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Skunk River Review

Student Work

Fall 2004

Skunk River Review Fall 2004, vol 16

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A black and white photograph of a rocky riverbank. The foreground is filled with large, dark rocks and numerous pieces of driftwood, some of which are partially submerged in the water. The background shows more rocks and the dense network of tree roots extending into the water. The overall scene is rugged and natural.

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Volume 16

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The Skunk River Review

Cover photo is a double image of the Skunk River from two different locations. One image is of the Lynnville Mill in Lynnville, Iowa, and the other is of a gnarled, old tree root on the bank of the North Skunk River south of Delta, Iowa.

The Skunk River Review

Volume 16

Fall 2004

A Celebration of Student Writing

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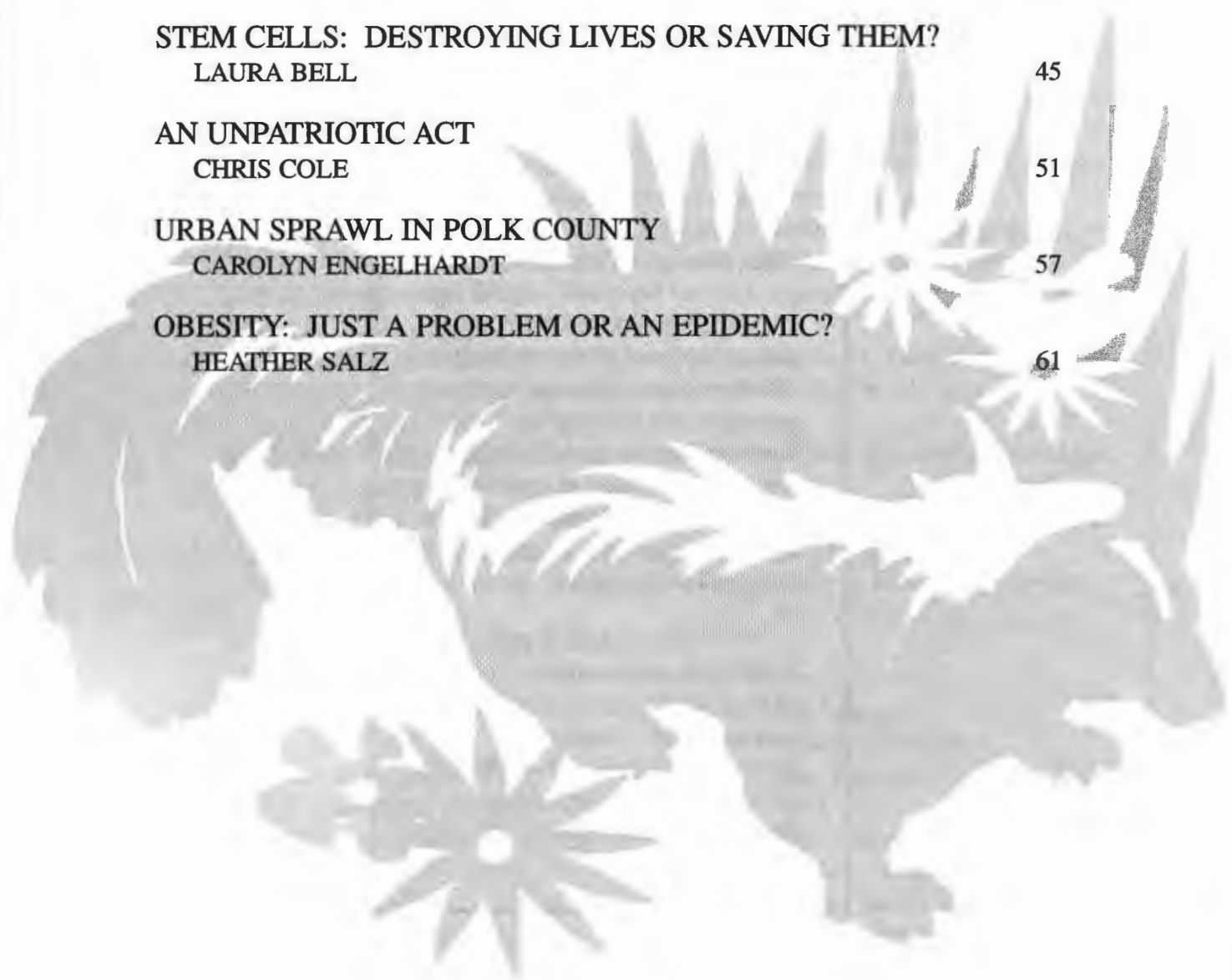
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Welcome to the 2004-2005 edition of
The Skunk River Review!

We again received many excellent examples of student writing, which made the selection process enjoyable, yet challenging. Students from various DMACC campuses submitted essays from the College Preparatory Writing I and II, Composition I, and Composition II classes.

We hope you gain greater insight and understanding from the writings in this publication. Analyze them...discuss them...react to them. But, most of all, enjoy reading and celebrating this year's student essays.

We would like to recognize the following people who contributed to this student publication:

- To all of the **DMACC students from College Preparatory Writing I and II, Composition I, and Composition II** for their outstanding essay submissions.
- To all of the **writing instructors at all DMACC campuses** for their support and use of *The Skunk River Review* throughout the year.
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- To **Curt Stahr** for providing an award winning cover photograph taken by one of the students in his photography class.
- To **Jim Stick, Dean of Sciences and Humanities**, for his leadership and contributions to help make this year's publication an overall success.
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Mary Torgoman
Sarah Waddle
Tara Wendel
Sharon Witty
Will Zhang



College Preparatory Writing I & II

An Uncivil War

by Elizabeth Dan-Dukor

An essay describing a personal experience.

Imagine having lunch with your family or your friends at noon. The sky, it gleams so brightly. The sun pierces every pore of your body. You can feel the sweat dripping from your brow to your cheek and continuing down the rest of your body; your clothes are sticking to your body. It's 98 unbearable degrees in the shade of the house. Everyone is getting frustrated with each other; the tension in the house is growing stronger. You're about to scream at each other. Then suddenly, there is the piercing sound of a gun: first one shot, then two, three. It seems as if the clock is ticking, counting every second, and marking the gunfire's increasing pace. It is getting closer and louder to your house. You stand there frozen, not knowing what direction to go. You are confused, not knowing what to do or say. That was the way it was for me in 1995. This was the war in Nigeria and the circumstances that surrounded it. The cause of the war, living in the bush, the loss of babies, the deaths of thousands of people, the hanging of our leader, Ken Saro Wiwa, and eight others was unspeakable. Experiencing the war was the worst time of my life.

