the kings as, "Old, mad, blind, despised, and dying", while the princes are, "The dregs of their dull race". Despite this already harsh depiction of the nobility, Shelley doesn't just end there. He continues on to compare the royalty to leeches, feeding off the blood of their subjects. They bleed the people and country dry for their own selfish purposes until, "They drop, blind in blood, without a blow" (Shelley's Poetry and Prose 311).

Yet it isn't just the English nobility that Shelley condemns. He is equally harsh on tyrants who abuse their power. In "Political Greatness", he states, "Nor happiness, nor majesty, or fame/ Nor peace, nor strength, nor skill in arms or arts/ Shepherd those herds whom tyranny makes tame" (Complete Poetical Works of Shelley 406). In these lines, Shelley tells the tyrants that their oppressive reign will never be remembered as majestic, happy, or peaceful, and that they will not achieve greatness through their cruelty. He gives another omen of ruin in the last stanza of "Lines", "Ay, marry thy ghastly wife!/ Let Fear and Disquiet and Strife/ Spread thy couch in the chamber of life/ Marry Ruin, thou Tyrant! And Hell by thy guide/ To the bed of the bride" (Complete 364). The eventual fate of the tyrant, he prophesies, is a terrible one indeed. This warning to those who would subdue rather than guide the population is also somewhat echoed in "Ozymandias".

"Ozymandias" is one of Shelley's most famous poems and tells the tale of ruins found in the middle of a desert. The ruin is that of an enormous statue of a man whose cruelty is told in his "Frown, and winkled lip/ and sneer of cold command". With the statue was a sign that read, "My name is Ozymandias, king of kings/ Look on my works, ye mighty, and despair!" However, despite those impressive words, the ruins stand alone, and the "Lone and level sands stretch far away" (Shelley's Poetry and Prose 103). This is also a warning to those power hungry rulers; a warning that time will erase those things that they would try to achieve at the expense of their people. Like Kelvin Everest states in his essay, "Kelvin Everest on the Traveler's Dilemma", the irony of Ozymandias's words in comparison with the bleak scene shows that "It is simply true that tyranny does not last". Like "Political Greatness", "Ozymandias" is a warning to tyrants, and most likely also a warning to the rulers of the day, similar to "England in 1819".

What though, of the people? Shelley may have written a warning to the tyrants, but what words did he write to the people? What solution did he offer them to improve their lives?

The poem, "Song: Men of England", is a poem written not to the tyrant, but rather to the people themselves. Shelley urges them to stand up to their oppressors and take back that which

the tyrants have taken. In, "Song: Men of England", as a precursor to offering them a solution, Shelley asks, "Men of England, wherefore plough/ For the lords who lay ye low?/ Wherefore weave with toil and care/ The rich robes your tyrants wear". Shelley, in a slightly sarcastic manner, is asking the people of England why they choose to supply the tyrants with the things that they need to keep the people under their thumb. Why, he asks, do you give them what they can use against you? And even further, why give to them and deny yourselves the basic necessities of life?

The solution to their problem is simple, and he proposes it in lines 21-24. "Sow seed- but let no tyrant reap/ Find wealth- let no impostor heap/ Weave robes- let not the idle wear/ Forge arms- in your defense to bear" ("Song: Men of England"). These citizens of England, who are under the rule of such terrible rulers, have the option of simply resisting being lorded over. Shelley, in his compassion for his fellow men, had written this song to urge them to make a better life for themselves by beginning a revolt. In this way, the people could be saved.

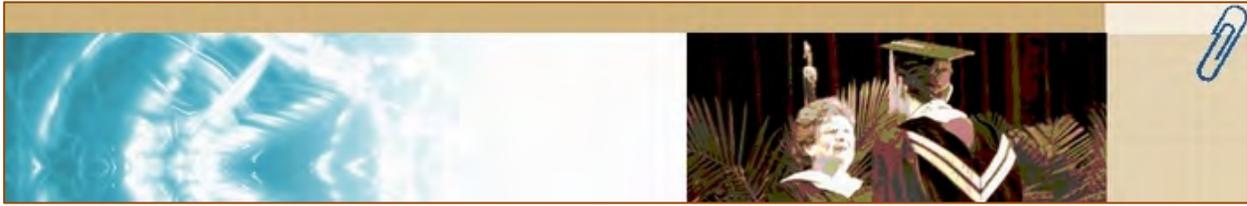
And if they did not resist, Shelley warns, they were only making the means to their own deaths. "With plough and spade and hoe and loom/ Trace your grave and build your tomb/ And weave your winding sheet-- till fair/ England be your Sepulcher" ("Song: Men of England").

Because Shelley valued human life and human intelligence, he worked tirelessly to create the utopia he was determined would someday come. This work included his war against the tyranny that he encountered in everyday life, where men and women were under the rule of a heartless monarch, forced to the position of slaves. Throughout his poetry and prose he protested loudly for the liberation of his fellow men, hoping to incite a change. Did Shelley manage to single-handedly improve the conditions of the English people or start a rebellion through his poetry? No, but who knows how his poems affected those who read them? Perhaps revolutionary leaders like Martin Luther King Jr. were inspired to action by the words of Shelley, as their ideas certainly were similar.

Although he may not have been able to accomplish as much for the cause of liberty as he might have hoped to in his lifetime, it is still apparent that Shelley had a great compassion for his fellow man. As a later critic would remark, "His commitment is to man, rather than to system" (Ridenour 12). Through his poetry, Shelley was able to express that compassion and wage his own war against tyranny.

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2011 LAND Student Scholars Conference

Are the Answers Blowing in the Wind?

Rebecca Larson

Across America, a new type of landmark is sprouting up all over the landscape. Tall towers with spinning blades are beginning to dominate the horizon. Wind turbines, windmills used to generate electricity, are becoming more and more common across the open plains of the Midwest and in the deserts of the Southwest. In short, turbines are the opposite of fans. Instead of using electricity to generate wind, they use wind to generate electricity. They are most often found grouped together in an area known as a wind farm. Cape Wind is a wind farm that is scheduled to be built in the Atlantic Ocean off the coast of Nantucket. Wind farms have fostered a great deal of debate recently as two sides square off over whether they are best for their community. In other places, such as Benton County, Indiana, people have embraced a wind farm and are planning future installations to be added to the existing one. As America reaches the height of its dependence on fossil fuels for energy, the debates are heating up over whether or not wind farms are the safest, cleanest, and most efficient way to replace fossil fuels with a renewable energy source. Those in favor of wind farms see the benefits of wind, and the method of creating electricity from it, as worth any inconvenience or cost that would be associated with the process. Those who oppose wind farms believe that the environmental impact, costs, inconvenience, and unattractiveness of wind farms

outweigh any possible benefits. Are wind farms a valid and viable source for alternative renewable energy in this country?

Those who oppose wind farms feel that ecological and environmental issues outweigh any benefits. To begin with, there are those who feel that "...it is precisely these idyllic scenes that are under threat from machines that may cover an area the size of Manhattan and be taller than the Statue of Liberty" ("Not...Beach" 47). Wind farms take up a lot of space, and blending them in with the environment is not easy. When faced with possibly having something that large in their backyard, "...suburbanites do not want to look at them and environmentalists object to locating wind farms in scenic areas or along coastlines" (Nersesian 312). Due to the nature of wind, these farms are built in remote areas that many people find scenic, and there are those who object to ruining the natural beauty of an area with giant wind turbines. In addition to visual consequences, there are ecological consequences to consider. Unfortunately, "...turbine blades can hit speeds of 180 miles and hour at the tips, which means they're moving so fast that birds or bats can't see them" (Cohn 577). One of the largest concerns raised by environmentalists is the danger that wind turbines present to birds and bats. These man-made structures are being built in the migratory paths of birds and the hunting grounds of bats. "Wind turbines...kill thousands of birds each year, especially raptors such as eagles, hawks, and vultures" (Langwith 84). This is a price that many environmentalists are not willing to pay. Aesthetic design, visual appeal, and environmental concerns are only a few reasons people object to wind farms. Fortunately, those in favor of wind farms feel the ecological and environmental concerns have effective solutions. According to Nersesian, opposition can be overcome

by designing less obtrusive and/or more pleasing designs, blending a line of wind turbines with the contours of the land, and increasing the separation between a wind farm and residential areas (312). In fact, the turbines could themselves become an attraction along with the other landmarks that people travel to visit. "In 2002, a survey of visitors to the west of Scotland...found that only 8% said their feelings were negatively affected by the blades, some 43% said the mills made them feel better about the region" ("Not...Beach" 47). Wind turbines can be representative of a society that is concerned about its future and wants to move forward with responsible choices in electricity production. However, the danger to birds is very real and needs to be addressed. In his book, Cohn outlines the following design changes: poles with fewer places to roost, redesigned turbines to discourage birds from landing, and studying acoustic and other means to deter them from flying around turbines (578). The threat is serious, but with advances in research, this is a problem that can be overcome. It could even be as simple as Nersesian's proposal that the killing of birds can be prevented by using radar to detect a flock of birds flying near a wind farm and then using that information to know when to stop the blades from spinning (312). In light of this information, wind turbines aren't necessarily a detraction from the aesthetic beauty of a location, and creative design and technology can significantly reduce the ecological and environmental influence of wind farms.

In addition to the ecological and environmental concerns, opponents feel the more practical concerns of cost and conveniences are reasons people object to wind farms. In light of their size, "...large wind windmills make maintenance inherently difficult and do not make maintenance costs easily predictable" (Shuster 141). Windmills are

frequently breaking down. Difficult repairs can be costly, and something as tall as the Statue of Liberty does not easily lend itself to being repaired. When faced with choosing between traditional sources of energy and wind turbines, "...wind turbines cost twice as much, per kilowatt hour, as building new gas fired plants" (Langwith 85). In an economy such as ours, this fact must be taken into consideration when making choices about alternative energy sources. On a more practical level, "Many people fear that turbines will instantly depress the value of property nearby..." ("Not...Beach" 48). So not only are they expensive to build and maintain, they can damage the value of the property they are near. Another cost to consider is the challenge of connecting these turbines to existing power grids. To be effective, these turbines, "...will require massive, expensive extensions and modifications to the existing U.S. power grid" (Shuster 147). These wind farms are built in rural areas that aren't serviced by large power grids. In order to get the electricity they generate to the people that need it, the turbines have to be integrated into the power grid. This will be expensive. In fact, "...fortifying transmissions systems to carry bulk energy generated in remote areas to populated cities [is] too expensive and too large of an undertaking" (Ireland 20). Not only is it expensive to keep the turbines functioning, it is too expensive to get that electricity to the people. It is such a dilemma that Ireland feels, "Limited transmission capacity has been the greatest factor stunting the development of renewable resources in much of the western United States..." (18). To sum up the challenge, Gresham says that in order for wind farms to be a legitimate source of energy, there has to be a place to store the energy produced; that place needs to be in location with consistent winds, and that place has to be found (19). These are problems that are not inherent in traditional forms of electricity, and these are

challenges that are going to cost a lot of money. Issues of expense, transmission, and storage will have to be addressed if wind farms are to make a significant energy impact.

In light of the concerns about cost and convenience, proponents believe there are some realistic and practical solutions. “Overall costs are expected to decrease because of higher volume, and advances in manufacturing and technology due to research and development” (Berinstein 102). This is the simple principle of supply and demand. As more wind farms are built, there will be a higher demand for turbines, and the cost will go down as companies compete for business. Also, advances in technology will lead to more cost-effective ways of producing turbines and more reliable parts that require less maintenance. Wind farms can even be a benefit to the economy. In fact, “...wind power could produce nearly three times as many jobs per unit of power produced as coal” (Brune 149). There isn’t an area of this country that couldn’t use more jobs. There is also “...no consistent relationship between blades and property prices” (“Not...Beach” 48). People are concerned that turbines will affect property values, but there is no proof that they do. The issue of transmission is a legitimate concern; however, Ireland proposes that renewable energy generated close to the point of consumption is generation power at prices comparable to grid-produced electricity (121). In other words, use the electricity near where it is produced instead of trying to link the turbines into large grids that are far away. If, however, it is necessary to link into a large grid, “...wind farms can be developed and linked to the electrical grid more rapidly and cheaply than other energy technologies” (Heller 12). The reality is there is going to have to be a switch to alternative renewable energy resources. Using the most cost-effective form only makes sense. There is also the project that Ireland discusses in

which electricity produced in the American Southwest could be transported to populated areas through a one-of-a-kind transmission hub designed for renewable emergency (19). Transmission is an expense that needs to be addressed, and with the help of creative thinking and modern technology, that problem is being solved. When all is said and done, “Dedicated wind...power systems...always make sense whenever the back-up power system burns fossil fuel” (Shuster 142). Despite arguments to the contrary, cost and convenience are not valid reasons to reject wind farms as a valid and valuable sources of alternative energy.