It all began in 1995, when I was eleven years old. I was living with Lektor, one of my relatives in Bera, a small village in Nigeria Tripe Ogoni. I was the fifth of eight children in my family. Because my parents couldn't afford taking care of all of us, I was the one who always had to leave the house and live with other people to baby-sit their children. I didn't like leaving my family to live with people I didn't even know. The people I had to live with might be my mom's friend, my dad's friend, or just a family relative. Living with other people helped to provide clothes and food for me. Lektor had one child and was pregnant with another one. She wanted someone to help baby-sit since her husband was never around.

I had moved in with Lektor that summer. A couple of months later, she had her baby after a complicated labor. She was supposed to have twins, but one of them died. I don't remember what the cause was, but the doctor said that Lektor would have died, too, if she had waited for one more day before coming to the hospital. She went home a few days after the loss of her baby boy.

It was one of those hot days in Bera. I just finished hand washing the baby cloth

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diapers and had cooked lunch. We were all eating when we heard the sound of gunfire. At first, we thought it was nothing, maybe someone cutting firewood, but then we heard it again and again. Lekor asked me to look after the children so that she could go and find out what was happening. I overheard her asking her husband's brother what was happening. He assured her that everything was okay. She came back in and told me that everything was okay. But it wasn't. The piercing sound of gunfire was increasing and getting closer.

We waited for a few minutes, hoping that the sound would stop, but it didn't. Then Lekor told me to pack. I packed the children's clothes and the baby food in bags. She tied them on her bicycle. She told me to carry the babies. I carried the five-day-old baby in one arm and held the three-year-old little boy with the other hand. We were going into the bush. On our way, I saw a crowd of people with little children crying looking for their mothers, mothers asking me if I had seen their children, and people crying for the loss of the loved ones who had already been shot. I was scared! There I was with two little kids in my hands and their mom moving very slowly, not yet recovered from her operation and delivery of the baby, and people were running looking for a place to hide. Have you ever had something so very dangerous coming towards you, and you can see other people running away from the danger, and you are there walking very slowly waiting for the danger to come get you? That was all that I could do in the sea of people, scurrying for a place to hide, waiting for Lekor to catch up with the children and me.

I later found out that the government sent its army to seize the country's oil supply by force if we refused to hand it over. In my region of Borri, farming was a large part of our lives. We had oil on our land that

helped our plants to grow. So when the government wanted to draw the oil from the Ogoni people's land, our leader, Ken Saro Wiwa, refused. He didn't want them to take it without giving us something in return. They arrested him and other people who spoke up against the government. A few weeks later, I heard that he was hung along with eight other people that were under him. However, the war didn't stop. The armies were still in my village shooting, beating, killing people, and burning houses. To them, it was like a game. They knew that they were stronger than we were; they took advantage of that. We left our homes to hide in the forest. Living in the bush was terrible. We had to sleep on the grass with snakes, crocodiles, and other animals. My friend's parents actually saw a lion. You would think that because we lived in Africa, we would see lions all the time, but the whole eleven years that I was there, I never saw one. God was with us, and he protected us from those dangerous animals and dangerous humans.

We used palm leaves to build shelters, which helped during sunny days. When it rained, it was like standing out in the rain without anything over our heads. It was hard with the little baby. Since her mom wasn't in good condition, I had to protect her from getting cold. I would put her under my cloth, covering her, as much as I could with body warmth to keep her from being sick. Getting food was also difficult. Lekor's father in-law and I rode our bikes to another shelter place to exchange clothes for food. Many people died, not just from the shooting, but also from lack of food. The army was on our property; they went into the nice houses to eat and sleep. They killed people's goats. When they were ready to leave, they broke furniture and burned the house to ashes. So by the time the war slowed down, many people were homeless.

Experiencing the war was the worst time of the Ogoni people's lives. The war destroyed thousands of people's lives, and it all happened because of the selfishness of the Nigerian government, army, and officials who took whatever they wanted no matter who was hurt. Children's lives were in danger, but the government didn't care. The children I was taking care of survived, as did their mom, my mom, my brothers and sisters. Although I didn't hear from my family for the duration of the war, and I didn't know where they were, God later reunited us. We were safe and had not been physically hurt.

Every country should realize the consequences of war on its people. After the war slowed down, many people were homeless. They didn't have a place to stay because their houses were burned down. There were also many hungry children. Parents couldn't provide food for their children because they had to start all over again, and many of them didn't have the money to build homes. Even though the war has ended, the family members of the people who have been killed, or even those just scared, have memories that will never be gone.

A Mountain to Remember

By Lois Knight

A comparison and contrast essay.

Have you ever looked out over a valley in late spring when the early morning mist is hanging heavy on the tops of the trees? The smell of the newly turned soil crushes in against the dry dust of the gravel you are standing on. Have you ever felt the beauty of a place so intently it causes you to return season after season? I know of such a place. When I was a child, we called it Minny Mountain.

M inny Mountain was as timeless as we were young. It really was not a mountain so much as a huge hill, surmountable only by a single-lane gravel road. The road wound through lush trees and fields of corn, like a snake slithering across the opulent green of a well-kept lawn. With one sharp curve, the gravel road shot straight up a half mile or more to the top.

The hill on the south side of the road was oak trees and brambles. In late spring, my dad would load us up in his old black Chevy to go pick mushrooms or “weeds.” We always started early, so we could get the best ‘shrooms. The smell of the sweet williams and lilacs perfumed the air as we walked. We would walk for miles up and down that one hill, hunting the elusive delicacies. Paper sacks originally holding a six pack of beer held the grubby fungi, or the tangle of wild dandelions, lettuce, sour dock, and other edible weeds.

By late summer, the trees in the valley would take on the bright hues of the harvest, and the smell of corn chafe would make us sneeze. Wild grapes would be ripe and sweet, just waiting for Dad to make wine and jellies. Our sacks were bigger and sat on the ground as we ran back and forth with bunches of fruit. The weeds along side of the gravel road were dry and dusty, not fit to eat. Dad said they took on a bitter taste in the fall because of the lack of water.

After the first killing frost, we hunted rabbits in the ditches, looking for their tiny footprints in the first skiff of snow for the year. Sometimes Dad would hunt squirrels and quail, going further back into the brambles and brush. Sometimes I would go, sometimes my sister, Annie, and sometimes we sat in the car and waited for Dad. It was cold.

And it got colder. The Missouri hills can reach minus forty degrees in January. We didn’t care. For kids, this was our favorite time of year. Minny Mountain would be iced over and so slick the only way to climb her was with a set of chains. Most people avoided this hill in the winter time. So it made a perfect spot to go sledding. For weeks, we would sit in Dad’s workshop and wax the runners of our sleds. Coat after coat was diligently applied and rubbed in. Finally, the day would come

when the snow was deep enough, and the air was crisp and cold clear to the bottom of our lungs. Dad would tie all the sleds on top of the old black Chevy, would load every kid in the neighborhood in the car, and off we would go to Minny Mountain. Sometimes there would be seven or eight kids jammed in that old car.

Dad always approached Minny Mountain from the bottom and gunned the old car into gravel spitting, snow flying, herky-jerky motion, shifting half-way up, yelling at us kids to help push “ ‘cause we weren’t going to make it!” Being kids, we believed him, every one of us helping push on the dashboard or the bench seats, until we finally reached the top at a slow crawl. Dad would turn around in Norman Head’s driveway at the top of the hill, coming to rest at the top of the hill overlooking the valley.

We had two rules on Minny Mountain, and they applied whether we were hunting mushrooms or going sledding. We had to come up the hill if we went down it, and if Dad sounded the car horn, get out of the road, a car was coming.

The littler kids would sit on their sleds, and the older ones or Dad, would give them a push. The bigger kids would run at the hill, flopping on their bellies as the tracks of the sleds neatly sliced through the snow pack. It felt like racing the wind down that hill! We would be going so fast, we didn’t breathe until we stopped at the bottom. Then there was the long walk back up, just so we could go down the mountain again. What great fun!

The gravel road is gone now, replaced with a ribbon of black. Houses have replaced the forest on the south side of the road, and no one eats wild weeds any more. The view from the top of Minny Mountain is the same. The mist hanging on the trees in late spring is breathtaking, and the smell

of the ground being tilled for crops reminds me of going home and being a kid again.

A Big Change

By Aaron Marriott

An essay comparing and contrasting high school and college.

My first day at Des Moines Area Community College was an eye opening experience compared to my first day of high school. In high school, I remember thinking to keep my mouth shut, or otherwise, I could get beat up. On the other hand, in college I was concerned about trying to get my homework done and growing up. In college, I figured out quickly that I needed to make a few adjustments in my attitude, work ethic, and values.

My attitude in high school was to slack off as much as possible. I was concerned with just doing enough to get by, then taking the rest of my time to hang out with my friends. I never cared about anything more than I had to. Also, I was very egocentric. My opinion was always right in high school. I had a hard time looking at things from a different perspective then.

However, in college I was aware of the fact that I needed to make a few attitude adjustments. If the work and grades were going to please me and my family, first I had to come up with a new frame of mind. I figured out that I was never going to become educated if I did not keep up with my homework on a day-to-day basis and do all the assigned readings. So, I became studious and more open to other ideas. I started to focus on looking at things from the textbook's perspective. This helped me become

more open minded because I could start to see my ignorance.

Also in high school, my work ethic in the classroom was very lazy. I thought it was funny to show up to the class with only half my assignment done. If my homework did not get done in my study hall, it was never going to make it home with me. Looking back, my study habits never caught up with me until I got to college. This is why I was never concerned with them.

In contrast, college taught me how to work hard because if I did not, I would never receive a good education. I found out that I have to work hard and ask questions about material I do not understand. So, I decided to start doing my homework. When I look back, it was a gradual process. I did not start to make progress right away though; it took me awhile to start to get good at reading and studying. I began to learn the study process, which for me consisted of a close reading, asking questions, and listening. I have now got to the point where school is rewarding. I love the feeling of getting an "A" or a "B" if I know I did my best.

My values in high school were focused on self-indulgent pleasures such as drinking, chasing women, and being self-centered. I followed the path of desire. All my friends partied, so therefore, I partied. I was

focused on self-centered values, so I was very shallow. These habits hindered me in school because the time I was supposed to be putting in on my studies, I was using to have a good time. I was wrapped up in a way of thinking that could not allow me to see past ten feet.

Still, I had to become aware of the values that were going to profit me in the long run. I could not give in to desires that were going to cause me great pain down the road. So I started to become more focused on school. Instead of trying to cause trouble in the summer, I focused on reading books that I found interesting. I also started spending more time with my family and helping out around the house more. As I did these things, my values started to shift from being self-centered to allowing myself to make progress for the future. Also, my interest in school started to become more insatiable. My interest now is to focus on how I can improve my school grades, and how I can get ahead in life to find a good job in the future. I also have a thirst for knowledge all the time now. This causes me to read all the time and keep up on my school work.

These changes have given me a stronger will to do well in school. My grade- point average has risen along with my self-esteem. Teachers respond to me in a more sincere manner now. Also, my motivation has become more driven. My adjustments in attitude, work ethic, and values have given my life the extra push I needed.

Life and the Changes it Holds

By Heidi Petro

A comparison and contrast essay dealing with childhood memories and those of children in the year 2050.

When I was a child, I would get up early on Saturday morning just so I could watch the Jetsons, a comical cartoon about a family of the future. They sparked my curiosity about a computerized life. What would school be like? When and where would children play with their friends? What kinds of things would children do? In 1976, a computerized life was a fantasy, but in the year 2050, I believe it will be a reality.

Schools of the future will be unfamiliar to any person of my age. When I was a child of ten, I went to a large school. We sat in a classroom partitioned off, but not enclosed by walls. Teachers still wrote on blackboards; our homework, done with pencil and paper, had to be turned in to the teacher. However, in 2050, I imagine children walking to their P.C. (personal computer) to attend school; their work will be done on a keyboard and will be e-mailed or faxed to the teacher. Virtual reality helmets will put the child right in the classroom. Pencils and paper will be extinct.

Play is a child's mainstay, and I do not foresee any changes in this fact. When I was young, as soon as we got out of school, we would change our clothes and head for the playground. We would play tag and hopscotch. Sometimes, we would swing or play on the jungle gym. However, in 2050,

I imagine the changing of clothes will be into virtual reality play gear. This will allow the children to switch to their friends' list, a list of friends contacted by the computer. Then they can join other children on a virtual reality playground where they will play ball, catch, and tag. The suits will allow them to feel the sensations of these activities without the dangers involved in normal play.