Finally, once all the arguments have been made, there are the statistics to consider. No matter which way it is presented, “...wind turbines can be erected in [three] months-and they operate without spewing the green house gases that fuel global warming” (Hostetter 39). The simple fact is “Even a small...turbine will prevent twelve hundred tons of carbon dioxide from being released into the atmosphere annually” (Brune 160). In the light of the condition of our environment, that is a realistic result that cannot be ignored. Less carbon dioxide in the air is better for everyone. Currently, “...wind energy plants produce enough electricity on a typical day to power nearly 7 million American homes” (Heller 12). That could make a significant reduction in the amount of greenhouse gas emissions that are being released into the atmosphere. Predictions indicate that “...wind power could provide 20 percent of U.S. electricity needs by 2030...” (Heller 12). That much electricity could be produced by a resource that is free and constantly renewing. For example, it is believed that “Texas, Kansas, and North Dakota together could produce 100% of America’s electricity” (Caldicott 169). Even if that estimate is high, replacing a significant part of electricity consumption with a

resource that is free and available to everyone only makes sense. From an economic perspective, "...large corporations pay farmers \$2,000 to \$5,000 per machine to rent their land..." (Caldicott 169). This would be an enormous benefit to cash-strapped farmers who are barely getting by. Whether people like it or not, "...wind power has been the fastest growing source of energy in the past twenty years, as its costs have dropped by more than 90 percent" (Brune 158). This is a technology that is becoming more cost-effective and efficient and, as a result, is here to stay. In fact, "...U.S. wind power capacity has grown by an average of 32% each year for the past five years, 2004-2008..." (Neville 30). When the figures are tallied, there can be no denying that wind farms will play a significant role in the future of renewable energy in this country.

In light of all the arguments presented, wind farms are a viable and valid source of alternative renewable energy in this country. While the opposition raises valid points, there are solutions to the ecological and environmental concerns. Wind farms can be located strategically and advancements in technology and developments in design are eliminating the threat to birds. Cost and convenience are also not valid reasons to reject wind farms as energy sources. Wind farms create jobs, can be located close to the communities they serve, and if transmission is required, it can be done more cheaply than other alternative sources of energy. Finally, the numbers don't lie. There is compelling evidence that windmills reduce greenhouse gas emissions, have the ability to reform energy use today, and can potentially make a significant impact on energy use in the future. Realistically, wind "...will not be able to take the place of oil and gas is running [highly complex systems] at gigantic scales..." (Kunstler 131). There is too great an energy demand in this country to ever be able to completely replace it

with renewable energy sources alone. In truth, "...wind energy can only displace, not replace, fossil fuels" (Nersesian 308). Energy demands are only going to continue to increase over the coming years and, eventually, the supply of fossil fuels will run low, and we will need another source of energy. Replacing even a portion of our energy supply with renewable energy is the only responsible thing to do. Beginning the transfer to clean, renewable energy makes sense for the future of this country. "Embracing clean energy is not an obligation, it is an opportunity" (Brune 147).

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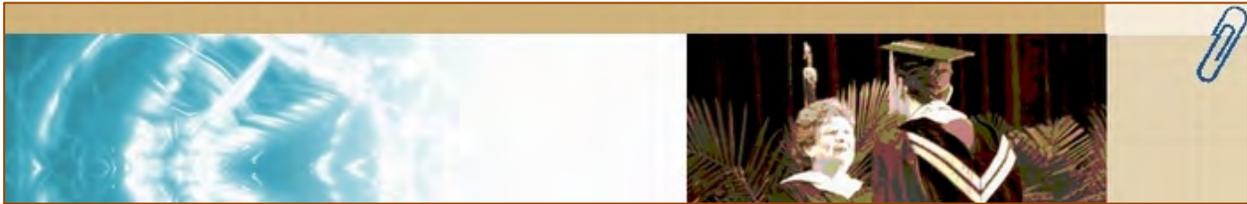
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2011 LAND Student Scholars Conference

"Torture: Taught and Trained Through Media"

Jaekook Lee

"Torture: the act of inflicting excruciating pain, as punishment or revenge, as a means of getting a confession or information, or for sheer cruelty" ("Torture.").

Homo Sapiens are the only species that torture their own kind. In our history, torture was anything but a myth. History books explain about incidents of torture with the Spanish Inquisition and the crucifixion methods of the Roman Empire. Human torture is also depicted in two diary books: Man's Search For Meaning, written by Viktor Frankl, and Having Our Say, written by the two African American sisters, Sadie Delany and Bessie Delany.

Man's Search For Meaning depicts Doctor Viktor Frankl, a Jewish psychiatrist in Europe, when he was an inmate in a concentration camp for three years, under the Nazi regime. Besides the hundreds of prisoners burnt and gassed to death and dying from a typhus outbreak throughout camp, Frankl explains how many prisoners were crudely tortured each day. He says, "In camp, a small time unit, a day, for example, filled with hourly tortures and fatigue, appeared endless" (92).

In Having Our Say, the Delany sisters tell detailed stories of what they went through living a hundred years being minorities. Bessie Delany describes how African Americans were senselessly tortured and lynched by caucasians during the oppressive Jim Crow days: "Why, there was one story I heard of a pregnant colored woman who was hung from her feet, and they slit her abdomen open and let the fetus fall out, and she and her unborn baby just died right there, like that" (77).

The above examples are the same in the way that the torture took place publicly and was initiated by organized groups: Nazis for concentration camps and caucasian majorities for the lynchings. In the current worldview, such persecuting organizations are no longer allowed. We live in a world where the United Nations, a global institution, bans torture while promoting world peace. Michael Garcia, a legislative attorney, explains the torture banning convention known as the United Nations Convention Against Torture, in his CRS report for Congress, titled, "U.N. Convention Against Torture (CAT): Overview and Application to Interrogation Techniques." He explains how the CAT convention was organized to criminalize all acts of torture under any circumstances. Garcia stated that over 140 countries joined this group. Perhaps this convention will result in many institutions in the world no longer condoning barbaric tortures. But there is still an entity, not federal or affiliated with any government, which makes it easy to dismiss, that still feeds the public practices of torture: the media of horror movies and video games.

There are numerous movies and video games that involve excessive violence and torture. Some examples of such movies are *Faces of Death*, *Hannibal Rising*, *Texas Chain Saw Massacre*, the *Saw* movie franchise, and *Hostel*. From *Saw 5* of the *Saw* franchise, viewers see torture enacted.

[Jigsaw](#): "Hello Seth, I want to play a game. Right now, you are feeling helpless. This is the same helplessness you bestowed onto others. But now, it's unto you. Some would call this karma. I call it justice. Now you have served five years of what should have been a life sentence, for murder. A technicality gave you freedom, but it inhibited you from understanding the impact of taking a life. Today, I offer you true freedom. In thirty seconds, the pendulum will drop far enough to touch your body. Within sixty seconds, it will cut you in half. To avoid the pendulum, all you have to do is destroy the things that have killed... your hands. You must insert your hands and push the buttons to start the devices before you. Your bones will be crushed to dust. Will you destroy the things that have taken life in order to save one, Seth? Make your choice."

Seth ends up dying with his hands pulverized and his body sliced in half. This quote is from one *Saw* movie out of seven, all of which have the same qualities of excessive torture and gore. This movie series has depicted many extravagant ways a human could be tortured; cutting open a live person's body in *Saw*: a woman shoved into a pit full of sharp syringes in *Saw 2*; a nude woman getting frozen alive in *Saw 3*; a detective whose head gets bashed by two ice blocks in *Saw 4*; two people whose arms were sawed in halves in *Saw 5*; a man melted alive by hydrochloric acid injections in *Saw 6*; a woman's upper and lower jaw ripped open in *Saw 7 3D*. Even though these scenes are terrifying to view, the seven movies have made tremendous sums of money. According to the online article, "Horror Producers Play All the Twisted Angles" published in the *Daily Variety*, the first four *Saw* movies cost under \$25 million to make, but ended up making \$500 million at the world box office. Now, the franchise of the seven *Saw* movies has grossed over \$730 million worldwide and has been added to the *Guinness Book of World Records* as the most successful horror franchise in the world.

Besides the *Saw* series, another movie depicted massive amounts of torture is *Hostel*. Released in 2005, this movie is about backpackers in Europe kidnapped and sold to people who torture them in various ways: burning a woman's eye by blow torch, cutting a man's Achilles' Tendons, and chopping a person's fingers off. The movie also shows a child, with a rock in hand, bashing a man's skull. Both *Hostel* and the *Saw* series represent the numerous Western torture movies, all of which visually teach how people suffer in agony.

In the past decade, movies showing cruel torture methods came out in Eastern cultures also. *The Chaser* is a Korean movie based on a true story that depicts a psycho torturing prostitutes before killing them and burying them in his back yard. *Battle Royale* is a Japanese movie released in 2000 that depicts the senselessness of human torture. The movie has a similar plot to that of *The Lottery*, a short film, based on the short story written by Shirley Jackson for an issue of *The New Yorker* in 1948. *The Lottery*, depicts a small town village, where they have a yearly lottery to choose which one of the inhabitants gets stoned to death by everyone in the village. In *Battle Royale*,

the Japanese government randomly chooses one high school class, among all throughout Japan, by an annual lottery, and the chosen class students are abducted and placed on an island. These students have to kill each other with various weapons and tools until only one of them survives. Suffice it to say, both Japan and America have put gruesome torture ideas into their films, *Battle Royale* and *The Lottery* respectively. But as if showing people suffering is not enough, the two nations take it a step further. Their video game industries, Japan's Sony *Playstation* and America's Microsoft *Xbox*, manufacture games that allow people to play the role of the torturer. The examples for such video games are *Grand Theft Auto III*, *God of War III*, *Manhunt*, and *Gears of War II*.

The first torture game I encountered was *Manhunt*, released for Sony's *Playstation 2* in 2003. The object of the game was simple; I had to sneak around to find gang members and execute them in the most brutal way possible. I shot several gang members' heads with a nail gun. I decapitated someone's head by hitting it with a baseball bat. But what I remember most, was torturing someone with a paper bag. The game had a level system for execution: white, yellow, and red. When the targeting system to a gang member was colored white, I suffocated him. When it became yellow, I used the plastic bag to cover his head as I kned it repeatedly. Finally, when the target system became red, I bombarded him with punches, choked him, and snapped his neck as if he was not a human being. I felt power as I was encouraged to be as ruthless as I could be while being left comfortably numb to the consequences of my acts. Five years later, a game came out, with similar stimulant for my violent nature, only with much better graphics.

Microsoft released *Gears of War 2* game for the *Xbox 360* in 2008. Compared to the game *Manhunt*, the focus of this game is to find visceral ways of torturing people as it allows players to mutilate a human being, down to his organs. After a player shoots a person and get him down, the player can go near the downed enemy and choose one of many execution moves. With the game's signature weapon, the "Lancer," a futuristic gun with a chainsaw bayonet attached to the bottom, I already sawed through hundreds of human bodies with this weapon. With my excellent headshots with

the sniper rifle, I literally popped people's skulls like gushing balloons. Three seconds after tagging grenades on my enemies, their bodies blow up to be disfigured pieces of meat. I got carried away by the sheer power I felt as I viscerally executed them. Such a rush is accentuated by the detailed graphics of chunks of intestines, decapitated heads, and organs rolling downhill. Racking up such body counts gave me ego, no remorse.