Activities that kept me busy as a child probably will not be much different in the year 2050. After the playground, there were always other things to do: ride bikes, play with dolls, play video games, or card and board games. In 2050, I think these things will basically be the same although they will be virtual reality activities, games played with the movements of their eyes. These activities and virtual reality bike trails will keep children busy for hours.

When I stop and look at the past and the future, I see a big difference. My world growing up was about doing, physically leaving the house to enjoy myself. School, friends, and play were all real. However, in 2050, I envision a life of virtual reality for children. Life will be spent inside attached to a computer that simulates the sensations of the activity that they are experiencing at that moment. Everything from school to play will be done in a mental, computerized world.



Composition I

Flying

By Christina Connett

An essay about a meaningful experience.

Thomp! Thomp! Thomp! The song of the treadmill was to become my savior.

Toward the end of my sophomore year, I found something at which I could succeed. One thing I was driven by: exercise. Running was therapeutic. During that half-hour each day, I wasn't the fat girl who couldn't get a date to homecoming, the one who felt shameful and inadequate in every corner of the world. Stephanie, the gorgeous girl who absolutely loathed me and made jokes about me, was horrid and disfigured. Trevor, the picture of perfection and my long-time crush, was in love with me too. When I ran, I was thin and powerful. I was flying.

I don't remember a time when I wasn't comparing myself to my skinny friends or sitting on the edge of a chair to make my thighs appear thinner. I felt judged by my peers, scorned by complete strangers, and rejected by the male population. When I hit rock bottom at 180 pounds, I knew I had to do something.

The summer began, and the pounds began to melt away. I felt strong and on top of the world. I was losing weight, which was something I'd never accomplished. If I could be thin and conquer an issue that had kept me in the shadows my entire life, I could do anything. I could get popular girls like Stephanie to accept me, and maybe

even befriend me. I would gain the confidence to audition for solos in show choir. Maybe, just maybe, Trevor would see how gorgeous I could be on the outside. Then he could see that one the inside, I was an amazing person as well.

By the end of the summer, my wings had broken, and I was no longer flying. Running didn't feel good anymore. Instead, it felt like a chore. Each time I dragged myself onto the treadmill, I had to remind myself of why the exercise was vital. "This is for Stephanie and her rude comments. This is for the boy who called you Piggy in fifth grade. This is to feel confident enough to flirt with him." Sometimes, I would actually have to say it out loud to believe it. Once I was at my ideal weight and all those things came true, everything in my life would be perfect.

The first day of school came, and I felt gorgeous. I was down to 137 pounds and had become an unstoppable runner. I slipped into a denim miniskirt and radiated with joy as I bounded up the stairs, and my thighs did not rub together. At school, I sashayed into the choir room, a gathering place for show choir members. Those who hadn't seen me all summer would be shocked! I could feel an aura of power and beauty surrounding my body. The feeling was of pure exhilaration.

I had barely entered the room when I saw Stephanie. I did not hesitate in swaying over to her to deliver a sugarcoated greeting. Although her friends awed over the weight I had lost, Stephanie tilted her head to the side and arched her blonde brows, still skeptical of my appearance. Oh well, I thought, who cares what she thinks anyway? I was not going to let her ruin my victory.

Then I saw him.

I immediately sucked in my stomach because even though my abs were now strong and tight, the instinct was still there. After a summer spent backpacking through Europe, Trevor looked more amazing than ever. His biceps rippled out of his baby-blue shirtsleeves, and his confident stride made him all the more alluring.

Almost immediately, his eyes met mine. I had anticipated this moment all summer. But instead of receiving his pearly smile, I got a look of shock. His eyes widened, and he glided quickly toward the piano upon which I had propped myself. He was coming over! This was it; this was where all the sweat and side-cramps paid off.

"You're so thin! It wasn't the romantic line I'd dreamt of hearing, but a single word from Trevor was still a slice of heaven

"Yeah..." I replied, ever so casually.

"You must have lost, like..." He wasn't shy about letting his eyes wander. I blushed with excitement.

"Fifty pounds," I blurted.

Trevor shook his head in amazement. "But why?"

What did he mean why? "Well, because I was...fat!" This was not my crowning moment. What was he thinking?

"You were beautiful. You always have been."

No way. Trevor thought I was beautiful? When I had been so overweight? Why hadn't he told me this before? Why, all of a sudden, had my runner's thighs and smooth

waistline become third-place ribbons in a hollow victory?

Trevor, who is the most sought-after guy I know, drifted into another conversation and left me perplexed over the things he had just said. What could an intelligent, gorgeous dancer find attractive in a 180-pound slob? Was he just being a smooth talker?

I was still standing against the piano looking dumbfounded when Allison, a girl I hadn't seen all summer, bounced up with a cheerful grin on her face. Allison was as fat as I had been, maybe even heavier. She was wearing a halter-top that did nothing for her flabby arms. I felt ashamed noticing this because before today, when I saw Allison, I thought of her gorgeous contralto singing voice and her hilarious jokes. I had never really noticed her body.

"Do you remember all the exercises we learned at camp this summer? You and I start teaching it next week."

"What? Oh, I completely forgot to practice since camp! I guess I'm going to need your help, Ally. I'm sorry," I replied. How could I forget that Allison and I were teaching our entire team the amazing exercises we'd learned?

She frowned. "You forgot? I don't understand. You had all summer to practice. Oh well, it should come back to you. By the way, you look amazing."

By now, I didn't want to hear how amazing I looked, and I was sick of people asking how much weight I'd lost. What did it matter? What else had happened to me this summer? Had I become shallow and self-minded? I became obsessed with earning respect from disrespectful people like Stephanie and trying to get a guy to fall in love with me. In becoming such an obsessive exerciser, I'd forgotten other important things. I had forgotten to enjoy myself. The first bell rang, and Trevor brushed past me. "By the way," he added as if he'd never

left our conversation, "I'm sure you still are."

"Still am what?" I asked.

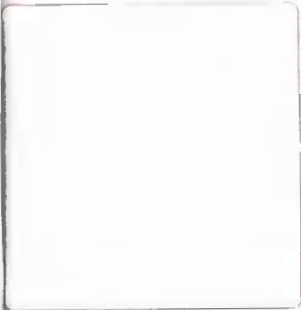
"Beautiful."

I was floored. He'd liked me all along, and not for my beauty, but for who I was. No matter how much weight I lost, Trevor would still think I was beautiful. No matter how much weight I lost, I would still run into hateful people like Stephanie. No matter how much weight I lost, I would always have friends like Allison, friends to keep me in check over what is really important in life: not letting it pass you by.