The movies and video games mentioned above were all quite popular and gained high profits and attention from people across the world. But, the influence of these movies and video games is not just entertainment; they educate about torture methods and desensitize people to it.

Just as with anything, learning about torture first starts with novel ideas and images; exposure to torture movies and video games provide knowledge about the extent of torture, stretching our imaginations of it. Coincidentally, from these media images, people can visually learn and see how such cruel methods of torture can be tested on a human being. But is this not hypocritical? Contemporary worldviews about torture, perhaps pioneered by the Convention Against Torture by the United Nations, ban it in all forms. Then what good would it do to provoke inventive thoughts about torture in minds of people through such media?

Regardless, the stretch of these torture ideals spreads throughout mainstream culture, as sure as a pathogen. In a sense, torture movies are related to pornography that depicts women abused. Reactions from viewing may not be sexual arousal, but many people feel a thrill from watching torture scenes in movies. David Myers discusses how researchers Edward Donnerstein, Daniel Linz, and Steven Perond found out there is no better way to get people to react calmly to the torture and mutilation of women than to show a series of film where the violent content increase with each film. Most people today tolerate media images of women abused and it is that tolerance that feeds real-life abuse and rape (Myers). Would not the same go for torture images in movies, feeding real-life torture? After all, trends are influential, which torture in movies sure is.

It is this trend in media that develops people to be desensitized by the constant exposure of torture. Like any habits, constantly viewing graphic scenes of human bodies deformed by torture can numb the viewer of the idea that such conducts are terrifying. After watching the *Saw* movie for the first time, I got sick to my stomach. I could not fill my stomach with anything until the gory images flushed out of my head. But as I watched the sequels, one by one, the torture scenes in those movies started to feel not as horrifying. Instead, it felt normal and habitual. By the time I watched *Saw 4*, I found myself filling my gut with spaghetti while watching a human stomach being cut open on screen.

Unless the gore got sicker and sicker, the scenes no longer stimulated me. In this sense, torturous content in media is like a drug. With repeated exposure to the same dose of a stimulant, a person no longer feels the same high. Thus, we become numb to the images of torture like we develop tolerance to drugs. There needs to be an increase in dosage to achieve the same rush, when viewing torture in movies or playing the role of a torturer in video games. Yet according to John McDonald, a counselor with twenty-five years of experience, such repeated exposure is dangerous. Such methods encourage disassociation of one's identity with the act of torture; by constantly playing the torturer in video games, one could associate the torture conduct done by the role of the torturer, not by his inner disposition. Furthermore, McDonald said such exposure could disassociate the victim from the act as well; instead of being valued as a human being, repeated exposure of torture through media could get the victim to be considered as a piece of meat. As a result, from the perpetrator's view, this justifies torture, prompting no remorse.

But the real dangerous factor is the society that allows the spread of torturous ideals through media. We live in a society that allows torture contraptions to be sold in stores and through internet. The store Sleeping Tiger, located in the Grand Traverse Mall in Traverse City, Michigan, sells one of the replica devices used to cut a person's throat from the movie *Saw*. Selling such torture tools is potentially harmful because realistically, what good could come out of buying weapons that were designed to create harm?

Torture movies and video games are proof of a trend enough, but commercialism of such weapons proves that our society, instead of hindering, permits such sales. Diane Emiling, a professor with a Ph. D in Sociology with twenty-five years teaching experience states, "The United States has a higher rate of violence. We encourage it. There is nothing in our culture that says it is not OK. Our society supports [torture] so much without saying anything is wrong with it." It is dangerous to live in the foundation that supports torture, because common sense springs from what our society teaches us to think. "When the threshold of violence and torture is lowered, the usual restraint we would expect is also lowered" (Emiling). Like alcohol lowering our inhibitions, our society allows us to think and behave without inhibitions. The instigators of media that promote such sales are responsible, but so are we, the consumers. Furthermore, everyone in this society should be aware of the potential harm of such movies and video games that could be simply downloaded via the Internet.

After all, we live in a society where people post videos of cutting their own fingers, a person getting hit by a semi truck, and someone committing suicide. Such websites are only a click away in our computer screens. Also, there are people who have created a role playing game to relive the Columbine shooting in 1999. According to a news article for the *Curriculum Review*, "Super Columbine Massacre RPG is the name of a shocking Web-based video game that enables players to assume the virtual identities of Eric Harris and Dylan Klebold as they massacre classmates and teachers at Colorado's Columbine High" ("Columbine killings inspire video game").

Originally, according to an online article, "'Killer' Video Games Do Not Produce Killer Kids, According to Sociological Analysis," it was believed that Eric Harris and Dylan Klebold went about the killings after being much influenced by playing the violent video game, *Doom*. Karen Sternheimer, a sociologist for the University of Carolina mentioned in the article, claimed it was not just the habit of playing violent video games that resulted the Columbine shooting. She was quoted as saying, "Placing the blame on video games exonerates the environment that a child lives in that might nurture violence:

poverty, instability, family violence, unemployment, and mental illness.” Furthermore, there are likely many people who do not believe video games promote such aggressive behavior.

But there are incidents where game players have evolved into murderers. A player of the game *Manhunt*, mentioned above, went on to perform the brutal murder of a teenager in the United Kingdom. In an online BBC news article, “Manhunt Game Withdrawn by Stores”, seventeen year old Warren Buffett, planning to rob Stefan Pakeerah, “savagely beat his victim with a claw hammer and stabbed him repeatedly after luring him to a local park.” In the article, Pakeerah’s parents claimed Buffett was obsessed with the *Manhunt* game; Pakeerah’s father claimed, “It’s a video instruction on how to murder somebody, it just shows how you kill people and what weapons you use.” Pakeerah’s mother added, “When one looks at what Warren did to Stephan and looks at the brutality and viciousness of the game one can see links.” After all, the game engrossingly promotes repeated torture with different weapons for higher points. But perhaps this example alone is not sufficient enough for skeptics to believe torture games are catalysts for torture crimes.

On another occasion, the immensely world-famous *World of Warcraft* game was also accused to result the death of a teenager. The online CTV news article, “Teens Moved From Online Violence to Real-life Murder,” explains two teenage boys, sixteen and eighteen, who raped and killed eighteen year old, Kimberly Proctor before mutilating and burning her body under a bridge. These teenagers came up with code words to initiate the attack, maps of where to dispose her body and what kind of fuel to buy to burn her body with (Rossington). According to the article, these teenagers were caught by the police after telling their friend on *World of Warcraft* game what they had done. The article also states, one of the teens admitted the murder did not feel like what he thought it would.

These gamers of *Manhunt* and *World of Warcraft* played these games in real life. Like McDonald said, these players could not disassociate virtual reality from reality. Instead, they associated the characters they killed in the video games with the teenagers in real life, perhaps thinking the

consequences would be the same as it was in the gaming world, none. In other words, by imitating what they did in the gaming world, they ended up murdering real people.

The incidents above are about people who played video games with a lot of torture content. But such images could also cause a lot of harm if exposed to people who had been tortured in real life. “Aware” in Billings, Montana, is a group home for severely disturbed youth. One of its therapeutic service technicians, Tina Matthews, handles teenagers who can hardly get through a whole day without feeling emotionally tortured due to their childhood memories of being abused. According to her, the teenagers constantly harm themselves by bashing their heads against a wall or breaking glasses, and they laugh talking about dismembering people with a chain saw, thinking it is funny. These victims of torture could not understand that such an act is terrible because they themselves were scarred from their past. According to Matthews, if these kids see any violence from media, they will try to copy and repeat it, because they think that is the norm. “If they saw a movie with a kid bringing a gun to school and kill teacher, they think that is how it works and will try to imitate it which is why we have to strictly keep all the media they watch PG” (Matthews). As unfortunate as it is, such victims of torture, if met with media stimulants, have great potential to become the torturers themselves.

Some might think that there are not many in the world who would torture or those who were tortured when growing up. Yes. Most likely, people would rarely harm others. But are not many murders spontaneous acts by normal people? Do not such harmful crimes instigate with ideas and initiated when violent motives nullify inhibitions? Is it so hard to believe that flow of torture methods through media can enhance this process?

Most people would say, “I would never become a torturer.” But the real question is: could anyone predict incidents of torture? Meaning, who can absolutely guarantee that you or your children cannot be the victims? Could robbery-gone-wrong victim, Stefan Pakeerah, have predicted Warren Buffett was going to stab him with moves he learned from *Manhunt*? Could rape and murder victim, Kimberly Proctor, have predicted the two teenagers were going to mutilate her body just like they did so in *World*

of Warcraft? Furthermore, is it not our society, by permitting the media to spread ideas about such torture methods that raised the chance of these massacres to happen? Finally, are you not one of those who live in this society and support and fund that media, thus exposed to the same torture contents through television and computer screens?

These tragedies question the integrity of man. One incident of torture should be a wake-up call prompting us to be rational regarding these torture fantasy movies and torture fetish games. We may not publicly stone people as they did in medieval times, but our media desensitizes potential torturers.

With shame and humility, I admit perhaps I myself was becoming a torturer. I watched many of the movies mentioned above. I practiced the torture moves in video games described above. I confess. I felt a rush as I was injected with images of people being brutally murdered in *Saw* movies and as I ejected my violent urge as if I was blood drunk to savagely slaughter many in *Manhunt* game. Each time I inserted the DVD or video game disc, I became morally bankrupt, as the television screen showed the visual or virtual breeding ground of torture, teaching and training me to devalue a human being.

But after asking myself, 'How will doing what I do stimulate my intellectual development in college in any way?' I learned that there is absolutely nothing beneficial about my ex-habit. Perhaps we should all ask ourselves some objective questions: What real good ever comes from this kind of media? When watching someone get unjustly and unfairly tortured, as we comfortably sit and digest popcorn in the theatre, are we not ingesting methods of torture in our minds? Do we ever utilize critical thinking or creative thought processes when watching these movies, or think nothing more than 'I am glad that did not happen to me?' Are there no better ways to kill time than playing video games and reading the instruction manual that says "Press B" to kill someone by sawing through them?

Furthermore, if such media with torture content was removed for good, would it have such a negative effect on popular culture? Would Hollywood run out of ideas if not making torture films?

Would the companies of *Playstation* and *Xbox* go bankrupt if they lowered the excessive torture content in their games?

Perhaps, just like on all cigarette packets, the movie and video game companies should put more elaborate warning labels and images on DVDs and video game cases: "Warning: contents are mental poison. They deprive you of moral sense." Hopefully, there would not be as many people doubtful with "torture viewed, leads to torture practice" as there are those who still doubt "cigarettes lead to cancer." We must not follow the trend of thinking such media will do us no harm and be aware that our media IS the torture tool.

It would be easy to judge the American citizens during Jim Crow days, those that stood by and let African Americans be lynched. The same would go for Germans who did not voice the immorality of Nazis that burnt Jews, who instead, supported the regime by doing nothing about the act. McDonald said,

"Such acts of torture demean and dehumanize the tortured, the torturer, and anyone in society that allows it. When society condones or passively accepts this practice it undermines the culture and there is no reason I can imagine that would counter the effects of this practice."

But were the people back then aware that such acts were wrong? Or were they doing nothing more than conforming to the society that prompted them to feel such acts were acceptable? We must view ourselves objectively as well and prevent our future descendants from criticizing us. We must not disassociate ourselves from the responsibility to censor the torture-feeding-media. Hopefully then, we can insure no future generations trace the roots of current torture crimes to learning by media.

4,089 words

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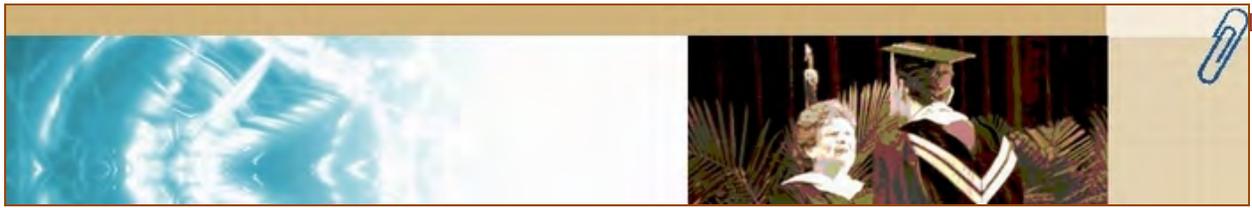
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2011 LAND Student Scholars Conference

“The Cost of Excellence: Understanding Goethe’s Principle of Compensation and its relation to Human Development”

Christopher M. Morone

There have been many great intellectuals in human history. Similar to Plato’s “Allegory of the Cave” it has been the responsibility of these intellectuals to lead the unenlightened from out of the cave and into the light. Acknowledged geniuses such as Socrates, Nicolaus Copernicus, Albert Einstein and Sir Stephen Hawking have all led humanity from its early primordial beginnings to the heights of human knowledge and technology we witness in civilization today. But maybe no one person was as influential as Johann Wolfgang von Goethe. Goethe was one of humanity’s last true polymaths. He composed many important literary works and established key principles in many different fields that have had a profound influence on his contemporaries throughout 19th century Europe and the world today. Ralph Waldo Emerson once stated that one cannot read Goethe without being influenced by him “for all before Goethe are ancients, and all who have read him are moderns.”(30) Not enough attention is paid to Goethe and his works outside his native home of Germany. The position he holds in German literature and knowledge is similar to the reputation Shakespeare holds in most English-speaking countries.

Johann Wolfgang von Goethe was born 28 August 1749 in Frankfurt-am-Main, Germany. It was a time when drastic change was about to occur. Revolution was to break out within thirty years, in France as well as in America. Social, religious, and political transformation was on the horizon. Capitalism,

Communism and Protestantism would soon overthrow long established Monarchies across Europe and the Vatican. Technology was growing at an ever increasing rate, The Industrial Revolution was about to spread like wildfire across Europe, North America, and eventually the world. This is a period that would alter human history forever. This is the period Goethe was born into.

He was a member of an aristocratic German family. His father Johann Caspar Goethe was a councilor to the then Holy Roman Empire. His mother Catharina Elisabeth Goethe was the daughter of Frankfurt's mayor. His father, who saw a deficiency with Europe's educational system, hired private tutors who instilled Goethe with a wide variety of lessons ranging from language (Latin, Greek, French, and English) dancing, riding, fencing, theater, and painting. Although having access to an abundance of knowledge, Goethe's passion was the study of literature and the arts. In his own autobiography Goethe states of this early gravitation towards literature, "I had from childhood the singular habit of always learning by heart the beginnings of books, if an ever busy imagination, of which that tale may bear witness, led me hither and thither, if the medley of fable and history, mythology and religion, threatened to bewilder me, I readily fled to those oriental regions, and found myself at once in the greatest solitude and the greatest society."(114-129)

As with other great polymaths, Aristotle, Leonardo da Vinci, Benjamin Franklin and the like, there inhabited an uncommonly curious nature within Goethe. His knowledge materialized from his studies on an array of different fields. Natural, scientific, sociological, and philosophical issues always seem to manifest within his work. Goethe strived to understand humanity, nature, and in the end himself. I argue that nothing may be as crucial to understanding his works and the study of philosophy then Goethe's principle of compensation.

Goethe's theory of compensation actually first manifested within his early scientific studies on mammalian evolution. His principle developed from researching the inverse development of horns and front teeth in the upper jaw of mammals, Goethe explained "the lion which like all members of the cat

tribe grow both upper incisors and also very long and powerful canine teeth, cannot in consequence grow horns.”(Wells 19-20) The principle of compensation can also be traced back to “Politics” by Aristotle. Aristotle introduces this principle to explain how the Greek state (which was in political turmoil at the time) could be salvaged by collectively sharing in every aspect of society between the classes.(21-34) Similarly, if Sir Isaac Newton’s third law of motion “To every action there is always an equal and opposite reaction” revolutionized the understanding of science and physics. Goethe’s principle that states “Nothing can be added to any part of nature without something being subtracted at a cost of another” has the same sociological and philosophical meaning.

In Tantillo’s book *The Will to Create: Goethe’s Philosophy of Nature* it is stated that “without an understanding of this principle of compensation, Goethe argues that humans will never be able to recognize, foster, or create truly wonderful things or discover the relationship between both natural beauty and human freedom.”(110) Goethe also specifically believed that the only way to achieve excellence was through balance. In contrast; our society today seems to be quite unbalanced. Individualism fueled the creation of democracy, human rights, and equality. Conformity is an issue that directly contradicts individualism. It is a phenomenon that affects many teenagers and adults, especially in today’s society. Being “different” can also be seen as “unacceptable” and many people feel pressured to integrate with the rest of society to become accepted. Likewise human knowledge and technology has grown rapidly, because of these advancements people are now living longer, healthier and happier. These same advancements have also introduced modern day threats like nuclear warfare, global warming, and identity theft. Today’s educational system is in a state of imbalance as well. School lessons are now more career-oriented and students are lacking the broad-based learning they had received in the past. I contend that by studying the works Johann Wolfgang von Goethe we can better understand these issues and how they will ultimately affect our future society for better or for worse.

To truly understand the works of Goethe and their meanings, we must always apply his principle of compensation because it is continually present. I believe that by applying this principle to the readings of Goethe's *The Sorrows of Young Werther* (**Die Leiden des jungen Werthers** -1774), *Wilhelm Meister's Apprenticeship* (**Wilhelm Meisters Lehrjahre**-1795), and *Faust Parts I & II* (1832), we can better comprehend the costs associated with our gains in human knowledge, technology, and society as a whole today.

The Sorrows of Young Werther (1774) was Goethe's first major success and novel. The novel is believed to be an auto-biographical account of his love and relationship with Charlotte Buff, who was engaged to his good friend Christian Kestner. Werther a lover of nature, literature, and the arts becomes infatuated with the young and beautiful Lotte. The only problem is that Lotte is about to marry another man, Albert. Through out the novel Werther's passion for the engaged Lotte begins to fuel a metamorphosis within him that will eventually lead to suicide. I contend this transition has a direct connection to the understanding of how individualism and conformity both play important roles in our present society.

In the novel Werther begins as a man who is contented to live the simple life of a painter. The literature itself is presented in the form of Werther's daily dairy entries, similar in form to modern day blogs or "tweets". At the start of the novel Werther seems to be a man full of self-confidence and excitement for the future. Before meeting and falling in love with Lotte, Werther seems to enjoy nothing better than being alone amongst nature tending to his paintings. He says "I feel most contented here. Solitude is precious balm to my heart in this paradise. Every tree, every hedgerow is a posy of blossoms, and something one could wish to be a part of, floating in a sea of wonderful scents and finding all one's nourishment."(26)

By the end of the novel Werther is a reduced to a dredge of a man. He is now a totally different person than the Werther we where originally introduced with. He has labored and adjusted in every way

possible to earn the love of his beloved Lotte. His passion for Lotte has consumed all aspects of his life, causing the loss of his job, his love of painting and the arts, and his fondness of nature and life itself.

Werther states in his final letter sent to Lotte just before his suicide “Ah’ how attached I have been to you! How impossible it has been and will be to leave you. Ah I little thought that my path was leading me this way! They (pistols) are loaded. It is striking twelve! So be it! Lotte! Lotte, farewell!

Farewell!”(133) I believe that completes Werther’s metamorphoses from a man who was satisfied with whom he was, to a man who is driven to conform to gain the love of Lotte.

Individualism can ultimately be foreseen as good thing. Empowering of the individual has led to the end of slavery, women’s suffrage and human equality. But as the principle of compensation states “every gain must have a cost” individualism also leads to conformity. Whether in high school or adulthood the pressure to conform is a strong one. Many people now only value themselves by how many friends they have on Facebook, or how many Twitter followers they produce. Goethe left his literature open to many different interpretations and views by the reader. This is why I perceive his literature to be so inspiring, refreshing and relevant to any generation. By applying Goethe’s principle of compensation to my reading of “*Young Werther*” I drew an interpretation that I think parallels some issues that have recently developed. Recently a growth of homosexual and transgender suicides have been reported. One of the more publicized suicides involved eighteen year old Rutgers student Tyler Clementi. According to Ed Pilkington of www.guardian.co.uk, Clementi’s suicide came soon after video of Clementi and a sexual encounter with another man was taken in his dorm room without his knowledge by roommate Dharun Ravi and a fellow hall mate Molly Wei. Ravi then streamed the video live, and that same night broadcast to the 150 followers of his Twitter feed details of his voyeuristic escapade.

There are many similarities in the paths to suicide by both Tyler Clementi and *Young Werther*. As referenced, Werther’s passion in the introduction of the novel was with the Arts. Like Werther, a recent

cbsnews.com story stated that Tyler Clementi was very passionate about the Arts as well, especially music. This same story also states that Clementi was a “very talented violin artist and was a terrific musician, and a very promising, hardworking young man”. Lotte plays a similar role in both these suicides as well; I believed Goethe left Lotte to be open to interpretation. As I reread *The Sorrows of Young Werther* I now believe Goethe uses Lotte as a symbol of perceived happiness. In Clementi’s case, his “Lotte” was the pressure to conform. Werther and Clementi both originally seemed to be constructive, happy, and energetic individuals. But both were led to emotional turmoil by “Lotte.” Werther believed that without Lotte his life would be meaningless and eventually leads to his suicide. Tyler Clementi’s “Lotte” was the belief that because he was a homosexual, he would never be able to conform to the majority, and in turn ever be happy. Unfortunately both story’s end the same way as well. On 22 September 2010 Tyler Clementi, like Werther, tragically took his own life. Similar to Werther’s final letter to Lotte, Clementi left also left one last note before his suicide. According to Emily Friedman of abcnews.com Clementi posted his last known words on his Facebook account "Jumping off the gw bridge sorry."

Along with the pressures of conformity students like Tyler Clementi and others presently face in today’s educational system, students are also confronted with an imbalanced teaching agenda. In the past educational institutions designed their teaching system in a more Aristotle themed, teacher-oriented model. This archetype granted the teacher or mentor with the freedom to create the lessons and projects needed to provide the student with a broad extent of knowledge that would help foster the individuals own talents and abilities. Today’s educational model, at least in America, is more controlled. Government programs such as *No Child Left Behind* and standardized testing have taken away the creativity and the amount of mentoring teachers now can offer their students. According to www.nochildleftbehind.com the NCLB was intended to improve reading and math test scores at schools across the United States. Because of this act students currently might know how to better “cram” for

and pass math and reading tests, but they might not be able to retain the overall knowledge needed to be effective individuals in the real world. Another question is how this new emphasis put on the subjects of math and reading alone will affect our students now and into the future. Many schools once offered a rich curriculums but the advent of the NCLB has forced schools to make drastic changes, "Narrowing the curriculum has clearly become a nationwide pattern," said Jack Jennings in a nytimes.com report, Jennings is the president of the Center on Education Policy, which is based in Washington. With more and more cuts being made by schools on classes and time spent in the study of history, music, science, and foreign languages it is difficult to forecast how these changes will influence modern day students and the knowledge they are able to carry with them outside of the classroom.

Education today also seems to be more career-oriented as well. Students are seemingly compelled to believe that the only lessons that are necessary are the courses that will help them land a degree and give them access to a top-paying career. Today's emphasis on education is very different from earlier mentoring goals which lead to the creation of well-rounded individuals. The goal of the NCLB, and of education today in general, seems to be insuring students contribute to the nations overall productivity and not in fostering individual enlightenment. As Astrida Tantilto states in her study of modern day education "What has eroded in today's educational system is the value of truly unique abilities, like creativity, and the imagination as well as the subjects of history, music, and the liberal arts as a whole."(126) Education today is based more in the here and right now. How will changes in the future affect students who only learn and gain knowledge by what is affecting them and the world at the present moment? Classes like history, social studies, and foreign languages have all seen cutbacks in today's school systems. Without having gained the knowledge necessary to understand world cultures and their histories how can students expect to acclimate, compete, and contribute successfully in today's ever growing global community; or as George Santayana once famously stated in his novel "The Life of Reason" "Those who cannot remember the past, are condemned to repeat it."