I still love running and the natural high it delivers, and I still do it every day. One thing that's changed is the reason I run. I do it for me. That moment in the choir room taught me to love my strengths and the things at which I excel more than my physical appearance. It taught me that keeping my body healthy had to be a victory won for myself because not all people would measure my value by the size of my jeans.

The sensation I got when I first started running has returned, and it's stronger than ever. I feel weightless. I *am* weightless.

I'm flying.



Matt

By Jason Darr

A remembered event essay.

I almost burst out laughing while I silently judged Matt the first time I saw him. He was short, but his chest puffed out, so I assumed he was strong despite his inflated gut. His hair was sandy blonde, with curls, and some of his facial features strangely reminded me of trolls or monsters in little children's books. He just looked funny. Mike, my boss at the meat market, introduced us and explained to Matt that I was one of the full-time workers, so I said jokingly, but with a stern voice, "Yeah, so you have to do everything I tell you to do." A big smile formed on his face as he let out an ongoing chuckle. For me that was enough; he had made a good first impression. I immediately liked him and forgot about any assumptions I had first made by his appearance.

Matt and I immediately clicked as friends because he was easy to joke with. We would feed off each other's humor, sometimes feeding so much that the beast got a little too big, and we would get in trouble. It was great to laugh like that again. I had not felt like that since I had moved back home from college and even a little before that. I never got a chance to thank him for that.

Working in the meat market was my full-time job, but I also had a job at a movie theater part-time simply to save money and

to see any movie, any time for free with a guest. I would often bring Matt as my guest, and eventually he decided to get a job there as well. The nights we worked together were never dull. We had "laughing contests," in which the first person to laugh or even mildly snicker, lost. Basically, there were no rules to the game. Matt would never crack; he would force himself not to laugh no matter what I did, such as acting like I was trying to drink water as I spilled it all down my shirt and on the floor, dancing like an idiot in front of customers, or any other crazy ideas I acted out. Only after I laughed first would he finally break into his low-pitched constant chuckle, which meant I lost the game. His chuckle was one of the most awkward, but contagious forms of laughter I had ever heard.

I never forgot the nights we hung out at his house drinking, playing pool, or playing video games. Things were great, and it felt good to have a friend I could connect with and talk to about anything. In fact, things were so great that I barely seemed to notice all the small changes that were beginning to occur in him.

It's hard to explain exactly where the changes took place. I think it was at work when he started showing up late, and when he was there, his attitude would be careless. He no longer made his work area clean and

did not greet the customers with a smile. The first time he showed up late surprised me, but I assumed he had a good reason for it. I never did bother to ask. From then on, it became a natural thing as he was late almost all the time. We started expecting him to be late. He would offer no explanation or reason, and my bosses at both jobs were becoming increasingly angry with him. Also, his appearance became annoyingly sloppy. His clothes were often dirty, wrinkled, and once in a while, the colors didn't match. I kept going on my usual path without even taking the time to figure out what was happening to him.

Then one night, everything came to a screeching halt between us. We were at his house shooting our usual game of pool when the phone rang. He answered, talked for a while, and then hung up. There was nothing unusual about this until he came over to me and asked with a strange smile, "Hey, if I could get some cocaine tonight, would you wanna do some?" Immediately, my mind exploded into millions of tiny thoughts as I visualized all the possible answers I could give to him and what the outcome would be for each one. It always seems like the old wise man sitting in my head, which always knows the right answers, never speaks up in situations like this, while the curious little indestructible kid, who would try anything, never stops yelling. I tried to stall for time, acting like it wasn't a big deal either way if we did or didn't. I tried to lean towards the answer "no" in all the ways I could without actually saying it. He kept pushing and trying to smooth talk me. He made it sound like it was no big deal.

Finally, I knew the only way to get across to Matt would be to just come out and firmly say "no." So I forced myself to do what seemed like one of the hardest things I have ever had to do. I told him

"no," but he wasn't going to give up that easily. For some reason, he was not going to let it go until I said "yes." In my head, the young boy was screaming, telling me to just try it; he was on Matt's side. I was riding right on the line, and it seemed like everything was pushing me towards one side. I finally decided I had to stick with my answer and show some backbone. I kept saying "no" and started to get angry.

Immediately, I was thinking of any excuse I could to leave. Nothing seemed to come to mind, so I just headed for the door. He knew I was upset and tried convincing me to stay and furthermore to just "try it." I kept walking out the door as I finally got an answer to the questions that I never even thought to ask.

Matt was slowly pushing himself into a hole that he would never be able to crawl out of because the amount of drugs he was doing and how it was affecting him. I knew our friendship had come to an end. I realized that I had focused all my attention on trying to impress him and making him like me that I never even noticed how much I disliked him.

Eventually, he stopped showing up to both jobs, so they fired him. All of a sudden, I went from seeing him all the time and hanging out every day to absolutely no contact at all. For a long while, I had such a mixture of feelings toward him. Aside from everything, I simply missed my friend. I started to slip into a depression and asked why I couldn't have at least tried it if it meant keeping him as a friend. But I knew it had been my choice, and it was the right one. This was one of the loneliest, confusing times in my life. I just wanted to run away and start over new somewhere. I felt as if I was being punished for making the right choice.

Time passed as I stayed on my path. New people came and went, but none were

really as funny or stood out to me. Slowly, I began to forget about Matt, and I decided life went on, as it always does. Everyone has to make his or her own choices in life and live with them.

It had been a long time before I ever saw Matt again, until one day he came into the meat market to buy some steaks. He invited me over to grill and have couple beers, so we could catch up, but I just said I was busy. I actually almost didn't even recognize him when I first saw him because he had lost so much weight and looked terrible. His clothes were dirty, and it looked like he hadn't showered in a month. I felt so bad because I knew then that I should have noticed all along. Maybe if I had realized it, then I could've tried to talk to him and get him some help. It was far beyond me at that point, and I didn't want anything to do with him anymore, let alone help him with his problem. After that day, I never saw him again.

A short while after seeing Matt for the last time, another friend told me that the cops showed up at Matt's house one day and arrested him. It turned out that he had a meth lab in his basement and was dealing his own drugs all the while. I can't believe that I was aware of anything the whole time until that night. When I had heard this, my jaw dropped, and my heart sunk. My friend went on to tell me that Matt was in prison doing time for possession and selling illegal drugs.

When I think about all of it even now, it is so hard to believe. I look back to when I first met him and think how I never would have imagined things turning out this way. Some days, I wish I could go back to do things different and try to help him. But other days, I think it's a good thing I can't go back and change things whenever we want to because there were times when I wished I could've gone back and at least

tried those drugs just to know what it's like. If I could have done that, then I probably would be sitting next to him in a prison cell right now wishing I could write a story like this.