Another issue of contention lay with the use of evaluating standardized test scores to project school funding by the government and the NCLB program. Schools generally receive government aid by how well their students score on standardized test. The NCLB act put forth more specific standards for schools to follow if they wish to gain federal funding. Because fields like history, music, and the arts cannot be readily tested for, many schools are now closing these programs down as these courses are not essential to gain federal funding. Promptly these same schools are now adding more class time to be spent in math and reading courses which are the only two subjects where exams are required to meet NCLB guidelines and retain their federal funding. Basically education today comes down to having money, presently educational institutions are run more like a corporation than a school.

Another issue is how do schools in poverty stricken areas now compete for federal funding and establish good education standards within these types of communities without access to federal funding because of poor standardized test scores. Most impoverished school systems are now narrowing their curriculum to just the study of math and reading to help receive more federal funding and compete with schools in wealthier districts. How will the cycle be broken to allow these students to climb out of their impoverished cities if they cannot receive a broader and better quality of education? I contend that these students are being *Left Behind* and what is disturbing is how our education is seemingly headed down a path to becoming even more imbalanced. I contest that a similar theme in Goethe's *Wilhelm Meister's Apprenticeship* has relevance to understanding the risks involved with this road our educational system seems to be headed for.

In Goethe's 1795 novel *Wilhelm Meister's Apprenticeship* we yet again see a connection to the modern day issues of an unbalanced education. If *Young Werther* was a story of an individual's path to despair than *Wilhelm Meister* can be seen as an opposing story of an individual's path to redemption. *Wilhelm Meister's Apprenticeship and Journeyman Years* was Goethe's second major novel. The story follows the life and experiences of Wilhelm along with his good friend Werner. Wilhelm and Werner are

both sons to successful German merchants. Wilhelm, a lover of the arts, starts out as sort of a dreamer; caring not to be another businessman, he leaves home in an effort to fulfill his dream of becoming head of a new German national theater. Werner on the other hand is the consummate businessman, caring only for commerce and the hunt for profit. Once again we see Goethe's principle of compensation at work already. The two take off on totally different paths. Werner continues his profit hunting and eventually becomes a successful merchant just like his father. Wilhelm though takes an alternate path to arrive at the end of his journey as Goethe's ideal and balanced individual.

Shortly after abandoning his first love Mariana for her infidelity, Wilhelm joins a troupe of theater actors. With the help of his father's funds, without his father's knowledge of course, he and the theater group finance and perform Shakespeare's plays along with Hamlet where Wilhelm plays the leading role. It is after this where Wilhelm first encounters his future wife Natalie and through her brother is introduced to the secretive Tower Society. He discovers that the Tower Society has followed his life from the very beginning to the present. The Tower Society is a group led by its leader the Abbé, who disagrees with the aristocratic educational system of the time, and wishes to enlighten Europe and even the New World with their hybrid style of teacher and individual student modeled educational plans. The Abbé is described as one who is interested in everything, striving and taking pleasure in acknowledging and furthering everything. Wilhelm also discovers he has a son, Felix, who unknowingly is the offspring of his abandoned first love Mariana. It is during this time period when Wilhelm begins his metamorphosis from a carefree lover of the arts, to becoming a surgeon and a responsible and intellectually balanced parent.

With the help of the Abbé, Wilhelm realizes the error of his unbalanced education. One of the more elegant *Wilhelm Meister* quotes comes from volume three and a description of how much importance the Abbé places in educational balance. It is a quote which I believe to be relevant to the understanding of the risks of an imbalanced method of mentoring today's students. "All men make up

mankind and all forces together make up our world. These are often in conflict with each other, and while trying to destroy each other they are held together and reproduced by nature. From the faintest active urge of the animal to the most highly developed activity of the human mind, from the stammering delight of the child to the superlative expression of the bards and poets, from the first scuffle of boys to the vast undertakings by which whole countries are defended or conquered, from the most meager desire and the most fleeting attraction to the most violent passions and deeper involvements, from the clearest sense of physical presence to the dimmest intimations and hopes of spiritual promises, all this, and much else, lies in the human spirit, waiting to be developed, and not just in one of us, but in all of us. Every aptitude is uniquely significant and should be developed. One man cultivates the beautiful, and another what is useful, but only the combination of the two constitutes the true man. Usefulness cultivates itself, for it is cultivated by the general mass of people, and no one can strive without it; but true beauty must be expressly cultivated for few people embody it and many need it.”(205-206)

It was right that Wilhelm followed his dreams of becoming an actor, but his error like many others, was becoming too focused on one goal and not filling in the gaps intellectually through a more broad based education. As Georg Lukács stated in his short essay *Wilhelm Meisters Lehrjahre* “He may gain respect and, if need be, cultivate his mind; but his personality is lost in the process, no matter what he affects to be. He may not ask himself: what are you? But only: what do you have? What intelligence, what knowledge, what ability, or how much wealth? Let him cultivate only particular capacities in order to become useful, because it is assumed that harmony cannot or should not be in his character, because, in order to make himself useful in one way he must neglect everything else.”

Like Wilhelm, I myself am a student, and as a student I must also note that I have personally witnessed the effects of having an opportunity to grow more balanced intellectually in the process of writing this paper. With the chance to research and gain knowledge on a subject as varied as this, I have been able to implement some of the very same ideas and study habits in other areas of my life because

of the experience I have gained during the process of completing this paper. I now seem able to better comprehend different subjects and implement my own ideas more thoroughly because of my work in the fields of research and creative writing. Tantillo again raises a relevant question, "How does one measure the truly significant moments in education, the moments of transformation when a student studying literature says "this text makes me re-evaluate the direction I am going," or in study of the Arts that "this poem articulates a feeling I never really understood before," or in studying history a student might feel "this is something I believe to be relevant to my understanding of an issue today."(156-157) I myself am an undergraduate working towards my bachelor's degree in accounting. I may never need to produce another research paper in my life. But it is these very same moments in the process of completing this paper that I have also experienced and will carry with me for the rest of my life. This is why I fear "cut backs" in education today could be debilitating to the overall growth of our nations students. It is the experiences and knowledge gained in the seemingly neglected subjects of Literature, History, and the Arts that truly cultivate intellectual growth within a person. Yes students today might be better prepared to enter the business world than ever before, but are we really preparing our students to think critically and on a more creative level? Throughout *Wilhelm Meister* we continue to see its relevance to the understanding of this modern day issue and how Goethe believed in the importance of a balanced education as well.

Wilhelm's knowledge of having a son, Felix, changes him drastically. Like with many other individuals today, the birth of a child, leads to more responsibility and a striving in these parents to enrich the lives of their child through a better education, career and quality of life for their children. This notion is no different for Wilhelm. The Abbé and Natalie grant him access to an array of knowledge and instill him with the motivation needed to learn and grow on his own. Wilhelm eventually finds a new passion in the surgical field where he finishes the novel as a very content and very successful medical surgeon and head of his family.

It is during this later period where his childhood friend Werner again makes an appearance. Goethe is about to make a statement through the reappearance of Werner. If Wilhelm is now a Goethe's balanced and ideal intellectual, then Werner is now the opposite of that very same ideal. Werner remains a very successful merchant, but is still intellectually imbalanced. He continues to only care for the art of commerce and scoffs at any other knowledge than that which may help him advance his own profit and recognition. It is through the next description of the two friend's physical appearances that Goethe illustrates his principle of compensation and the belief that through internal balance and a striving for knowledge a person shall become enlightened.

The meeting between Wilhelm and Werner here describes the immense change in Wilhelm's life and the static nature of Werner's. Werner finds Wilhelm to be "taller, stronger, restrained, and more cultivated in manner and more pleasant in conversation and behavior". Wilhelm finds Werner to be almost the direct opposite. Goethe descriptively states "The impression that Werner made on Wilhelm was by no means favorable. The good fellow seemed to have regressed rather than advanced. He was much thinner, his pointed face seemed sharper, and his nose longer, he was bald, his voice was loud and strident and his flat chest, drooping shoulders and pallid cheeks showed quite clearly that this was a sickly creature with a mania for his work."(305-307) It is because of Wilhelm's wide area of knowledge and his many different experiences that he has become a more intellectually and emotionally balanced individual unlike his career only friend Werner. In this given example and throughout my discussion and reading of *Wilhelm Meister* I believe Goethe details the very issues and severe risks of an imbalanced education that most modern day students in America are now faced with overcoming. Without giving our students a chance to gain knowledge on a more creative and broad based level we might just be setting up our future generations for defeat.

Goethe questions the costs that might follow after advancements in knowledge and technology in his tragic play *Faust Parts I & II*. The play is Johann Wolfgang Von Goethe's most recognized work and

it still holds weight today. I believe that Goethe's epic poem *Faust*, specifically Part II, has a direct correlation that can help us better understand the issues that follow the gains we see in the advanced forms of technology we benefit from presently.

Goethe's tragic play details the adventures of Dr. Faust, a German intellectual who strives to learn everything that can be known. Similar to the Book of Job in the Bible, *Faust Part I* begins when Mephistopheles (the devil) makes a wager with God that he can "lead this learned man away from his righteous pursuits." (10) But unlike the God of the Bible, the priority is not that humans achieve moral perfection, but that man must strive continuously to learn, gain knowledge, and progress society. Faust is the embodiment of this priority. Resembling the plays own author Faust is a polymath, a man who strives to learn the keys to comprehend nature, advance society, and understand the meaning of life itself. Mephistopheles offers Faust a very tempting deal. He offers his servitude and an opportunity for Faust to fulfill his every wish, dreams, and desires. Faust agrees to Mephisto's contract to become his servant after death, essentially selling his soul to the devil, saying that "The next world? Well, that's no matter." (51) *Part I* then goes on to follow Faust's adventures as he passionately searches for love with the help of Mephistopheles. He finds it with Gretchen, a young woman who he seduces, impregnates, and eventually abandons at the closing of Part I. Although being the most widely read, enjoyed, and recognized Part of *Faust*, I believe Part II is actually more relevant to the understanding of similar issues we witness today.

Presently, society seems to be at the pinnacle of human knowledge and technology. Medical advancements are extending human life spans longer than ever before. The world is now truly connected; our modern society is both a global economy and a global community. The question is how these advancements in society will continue to improve our lives without diminishing them. One of the developments that faced Goethe in his very own lifetime is this similar acceleration of knowledge and technology. Goethe lived during the industrial revolution, a time parallel to our own when technology

was progressing at an accelerated rate. Although being excited about these advancements, Goethe also feared the effects these gains might have on human activity. Goethe's principle of compensation states that gains always have costs and consequences. Goethe's principle is very applicable to this modern day issue.

Today massive amounts of natural resources are used to support the energy required to supply society with the power needed every day in making peoples lives better and easier. Because of this global warming has become an ever growing fear. How will the carbon emissions from the burning of fossil fuels in power plants and automobiles continue to affect the makeup of our planets geophysics? How will issues like clear cutting and mining affect not only nature, but the cultures of people that are sometimes forced out to make room for these endeavors. Global threats like nuclear and chemical warfare are also a result of our advancing technology. How will a global economy affect the everyday lives of individuals around the world? Also, how will the internet and social media alter human thinking and communication? Should people be aware of the costs associated with these very same advancements? Yes, and I believe that Goethe's *Faust Part II* has pertinence to the discussion of this very issue.

Part II of *Faust* portrays the appeal of technology as well as drawing attention to its cost. The play begins with Faust seemingly dismissive of everything that occurred in Part I of the play; it is as if it never happened. Part II of *Faust* describes the adventures of a man that is ready to forget his love of human nature and move forward to embrace both technology and recognition. Faust is now in search of bettering human civilization and the fame and recognition that will assuredly follow such achievements. With the help of Mephisto, Faust begins Part II by negotiating the mining of gold underneath the nations land to enrich the imperial emperor and his kingdom. They also introduce the idea of paper currency to the emperor; he can use this paper currency instead of hard currency until he mines the gold needed to

backup these “paper assets”. The emperor also uses this paper currency to pay off the debt his kingdom has built up with other nations and their own citizens.