Advantages of Sustainable Agriculture

By Colin Meginnis

A concept essay that appeals to a specific audience, follows a logical plan, uses clear definitions, utilizes various writing strategies, and presents information based on expert sources.

Widely practiced until the twentieth century, sustainable agriculture is a method of farming that is rapidly gaining in popularity because of the myriad benefits that it provides to the Earth, farmers, and consumers. Sustainable agriculture refers to an agricultural production and distribution system which integrates natural biological cycles and controls, and protecting and renews the fertility of the soil (“About”). Sustainable agriculture also reduces the use of nonrenewable resources and purchased production inputs and provides the farmer with an adequate and dependable income (“About”). Finally, sustainable agriculture minimizes adverse impacts on health, safety, wildlife, water quality, and the environment (“About”).

Integrating natural biological cycles is one aspect of sustainable agriculture. Modern agriculture, also known as conventional agriculture, relies upon heavy use of fertilizers and pesticides to grow crops. At a farm practicing sustainable agriculture, these modern fertilizers and pesticides, usually derived from petroleum, are not used. Rather nutrients for the crops are supplied by decaying organisms, like mulch, compost or manure. By spreading these substances on the field, the nutrients in the dead plants are released back into the ground, and the soil has a chance to regain some of the sev-

enty-two biological trace elements in the soil (Weis). None of these trace elements are supplied to the soil by conventional fertilizers.

Soil fertility and quality are improved when a farm switches to more sustainable farming methods. Beneficial bacteria and other microorganisms, also known as biota, are also increased as a result of the additional amount of biomass in the mixture of the soil. Friability, or the ability of the soil to be easily broken or crumbled, is another desirable trait that is enhanced by the addition of biomass. Peter H. Weiss writes,

The addition of these complex chemical and biological compounds to the soil, via incomplete decay, substantially raises the physical, chemical, and biochemical complexity of the soil. This dramatically increases the quality, fertility, friability and water retention capacity, as well as the fabric of soil biota of the soil. In short, and in time, it turns once barren soil into highly complex, rich and fertile loam[...].

After three years of pesticide and chemical-free management, a farm or field can be certified organic by a certification agency. Organic certification standards vary; however, with the introduction of the USDA's Organic seal, consumers can be confident of

how the fruit, vegetable, or food product was grown. The USDA's marketing material on the organic certification program states that "The regulations prohibit the use of genetic engineering, ionizing radiation, and sewage sludge in organic production and handling. As a general rule, all natural (non-synthetic) substances are allowed in organic production and all synthetic substances are prohibited" (Labeling).

A reduction on the reliance of nonrenewable resources, such as petroleum-based fertilizers, is another aim of sustainable agriculture. Howard Lyman, a fourth generation cattle rancher from Montana, states that approximately eighty percent of all grain grown in America is grown just to feed animals (125-126). Lyman continues, "the governmental limitations, lax though they are, on the use of pesticides for human consumption do not apply to crops destined for livestock" (126). The problem of pollution from pesticides derived from petrochemical sources is one that can be avoided, and a farmer practicing sustainable agriculture will shun these artificial means of fertilization and pest control. Growing different types of crops on the same parcel of land from year to year, known as crop rotation, is a foundation for a program of natural fertilization. Returning compost, hay, and other plant material to the ground also has a positive effect on the quality of the soil as the nutrients from the plants are returned to the soil during decomposition. An additional advantage of compost versus petrochemical fertilizers is that by using compost, the farmer will encounter a great reduction in cost since there is usually an abundant supply of plant material just waiting to be composted on most farms.

Farm income can typically be increased when a farmer switches from conventional agriculture to sustainable agriculture. Money saved from not having to buy petro-

chemical fertilizers is one cost that can be cut from a sustainable farm's budget, but this is not the only financial change that occurs. For example, the Cooperative League of USA (CLUSA) works with over 8,000 coffee producers to introduce sustainable agriculture methods to their farms in East Timor and Nicaragua. After three years, the program has increased the net income of the producers by 125% in East Timor and increased the net income of Nicaraguan farmers by 214% (Sorby). This increase in net income, writes Sorby, "is directly attributed to the high price premiums of organic produce, and the reduction of marketing costs due to the establishment of direct buyer-producer linkages" (1).

Sustainable agriculture is gaining a more widespread following, with more and more farmers switching from conventional and chemical intensive means of farming to sustainable and organic farming. In Iowa alone, the number of certified organic acres has grown from 35,769 acres in the year 1997 (Greene), to 80,354 acres in 2001 (Johnson). Similar increases in organic farms are occurring across the United States and the rest of the world. As food safety and productivity continue to be a concern for any farmer, one can predict that the trend of sustainable agriculture is here to stay.

Works Cited

- “About SAN and SARE. Sustainable Agriculture Research and Education (SARE) Program.” 28 March 2004 <<http://www.sare.org/htdocs/docs/SANandSARE.html>>.
- Greene, Cathy. “Harmony between agriculture and the environment: current issues.” 12 April 2001. Economic Research Service, United States Department of Agriculture. 28 March 2004 <<http://www.ers.usda.gov/emphases/harmony/issues/organic/table3.htm>>.
- Johnson, Dale. “Organic farming exceeds 2 million acres in United States.” 10 May 2003. Iowa Farm Bureau. 28 March 2004 <http://www.agandenvironment.com/news/news_20030510.htm>.
- Labeling and Marketing Information. United States Department of Agriculture. October 2002. 28 March 2004 <<http://www.ams.usda.gov/nop/FactSheets/Backgrounder.html>>.
- Lyman, Howard F., and Merzer, Glen. Mad Cowboy: Plain Truth From the Cattle Rancher who Won't Eat Meat. New York: Touchstone, 1998.
- Sorby, Kristina. “Production costs and income from sustainable coffee.” June 2002. 28 March 2004 <[http://lnweb18.worldbank.org/ESSD/ardext.nsf/26ByDocName/ProductionCostsandIncomefromSustainableCoffee/\\$FILE/ATN30BackgroundPaper3.pdf](http://lnweb18.worldbank.org/ESSD/ardext.nsf/26ByDocName/ProductionCostsandIncomefromSustainableCoffee/$FILE/ATN30BackgroundPaper3.pdf)>.
- Weis, Peter H. “The Natural Cycle - a rich, abundant and permanently sustainable agriculture.” 1998-2004. 28 March 2004 <<http://www.truehealth.org/anatcycl.html>>.