This enactment by the emperor eventually causes a crisis within his kingdom. It is a scene that is very similar to the burning of worthless bank notes due to the hyperinflation of currency in Goethe’s own Germany after World War I. This issue would eventually help lead to the rise of Hitler in Germany and the advent of World War II. It has a similar effect in the emperor’s kingdom as well. The emperor used this money to build a better society kingdom. He now has better technology and knowledge because of the use of this paper currency. But the emperor has essentially made a deal with the devil. The paper currency is now worthless. The mining of the gold proved to yield less than what was expected for the emperor. The currency he used to pay off his kingdoms debts are useless. The nations want their money back and are now have declared war with the emperor to get it.

Faust on the other hand has just completed his seduction of Helen, The same Helen of Greek mythology and is now off in search of securing land to build his own utopian society. Mephistos suggests that Faust should aid the kingdom in this war and ask for coastal lands from the emperor as a reward. Faust’s accepts this idea and the two use similar tactics seen in modern warfare to achieve victory. Mephisto uses magic to subdue the kingdoms enemy. Mephisto’s magic is described similarly to the same aerial, chemical, and nuclear armament that armies of today use. The enemies “quake” with fear and eventually retreat, leaving Faust and the emperor’s army victorious. The Emperor than delivers on his promise to Faust and allows him to use some of the coastal lands to develop his utopian society.

This period of Faust and his land reclamation project is depicted similar to the effects seen in British colonialism and the advancement of America into the west. To make use of the land Faust has to pay people to leave their homeland to make room for his utopian society. The advent of Philemon and Baucis complicate the matter, the two are an old couple who love their land and all the memories they have had their. Baucis and Philemon refuse Faust’s bribes and will not leave the land Faust so desires.

Faust is possessed by the desire to achieve his goal of creating a utopian society; in his mind he has to have this land at all costs, no matter who is hurt in the process. As Colonel Chivington once said in his forceful removal of the Cheyenne and Arapaho off their land during the Sand Creek massacre “Damn any man who sympathizes with Indians! ... I have come to kill Indians, and believe it is right and honorable to use any means under God's heaven to kill these Indians.” Faust similarly says to Mephisto “Cajole or bully them, try everything, inducements, more money, force! This reclamation must go on; the ditch I’ve now begun.”(222-223) Faust learns that Mephisto has carried out his orders with more violence than he intended. Philemon and Baucis have been killed, their house and land have been burned to the ground and Faust has the land that he has strive to attain. Faust now recognizes the evil that he has done, the abandonment of Gretchen in Part I and the recent killing of Baucis and Philemon to make way for the construction of his utopian world now weigh heavily on his mind. Faust is eventually ready to die and be buried. The play ends as Mephistopheles and a legion of devils wait to take his soul into custody. But suddenly a group of angels take Faust’s body into their arms and carry him up to heaven. It is readily perceived that he is redeemed by God because of his striving to better society. Although Faust has erred greatly he has continued to achieve the goals that the higher powers have set forth. Faust has continuously strived to learn, gain knowledge, and progress society. Therefore winning the bet and gaining entrance into heaven.

As discussed briefly this episode in Part II of *Faust* has a correlation to many of the effects that advancing technology has had on human history. The belief that western civilization had the right to remove the many different tribes that made up America is similar to the way Faust treats Baucis and Philemon towards the end of Part II. Faust is unwavering in his belief that his knowledge and use of technology/Mephistopheles will create a utopian society. Similar to America’s treatment of Native Americans in the 19th century Faust is ready to remove anyone who is unwilling to accept his demands. The Indian Removal Act was signed into law by President Andrew Jackson on May 26, 1830. It is similar

act in which Faust treats Baucis and Philemon. It was an act created to justify the acquisition of Indian lands by the ever expanding 19th century U.S government. Faust, like the U.S at the time of the Removal Act, also has the technology and power to easily remove these people from their land. To Faust, Baucis and Philemon are similar to the tribes in 19th century America. They are seen as savages obstructing the progression of the essential technology needed for human advancement into new lands. Baucis and Philemon's resistance to Faust's bribes and threats eventually leads to their extinction. This is a scene that resembles the many native tribes who fought to protect their way of life and culture against the technology and power of the western world. This same progression and power of technology and knowledge would eventually force these many tribes to integrate with the rest of western society and their culture. It is also a scene that is taking place in our populace everyday. Former nations like China, India, and Taiwan once used to be considered third-world primordial cultures. Today these nations have accepted technology and knowledge and have assimilated with the more "modern" western culture to become very successful in today's global community. But what made these cultures truly unique also seems to be left behind. Technology is turning our world into more of a community than a collective of individuals. The old traditions and activities of cultures are making way for the new traditions of global business and communication.

The Internet has changed the way people now communicate with one another. People are now able to communicate with anyone around the globe, something that was impossible before its creation. Because of this we are now witnessing a new global culture. The question that Goethe raises in his play *Faust* is how will the advent of this new kind of culture effect humanities future. Will it ultimately create Faust's Utopian Society? Or will it destroy the very things like human emotion, passion, and individuality that truly make us human.

In *Faust* Goethe believes that the rise of human technology and knowledge can ultimately be a good addition if we proceed with caution. The advent of technology must not come at the cost of what

makes us human. A culture's heritage and traditions should not just be cast aside for the mining of diamonds by rebels in Angola to finance their war effort or to make room for logging company's illegally working in the Amazonian rainforest. The growth of technology is not always beneficial; just watch MTV's Jersey Shore for a very good example. The essential human emotions of morality and tolerance must not be pushed aside for the advent of technology. Faust eventually reaches heaven because he understands the many mistakes he made in his expansion efforts. If we are to use our knowledge and technology to effectively progress humanity we can use Faust as a good example for how this can be done. The key again is human tolerance and understanding. In Goethe we find a man who is searching to understand human nature. His principle of compensation although very simple might have been the greatest thing we can take from him today. There is always a cause and an effect, and there is always a right and a wrong. We must strive to find the good. In essence that is what Goethe was striving to find during his lifetime while applying this principle throughout his work, especially the ones I've described in my research of this great man. Although sometimes difficult to do, we must like Goethe strive to find the good inside us and in all of our decisions to truly advance our human society for the better. If we do this we just might actually build the utopian world Faust and Goethe both so strived for after all.

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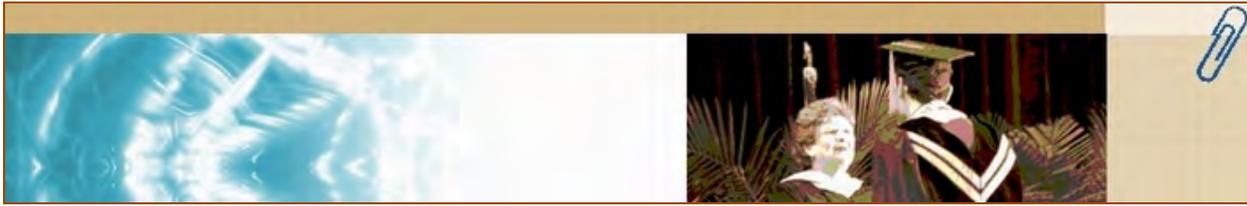
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2011 LAND Student Scholars Conference

“Military Field Engineering in the Ancient World”

Chad M. Schaffer

War has long afflicted the human race. It has destroyed cultures and countless lives, but war has also been the impetus for technological advancement. Long before recorded history and before the time of humans, our ancestors used knowledge to turn objects into weapons. Simple spears to hunt and fend off predators were eventually turned to fend off competitors in the form of kindred. Against an animal without the ability to use tools, the simplicity of a sharp stick is enough to ensure superiority, but against another rational minded tool maker, it just begins a race of technological defense and lethality.

Strategy itself is a technology. Recognition of favorable ground, or the training of troops in unified maneuvers are two heavy weapons in the arsenal of every great military leader throughout the ages. The next step, to train specialized troops to alter the battlefield on command, effectively making the battlefield itself a devastating weapon, is one of the great leaps in civilization, a leap that had a profound effect on the world we live in today.

With the fortification of Jericho, around 7000 BCE, the arms race came to a stand still. Thick stone city walls gave defenders an advantage of high ground that no amount of sword sharpening could overcome. City walls became very popular, very quickly. Unable to breach enemy cities, siege tactics came to the forefront. Sealing a settlement off from supplies for weeks, months or even years, was a costly and difficult proposition, especially in the ancient world. Military commanders needed a way to, literally, even the field.

Apart from the Hitties, who's texts make mention of military engineers, but have no description of their organization or works (Yadin), the Assyrian Empire was the first recorded culture to have a group of soldiers for engineering purposes. Organized during the reign of King Ashurnasirpal II around 850 BCE, they were called the Kallāpu, and also served as long distance messengers (Dalley). To solve the problem of city fortification they perfected the process of undermining, digging clandestine tunnels supported by wooden beams from the siege line to directly under an area of wall. Once a cavern under the wall was of sufficient size, the beams were set ablaze, compromising the the support of the ground beneath the wall, thereby causing a hole in the city's defenses for the army to attack. If the ground was not suitable for mining, the Kallāpu were also skilled ramp builders. During the siege of Lachish, the second most fortified city in Judea, by King Sennacherib in 701 BCE, Assyrian engineers built a ramp up to the level of the cities walls using some 25,000 tons of stone. While an impressive project for the era, the ramp's placement shows the true tactical prowess of it's construction. The ramp comes to meet the wall at a corner, thereby shortening the line of the defenders. Not overwhelmed by work on the ramp alone, the Kallāpu also managed to design and build a fortified camp for their King, overlooking the battlefield, but well out of harm's way.

Assyrian military engineers also played key roles in transportation. The first organization to build roads was the Kallāpu, inscriptions of one King herald their accomplishments saying they "Hewed a way with bronze pickaxes and made possible a passage for my chariot and troops"(Cole). These roads gave the Assyrian army unprecedented mobility allowing them to deploy over a vast area, effectively granting a force of only 175,000 control of 375,000 square miles (Gabriel and Metz). When roads washed out, or the army needed to quickly pass a swampy area, the Kallāpu would lay down sections of interlocking planks to make a portable road surface (Dalley).

Knowledge of engineering can also be turned to a directly destructive end. It was an Assyrian policy to punish populations that resisted them by systematic destruction of their irrigation systems. Sargon II, when invading Armenia, had his engineers dam the main outlet canal of an irrigation system

fine enough that he himself commented on it's quality, flooding the arable land so as to make it unworkable (Drower). Sennacherib took this punishment a step further upon the taking Babylon. His son having been killed in the war with them, he ordered the destruction of every temple and palace within the city, and the debris to be thrown into the Babylonian canal, then had canals of his own dug. "I flooded the site with water and the structure of it's very foundations I destroyed," Wrote the Assyrian King about his orders (Drower).

A century after the decline of Assyria, The Achaemenid Empire began it's climb to eminence. It seems, from descriptions of classical authors, that the Persians organized their military in much the same way (Dalley). Even without descriptions of logistics, the engineering corp of one Persian King, Xerxes the Great, distinguished themselves by successfully creating a temporary pontoon bridge across the Hellespont on their second attempt, their first being destroyed by a storm. The Greek historian Herodotus describes the bridge they created, and the methods they learned to incorporate after their failure. "They joined together triremes and penteconters(fifty-oared ships), 360 to support the bridge on the side of the Euxine Sea, and 314 to sustain the other; and these they placed at right angles to the sea, and in the direction of the current of the Hellespont, relieving by these means the tension of the shore cables. Having joined the vessels, they moored them with anchors of unusual size, that the vessels of the bridge towards the Euxine might resist the winds which blow from within the straits, and that those of the more western bridge facing the Egean might withstand the winds which set in from the south and from the south-east." The length of the strait the bridge crossed was seven furlongs (Platt), or 4620 feet, to estimate the size of these two bridges as even makes each 2310 feet. The longest modern pontoon bridge ever constructed was only 2034. This accomplishment alone grants Persian military engineers a place of regard for competence.