Eating Disorders

By Meri Morris

A concept essay that appeals to a specific audience, follows a logical plan, uses clear definitions, utilizes various writing strategies, and presents information based on expert sources.

Eating disorders affect one out of ten American teenagers. Most of those affected are females between the ages of 12 and 25. Psychiatrists identify two eating disorders as anorexia nervosa and bulimia. Those who suffer from these disorders are characterized by having a preoccupation with food and a distorted body image. Many teenagers can hide these serious disorders from their families for months and years (American Academy of Psychiatry). Exactly what are anorexia nervosa and bulimia and what are the differences between the two? What are the effects on the body and what treatments are available?

Anorexia nervosa is defined as self-starvation. Those suffering from anorexia have an irrational belief that they are overweight no matter how thin they become. A teenager with this condition is typically a high achiever and a perfectionist. This teenager will only feel in control of her life when she ignores the normal food demands of her body. She will literally starve herself to death in order to become thin (American Academy of Psychiatry).

There are several warning signs of anorexia nervosa. Foremost are a dramatic weight loss and a refusal to maintain a normal body weight, usually at least 15% below normal guidelines. This patient might also have an intense fear of gaining weight

and a negative body image. She may appear anxious or ritualistic at mealtimes. She may also suffer from menstrual changes, depression, fatigue, irregular heartbeat, lightheadedness, and anemia (Mayo).

Bulimia sufferers typically have different symptoms than anorexia nervosa. These patients binge on large quantities of food and then purge their bodies of the calories by self-induced vomiting and by using laxatives. These binges can be combined with severe dieting, resulting in large weight fluctuations (American Academy of Psychiatry).

The signs and symptoms of bulimia include reoccurring eating binges and a feeling that one cannot control his or her eating habits. Those who have bulimia will often eat huge quantities of food at one sitting, followed by an attempt to purge the body of it. Physical symptoms include dehydration, fatigue, weakness, dry and yellow skin, and damaged teeth and gums. They may appear depressed and irritable. Like anorexics, they can suffer from an irregular heartbeat (Mayo).

The effects on the body of the anorexia nervosa and bulimia can be devastating. The most severe cases of anorexia nervosa result in death due to starvation. Heart disease is also a common cause of death for anorexics due to weakening of the heart muscles.

Other complications include hormonal changes, infertility, digestive problems, blood disorders, and severe nerve damage. The effects of bulimia are not as severe since victims usually maintain a normal body weight. They include teeth and gum problems, digestive disorders, low potassium levels and behavioral and emotional problems. Patients also may abuse over the counter medications such as laxatives, diuretics and appetite suppressants (Mayo).

Researchers do not know the exact causes of anorexia and bulimia. Genetics, family behavior, and culture all may play a role. Scientists have indicated that sufferers may have a brain abnormality in the area of the hypothalamus that controls mood and appetite (Stein/Unell 43). Also, media and society play a large role. Teenagers get bombarded with the message that thin is attractive. Girls may develop a distorted body image trying to achieve excessive thinness (Mayo). Our American culture values people on the basis of physical appearance and not inner qualities. Also, low self-esteem is a major factor in both disorders (National Eating Disorders Association).

There are several treatment options for those who suffer from anorexia nervosa and bulimia. The most severe cases of anorexia nervosa require hospitalization to rehydrate the body and restore electrolyte balance. The patient's physician will work with a nutritionist to develop a plan for healthy weight gain. Psychotherapy is often recommended to overcome emotional issues, distorted attitudes, and negative thinking. Family counseling is also helpful. Many times an antidepressant is prescribed to aid in the recovery process (Mayo).

What can be done to prevent anorexia nervosa and bulimia? Authors Patricia Stein and Barbara Unell offer these suggestions for parents (Stein and Unell 81-82).

- Provide an accepting environment. Don't equate your approval of an individual with appearance or eating habits.
- Don't bribe your child to lose weight. Avoid nagging over food choices.
- Encourage healthy eating habits by setting a good example and providing healthy food choices.
- Encourage healthy exercise.
- Avoid commenting positively or negatively about other people's weight.
- Help develop a positive self-image and confidence that is not tied to physical appearance.

Eating disorders can be devastating to their victims and those who care for them. Anorexia nervosa can be deadly, and bulimia can overtake a person's life. Parents and loved ones need to be aware of the signs and symptoms of these disorders. With proper diagnosis and treatment, the patient can overcome the disease and go on to live a healthy, normal life. There are several preventative steps that can be taken to help avoid anorexia nervosa and bulimia. Developing positive self image and healthy attitude can be a challenge for some, but may also save their lives.

Works Cited

American Academy of Child & Adolescent Psychiatry, Teenagers with Eating Disorders, 15 March 2004 < www.aacap.org >.

Mayo Clinic, Eating Disorders, 16 March 2004 <www.mayoclinic.com>.

National Eating Disorders Association, Eating Disorders Information, 16 March 2004 <www.nationaleatingdisorders.org>.

Stein, Patricia M and Barbara Unell. Anorexia Nervosa: Finding the Lifeline. Minneapolis: Compcare Publications, 1986.

The Gift of Life

By Linda Riedell

A third-person narration.

Her hands pried open the flaps on the cardboard box. Her eyes peered in child-like curiosity. She had heard stories about her grandmother's life, where she worked and how she passed, but the persistent reminder of an obituary she had happened across drove her to want to know more. She felt the loss of her grandmother as if she had once spent quiet evenings on her lap listening to bedtime stories, knew the scent of her hair as she was being cuddled with a kiss, or stood on a stool beside her baking cookies on a Saturday afternoon. It was thoughts of these never-spent moments with Grandma combined with the feeling that she had been cheated out of family holidays, that hollowed out a sense of emptiness into her soul. The incompleteness drove her to the closet doors guarding this sacred box belonging to her mother.

"What is this?" she wondered quizzically as she pulled a plastic something from beneath the papers. What emerged was the arm of a baby doll, safety pinned to its cloth body. She smiled, thinking it was a bit like rescuing someone from wreckage. Another safety pin held a handwritten note, "My Christmas doll 1936." The baby doll's cloth body was soiled from the many tea parties and outings it must have shared with its mommy. Its face, a bit worn for wear, was definitely full of kisses burned into the baby

doll's cheeks. The granddaughter smiled as she discovered the deteriorated rubber band holding barely any hair in ponytail fashion on the doll's balding head.