Competent engineers are not enough, a leader must possess the insight to use them appropriately. Nothing could be further from the truth in the case of the Persian military. During the first invasion of Greece in 492, two sieges led by Datis and Artaphernes, at Lindos and Eretria, were both

hallmarked by multiple doomed attacks against the fortifications, and no engineering at all. As a result the siege of Lindos failed, and Eretria was only won due to Greek traitors opening the gates for them. By contrast, the crossing at Hellespont could have been accomplished much faster and less expensively by flotilla. Tools are useless without the knowledge, or will, to use them. The accomplishments of Alexander the Great are an example of what can be done with proper use of field engineering.

The Macedonian Army, as organized by Phillip II, was unprecedented in many ways. The use of sarissa, fifteen to eighteen foot long spears of two pieces of wood connected with by an iron sleeve (Markle) , in a phalanx made for a force as intimidating as it was invincible. Phillip used his tactical prowess and unstoppable force to lift the subdued Macedon he inherited to the principal State of Greece, with the addition of properly used engineers, Alexander conquered most of the known world.

Alexander's ascension to the thrown was a turbulent one, and upon hearing news of the political strife several states under Macedonian rule revolted. To keep his inheritance he took a force of 3000 calvary to the nearest of the upstart states, Thessaly. The Thessalonians had prepared a defensive line in the pass between Mount Olympus and Mount Ossa, a place his cavalry would lose their advantage. Alexander sent a messenger to the Thessalonians demanding surrender, and when they did not reply he had his engineers begin to cut steps into the mountain to avoid the pass and flank the rebel force. Upon seeing the construction, the Thessalonians surrendered and welcomed Alexander as their Hegemon as his father had been (Conroy). His next obstacle was the River Danube. A force of rebels had crossed days before, taking every boat with them in an attempt to stall the Macedonian initiative, but instead of finding another route, Alexander had makeshift boats constructed of leather tents stuffed with straw (Conroy). His attack the next morning caught his enemy entirely by surprise.

In the army Alexander took to invade Persia in 334, he had two distinct arms of engineers. One, led by Diades, comprised of artillery and siege-engines and another of architects led by Astrobulus (Burn). Diades engineers were called on early in the campaign at Miletus, where, using battering rams constructed on site, they destroyed sections of the four meter thick (Crane) stone walls surrounding the

city. Then at the fierce siege of Myndus using catapults, destroyed two towers and the section of wall that connected them, and another tower by undermining. The engineers were so successful at Myndus, that even though the Persian defenders won sortie after sortie, they eventually found themselves in dire straits. As Dodge states “[The Persians] foresaw the a speedy prospect of surrender unless they could fully destroy the besiegers' works, and resolved upon another general and desperate sortie.” Next at Halicarnassus, a defensive ditch was filled so as to allow the approach of a gigantic wheeled siege towers, a favored engine of Diades (Burn). Later, at Gaza, where the citizens believed the position of the city on a tall hill would make attacks by such towers impossible, Alexanders engineers built a long ramp to lessen the grade of the hill and used them anyway. Years later, at Massaga, India, on flat ground with over five years of experience, the engineers had engines constructed and in place the second day of siege. The third day saw towers, both static for archery support, and mobile, one of which managed close enough to drop a ramp on the city walls; the forth day saw more mobile towers. On the fifth day, the Indian forces, their commander wounded and seeing no hope against such a force as Alexanders, surrendered.

Speed wasn't the only innovation Alexanders engineers brought to the field. Philip's engineering corps before them had begun experimenting with the Sicilian style catapults, introduced at the Siege of Motya by Dionysius in 398 BCE; which were effectively large crossbows that hurled bolts at set angles for distance. What they came up with was an engine that harnessed the power of the torsion spring. Diades, having studied under Philip's engineers, knew of the torsion spring and created for his patron a engine that threw stones at trajectory. While the Sicilian style catapult, in the hands of many Persian cities, could fire a metal tipped bolt two hundred yards, the Macedonian catapult could launch a heavy stone, some four hundred yards (Fox). Alexander took the use of these new weapons further employing their use as artillery in non-siege combat, engineers adapting the ammunition from heavy stones used to break fortifications, to bags of smaller stones that would fragment in mid air. They even

experimented with the use of venomous snakes and hornet nests as anti-personal, and ultimately anti-moral, payloads (Conroy).

The greatest accomplishment of Diades and Alexanders engineers was the siege of the island city of Tyre off the coast of what is now Lebanon. Alexander was greeted by Tyrian Ambassadors as he approached the city and was offered submission, provided he would not enter the new city itself. Tyre was a place split in half, Old Tyre on the mainland, and New Tyre situated on a fortified island half a mile off the coast. Alexander wished to make an offering to Melkarth, a god of the Tyrians who is often identified with Hercules, who Alexander thought himself an ancestor, at the temple on New Tyre.

The Tyrian pointed out that there was a perfectly good temple to Melkarth on the mainland in Old Tyre the Alexander was welcome to use. This was not all it seemed though, at the heart of the discussion was the question of true fealty, by not allowing Alexander free access to the island, the Tyrians attempting to remain neutral in the the Macedonian conflict with Persia. Alexander, recognizing the maneuver, and the threat, told his officers this: "I See that an expedition to Egypt will not be safe for us, so long as the Persians retain the sovereignty of the sea... leaving in our rear the city of Tyre itself in doubtful allegiance... I am apprehensive lest while we advance with our forces toward Babylon and in pursuit of Darius, the Persians should again conquer the maritime districts, and transfer the war into Greece with a larger army" (Yenne).

Laying siege to Tyre was no easy task. Two hundred years earlier it had withstood thirteen years of siege by Nebuchadnezzar of Neo-Babylonia, and while it had been taken before, in 370 by a king of Cyprus, a strong navy seemed necessary to do it. Alexander had no navy to speak of, but his back was to a wall. He came up with a bold plan, if he could not attack the city by boat, he would bring land to the city and attack from there. Alexander ordered the construction of a mole, a narrow causeway, from the mainland to the island. His engineers took up the task admirably dismantled and used the stone for fill and took advantage of a "unique geomorphological features" (Marriner, Morhange, Meulé) to build a nearly 3000 foot land bridge. As the Macedonians mole grew into the sea the Tyrians watched in humor

at first, but as the months progressed they became fearful of it's progress. When the defenders began launching arrows from tower mounted catapults at the workers on the mole, the engineers hung leather hides to protect them, and then built towers of their own to rain arrows on the very walls of the city.

Recognizing the danger, the Tyrians constructed and launched a fire ship at the siege equipment on the mole, breeding enough confusion to launch a formal ship based attack on the defenders destroying every catapult and tower within range of the island. Alexander ordered the towers rebuilt and managed to find a fleet of ships, finally taking the city though a naval attack. The mole itself was unharmed by the Tyrian sortie, nor by time itself, today the island of Tyre is connected to the mainland by an isthmus of silt that build up around the mole Alexander's engineers constructed.

The height of ancient military field engineering easily goes to the Roman Empire. The Romans did nothing new in engineering, they simply did everything, well and often. Overseeing all siege activities, road construction, artillery, and fortifications, Roman military engineers were paragons of their craft. Every night a Roman Legion would construct a fortified camp known as a castra. With the help of regular infantry, all of whom were issued a shovel as part of their standard equipment, fortifications, for a castra or purely for defense, could be completed, while under attack, in a matter of hours using only materials available on site. In "De Re Militari Book", a military manual written by the Roman author Vegetius detailed instructions are given on the construction of camps while in the presence of an enemy force and speaks highly of the skill saying "there being no part of discipline so necessary and useful as this".

This level of detail and efficiency was applied to all matter of infrastructure. The famous system of metaled roadworks that coined the phrase "all roads lead to Rome" was designed, piece mail, by military engineers as the army moved based on well known specifications that saw little variance throughout the empire (Xeidakis, Varagouli). Like the Assyrian system before it, Rome's roads granted unparalleled mobility on a scale the Assyrians never saw. At it's height, Rome sprawled over 2,200,000 square miles, which it held sway over with a mere 180,000 regular troops (Thompson). While the sheer

size of the empire at its height led to its decline and destruction, the Roman military managed very well for many years controlling an unimaginable area with so few troops and no modern vehicles.

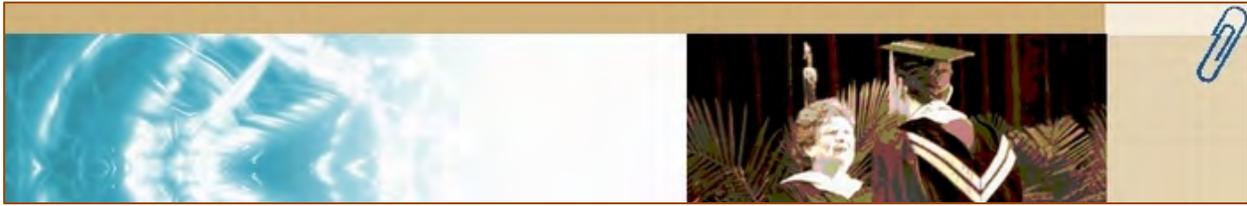
Bridges were another point of Roman engineering pride. Like mundane roads, bridges were constructed by military engineers as the army moved into an area. Various designs were incorporated, from paved fords at shallow streams, to full wood and masonry bridges. The truest testament to the skill of the men who built these lies in the speed with which they were constructed. In one case, Julius Caesar had led his army to run out of Gaul, a Roman province, a group of Germanic cavalry that had been searching to plunder the area. Rather than face the Roman Legion, the Germans fled across the Rhine and folded into another Germanic tribe, the Sugambri. Caesar sent messengers and demanded the raiders be handed over to him to face Roman justice. The reply, that "The Rhine was the limit of Roman power" (Caesar), inspired Caesar to show them the nature of that power. He ordered a wooden bridge be built to span the Rhine, a distance somewhere between 140 and 400 meters. His engineers constructed it in just ten days. So confident in the ability of his men as to know it reproducible at whim, after scouting the German side for a mere eighteen days, Caesar crossed back to Gaul and had the bridge cut down behind him. Such was the true power of Rome.

The engineering proficiency of any age can be measured first and foremost by its military field engineers. Academic study, while important and necessary, becomes only novelty in a field of engineering if what is discovered by the academic cannot be applied. The circumstances that war imposes on those who undertake it, stress, fear and lack of resources, creates an excellent stage by which the true understanding of the technical mind can be measured. Furthermore, leaders who cultivate engineering in war, must be comfortable enough with the concepts it presents to take chances, and hold in high enough esteem those engineers who set forth to complete the projects they propose at the risk of the warriors under their command. To understand the methods and technology put to use by these practical wizards is to see, through grim glasses, the evolution of human understanding.

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2011 LAND Student Scholars Conference

"Small Town/Farm Boy Character Analysis"

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The classic character type of the “farm/small town boy” has a nearly universal appeal to audiences. This is a character that grows up on a farm or in a small, typically rustic, town that ends up leaving home and having adventures. Often the character wants to leave home and venture into the outside world, but is reticent when the opportunity actually presents itself. Within the hero’s journey, a very universal structure for storytelling, the farm/small town boy is often used because it allows the audience to experience the new world being introduced alongside the character. As seen in films like *Lord of the Rings: The Fellowship of the Ring (2001)*, *Lord of the Rings: The Return of the King (2003)*, *Hercules (1997)*, *American Graffiti (1973)*, *The Passion of the Christ (2004)*, *The Nativity Story (2006)*, *Star Wars: Episode IV - A New Hope (1977)*, *Star Wars: Episode I - The Phantom Menace (1999)*, *Star Wars: Episode VI - Return of the Jedi (1983)*, *Star Wars: Episode II – Attack of the Clones (2002)*, the farm/small town boy is usually called from his or her isolated home in order to defeat an evil force or to accomplish a task. Because of the culturally infused characteristics of the farm/small town boy, as seen in storytelling from movies to the literature many films are derived from, this character type is a hero which identifies with audiences of all generations.

For thousands of years, agriculture was the central focus of civilization. Because of this, many stories set in pre-industrialization times have farmers as central characters. The story of Hercules, one of the greatest heroes in Greek mythology, was adapted into an animated movie by Disney called *Hercules (1997)*. He was the child of the Greek gods Zeus and Hera, but was poisoned by Hades to make him

human. Raised by a farmer and his wife for eighteen years, Hercules is outcast by the townsfolk because of his inhuman strength and his clumsiness. After questioning where he truly belongs, Hercules learns his true parentage and learns that he can rejoin the gods in Olympus by becoming a true hero. After training with the satyr Philoctetes, Hercules saves the world from monsters and falls in love with a human named Meg. It's the strong values he received from his early, simple life as a farmer that make Hercules question the secular superstardom thrust upon him by the public for his monster slaying feats. By risking his own life to save Meg, he becomes divine again and can live amongst the gods; yet he chooses to remain mortal because he loves Meg and has found where he truly belongs. Disney chose to adapt the Hercules story in this way to make Hercules go on a journey for understanding that appeals to young people, who often feel misunderstood too. *The Nativity Story (2006)* and *The Passion of the Christ (2004)* contain another story based in ancient times that appeals to a wide audience.

According to Howstuffworks.com, the Bible is by far the bestselling book of all time. Thusly, *The Nativity Story (2006)* and *The Passion of the Christ (2004)* both had a huge audience built in when they came out. Jesus was the son of God, born of the Virgin Mary. He was raised in the little town of Nazareth by Mary and his foster father Joseph, a descendent from the house of King David and a carpenter. *The Nativity Story (2006)* covers the events prior to and immediately after Jesus' birth, including the search by King Herod for the child that was prophesized to become the king of kings. After Jesus is born in a poor manger in Bethlehem, he's visited by three wise men and given gifts. He fulfills his role as a small town/farm boy character by journeying away from Nazareth to fulfill his destiny and preach the word of God; alternatively, his journey could be interpreted as leaving his home in heaven to come down to earth and then returning to heaven after he dies in order to save humanity from its sins. *The Passion of the Christ (2004)* covers the final hours of his life in which Jesus is betrayed by his friend and tortured until he gets nailed to a cross and dies. Three days after his death, Jesus rises from the dead in order to prove that he is the son of God and to establish the religion of Christianity. Although he was born into

poverty, Jesus was raised with a strong background in faith and morals to become a holy and righteous man.

The farm/small town boy is most often seen in fantasy storytelling, which all began with the novel *The Lord of the Rings* by J.R.R. Tolkien. In *Lord of the Rings: The Fellowship of the Ring (2001)*, director Peter Jackson adapts Tolkien's first book into a blockbuster movie. Frodo Baggins lives in the peaceful farming land called the Shire with Bilbo Baggins as his guardian. Bilbo tells Frodo about his adventures with dwarves, elves, and dragons in the outside world. Although Frodo is happy and content living in the Shire, he dreams of having his own adventures. This makes the other hobbits, little people, brand Frodo as a misfit because most hobbits don't care what goes on outside the Shire. Unfortunately, Frodo's peaceful life is ruined when the old wizard Gandalf tells him that the ring Bilbo passed on to Frodo is the One Ring of the Dark Lord Sauron. Gandalf refuses to take the Ring because of its corrupting influence, so Frodo must take it away in order to protect the Shire. Sam, Frodo's gardener and friend, accompanies him along with more young hobbits named Merry and Pippin. After journeying far and nearly dying, Frodo arrives at the home of the elves, Rivendell. Here Frodo is healed and believes that his task of carrying the Ring is over. He didn't expect his adventures to be so dangerous and is ready to go home. However, when heroes from across the world meet in Rivendell to decide the Ring's fate, nobody can agree on who shall take the Ring into Mordor, Sauron's land, and destroy it. By volunteering to take the Ring, Frodo relinquishes his hopes of going home in order to fulfill the role nobody else can. It's in the final part of the trilogy, *Lord of the Rings: The Return of the King (2003)*, that Frodo's journey to destroy the Ring to return home reaches its climactic conclusion.

In *Lord of the Rings: The Return of the King (2003)*, Frodo and Sam are journeying through Mordor to Mount Doom while Aragorn's army at the Black Gates distracts Sauron's attention. When Sam asks him about home, Frodo says that he can barely remember home and has lost all hope in

returning. After the Ring is destroyed, Frodo and Sam are resigned to be killed by lava when the Great Eagles save them. They go back to the Shire, but Frodo has been too physically and psychologically scarred by the journey to find peace in the Shire. He leaves Middle-earth for the Undying Lands, leaving Sam, now married and mayor of the Shire, with his account of the journey. Throughout the series, the theme of returning home is seen in the journey of the hobbits and in the departure of the Elves to the Undying Lands because they believe that Middle-earth has irrevocably changed. It's because Frodo was raised in the isolation and simplicity of the Shire that gives him the pure heart necessary to carry the Ring. Audiences love to see a character like Frodo, a simple right-minded individual, being thrust into a huge world where great powers conflict and watching him succeed against those powers despite the odds. *Star Wars: Episode IV - A New Hope (1977)* communicates a similar message through its science fiction setting and its fantasy storyline.

George Lucas crafted a storytelling masterpiece in *Star Wars: Episode IV - A New Hope (1977)* by using familiar archetypes from the fantasy genre, such as knights, princesses, and wizards, in conjunction with an epic science fiction setting and amazing special effects. Luke Skywalker is one of the most famous examples of the small town/farm boy character in all of film. He grows up on the backwater planet of Tatooine with his aunt and uncle as a moisture farmer. Despite his desire to escape Tatooine and enlist in the Imperial Academy to become a pilot, Luke is forced to stay and help on the farm. After discovering a strange message inside the droid R2-D2 for Obi-Wan Kenobi, who Luke believes is the local hermit old Ben Kenobi, he ends up meeting the old man along with R2's counterpart C-3PO. Kenobi reveals that Luke's father was a great Jedi Knight who was killed by Obi-Wan's evil former pupil. Luke rejects Kenobi's offer to learn the ways of the Force and to accompany him to Alderaan, the home planet of the princess who left the message in R2, because he feels unprepared to leave home and overwhelmed. However, when he goes home to find his aunt and uncle dead, Luke realizes he has no future on Tatooine and goes off with Obi-Wan, the droids, a mercenary named Han Solo, and his

partner Chewbacca. Over the course of the movie and its sequel, Luke saves Princess Leia, destroys the Death Star, trains as a Jedi, and learns that Darth Vader is his father. In an era when movies were stagnating and releasing the same kind of film over and over, *Star Wars: Episode IV - A New Hope (1977)* brought a sense of adventure that captivated young audiences, from Luke's humble beginnings to his moment of glory after destroying the Death Star.

In *Star Wars: Episode VI - Return of the Jedi (1983)*, Luke returns to Tatooine in order to save his friends from Jabba the Hutt. Once he fulfills one part of the hero's journey by returning home, Luke goes on to defeat the Emperor, redeem his father, and save the galaxy. *Star Wars: Episode I - The Phantom Menace (1999)* deals with the story of Anakin Skywalker as a young slave living on Tatooine. Anakin dreams of traveling across the universe in a starship and returning to free all the slaves on Tatooine. By winning the Pod Race, he wins his freedom and is offered the opportunity to go become a Jedi. Although he hates leaving his mom behind, Anakin goes to pursue his dream. He returns to Tatooine in *Star Wars: Episode II - Attack of the Clones (2002)* to find that his mother's been kidnapped by Tusken Raiders. When he finds his mother, she says a few words before dying in his arms. This event and his background as a slave make Anakin extremely protective of his friends and eventually lead him to become Darth Vader. George Lucas created another movie focused on small town/farm boy characters, called *American Graffiti (1973)*.

Set in Modesto, California during the last day of summer in 1962, *American Graffiti (1973)* tells the story of two young men who are scheduled to leave for college the next day. The other characters staying in town have their own adventures in the film, but Steve Bolander and Curt Henderson are the only main characters who truly fit the role of the small town/farm boy. When the two boys meet up with their friends at Burger City, Steve is excited for college while Curt is having second thoughts about leaving. After Steve tells his girlfriend Laurie that they should both see other people while he's away, she

gets upset. This ruins their relationship and Laurie chooses to cruise with a nasty racer called Bob Falga after seeing Steve talking to other girls. Meanwhile, Steve is considering staying home rather than going to college because of his fallout with Laurie. In a climactic race between the out of town hot shot Falga and local champ John Milner and, Falga loses control and crashes with Laurie still in the car. Steve arrives to save Laurie and ends up reconciling with her, telling Laurie that he won't leave her. Parallel to this storyline is Curt's journey, which begins with him being told by his friends and teachers to go to college. While cruising with Steve, he sees a beautiful blonde drive by and immediately falls in love with her. After the sock hop dance ends at school, he meets up with his ex-girlfriend Wendy and rides in her friend's car with her. Wendy wants him to stay in town and they start making out in the backseat, causing Wendy's friend Bobbie to kick him out of her car. He gets bullied by a gang called "the Pharaohs" into being a distraction while they steal money from pinball machines. In their car the gang members talk about how they wanted to see the world, like the radio host Wolfman Jack had. When Curt learns that Steve is unsure about going to college, he tries to calm him down and convince him to go. A rumor states that Wolfman Jack is broadcasting from an old radio station on the outskirts of town and Curt goes there to get a message to the blonde via radio. The man in the building denies being Wolfman, but tells Curt to go out and experience life. As Curt walks away, he can see the man broadcasting as Wolfman Jack, who ends up giving Curt's dedication to the beautiful blonde on the radio. She calls him at Burger City and wants to hang out later that night, but Curt says he'll be gone by then. At the end of the film, Curt gets on a plane to go east while Steve stays home. Curt sees the blonde girl's car driving along as his plane takes off. This whole movie is based around the idea of leaving home to go into the wide world along with the pros and cons of the decision. Steve and Curt have a role reversal, as far as their decisions for college are concerned. By setting *American Graffiti* (1973) in a small town with young characters, beautiful cars, and a story about leaving home, Lucas captures a young

audience struggling with the same challenges along with an older audience who can remember their days of youth too.

As seen in these films, the small town/farm boy character is often used in conjunction with the hero's journey structure. Joseph Campbell summarized the hero's journey in his book *The Hero with a Thousand Faces* as when "a hero ventures forth from the world of common day into a region of supernatural wonder: fabulous forces are there encountered and a decisive victory is won: the hero comes back from this mysterious adventure with the power to bestow boons on his fellow man". The small town/farm boy character is perfect for this journey because the character desires to leave home and is often forced to leave by events beyond the person's control. For example, when given the opportunity he's been dreaming about, to leave home and have adventures, Luke Skywalker turns it down just like Frodo did. In the end, though, they both realize that they must leave in order to stop the evil that's menacing them and their home. Cultures throughout the world and throughout time have always loved hearing stories about the small town/farm boy character because everybody can sympathize with the struggles of a leaving home and venturing out into the unknown. Even during the golden age of the Greeks and the time of Christ, people were touched by stories of characters from humble backgrounds doing great deeds and journeying into the world in order to accomplish a task. Humans have always used escapism through stories in order to temporarily escape the drudgery of everyday life and vicariously live through a believable character goes on an extraordinary journey. Series like *Star Wars* and *The Lord of the Rings* tell epic stories that are based around a universally accepted character who journeys away from the security of home into a dangerous outside world where they overcome trials and have amazing adventures. Usually, the character returns home at some point in order to show how the character and how home has evolved during the journey. *American Graffiti* (1973) puts this character in a contemporary setting rather than a fantastical one, showing how the small town/farm boy character can be used in any genre of storytelling. Overall, the small town/farm

boy character exemplifies the universal appeal of the hero's journey because the character's simple background and isolation from the larger world gives a perfect set up for an adventure into the unknown.

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