Beneath a mass of miscellaneous items, she discovered a beautiful satin-covered scrapbook. Inscribed by her mother's hand were the words to Jim Croce's song, "Time in a Bottle." The young lady's tears fell, forming pools on the words, "If I could save time in a bottle, the first thing that I'd like to do, is to save every day till eternity passes away, just to spend them with you." She caressed the satin and in that instant knew the loss her mother had lived with most of her life. She began opening the book so lovingly assembled by her mother but stopped for a moment to cleanse her thoughts with sacrificial tears.

Inside the cover, the 18 year-old girl's hands came upon an aged, oversized birth certificate bearing her grandmother's name and the date: 1931. She wondered if this birth had been a home delivery as many of that time were, or if her great grandmother had experienced the luxury of a hospital. As she laid this certificate on the bed beside her, she thought of it much like a block to a quilt and wondered where she fit in the many pieces that she would be stitching together. This, the first block of the quilt, and legal proof to the birth of a little girl

named Betty, mother of Linda, her grandmother, was the template for the next generation and every generation after that.

Trying hard to hide, or rather, trying hard to be seen, was the curled edge of an envelope that seemed to be screaming, "Pick me next!" Yellowed from age and creased shut, it bore the hastily scribbled words, "Betty's first hair cut." Inside and attached to a photograph, she found a lock of brown hair, one simple curl tied with a faded pastel ribbon that has long since lost its true color. Instinctively, she closed her eyes and held the lock to her nose as if she could capture some trace of the child's scent. When she turned the picture over, her eyes fell on a small-boned girl of about four sitting in a chair in front of a rather stern looking woman wearing a housedress and apron. A great sense of homesickness fell over her when she realized she was holding in her hands two generations forever unknown to her. She sat staring, mesmerized by the simplicity of her grandmother and great-grandmother sharing a moment captured on film forever. Page by page, she savored each memory that had been bound by the love of a daughter.

Finding a marriage certificate bearing the city name of Prescott, Minnesota, and documenting the union of John and Betty brought a lump to her throat. Attached to the back of this document was a black and white photograph of the happy couple. The bride was dressed in a fashionable hat and suit of the time and those awful stiletto heels worn in the 50's. Knowing how men think, the young woman snickered as she thought, "How proud my grandfather is standing there in his rather oversized suit in front of his prize: the mammoth looking Plymouth with the large hood ornament."

The last entry in this incomplete legacy was a card bearing one line to convey its sentiment. So simple, yet so very complex,

it read, "I could have given you the gift of fruit and flowers, but I chose to give you the gift of life instead." The young lady wondered what this card bearing many signatures represented. So many questions remain unanswered and more mother-daughter moments to be captured on film. This box of remnants representing one woman's life would seem insignificant to most, but the granddaughter who is beginning to unravel the threads has discovered her roots.

Identify Yourself

By Kyle Titus

A concept essay that appeals to a specific audience, follows a logical plan, uses clear definitions, utilizes various writing strategies, and presents information based on expert sources.

It can be quite a hassle when you forget a password for your computer or your pin number for your ATM card. Locking yourself out of your house or your car isn't pleasant either. Biometrics, however, may one day change all that. Biometrics is a technology used to identify a person through a physical or behavioral characteristic (Cashman, et. al. 5.32), and there are several types of each characteristic. Some examples of physical biometrics are finger-scan, facial-scan, iris-scan, and hand-scan. Also, voice-scan, keystroke-scan, and signature-scan are kinds of behavioral biometrics (Nanavati S., Nanavati R., Thieme 10). The following will give detail on finger-scan, iris-scan, and signature-scan technologies and will list some of the main strengths and weaknesses of each.

One physical biometric used to identify a person is finger-scan. In fact, finger scanning is the most widely used biometric technology with 48.8% of the market using it (Biometrics: The Anatomy Lesson). One reason is from the decades of researching, analyzing, and perfecting this technology. The biometric is available as a peripheral device, such as a printer or keyboard, or a stand-alone device in which the processing is done within the same mechanism. Each of these work in the same basic way. An individual places a finger on a platen, the

surface that the finger is scanned. The platen can be made of glass, plastic, silicon, or polymer. After the finger has been scanned, the system thins the ridges of the print, making it easier for the computer to interpret and turns the image into digital code. Finally, the code is compared to a previously stored code that will determine if the person is who they say they are (Nanavati S., Nanavati R., Thieme 47-51).

There are some uncertainties on how effective finger scanning can be. One involves people with certain ethnic backgrounds. There are ethnic groups, an example being Asians, who have less defined fingerprints than the average person. Elderly and people who do a lot of manual work with their hands tend to have worn fingers, which also makes it hard for finger-scan technology to read. Daily wear on certain systems have caused the error rates to increase dramatically. Still, most finger-scan systems have remained able to verify nearly 100% of its users, showing high accuracy rates. Since finger scanning has been around for several decades, it has become cost effective for almost anybody to use, and the size of the biometric has become particularly small, some just bigger than a coin. This quality also helps the system adapt to many environments. It is even

being formatted for cars and cell phones (Nanavati S., Nanavati R., Thieme 58-60).

In Pennsylvania, New York, and Florida, prisons are using iris-scan to verify that inmates being released are who they claim to be, or that the visitors leaving are not actually inmates. Iris scanning is even starting to be implemented in ATM's and Kiosks for banking and traveling purposes (Nanavati S., Nanavati R., Thieme 82). The iris is the colored portion around one's pupil. For the iris to be scanned, an infrared illumination device is required, so a specialized camera can take a high-quality image of the eye (Nanavati S., Nanavati R., Thieme 78). This camera is usually hidden behind a small mirror, so the individual can correctly position his or her eye. The camera then locates the eye and centers on the pupil. Unlike the finger-scan, iris-scan technology is only available as a peripheral device and cannot function on its own (Nanavati S., Nanavati R., Thieme 80-82).

Many people have a difficult time using the iris-scan technology because the devices must have a precise positioning of the head and eye. This problem discourages people from using this type of biometric and may also increase the rate for false matching. A notable amount of people simply are uncomfortable using "eye-based" biometrics. Nonetheless, iris-scan has several substantiating strengths. "The iris has more unique information than any other single organ in the body," noted Bill Willis, chief technology officer at Iridian. An iris has roughly 266 distinctive characteristics (Biometrics: The Anatomy Lesson). Scanning an iris is not only a lot more accurate, but it's the most speed efficient biometric today. Unlike a fingerprint becoming worn, an iris stays the same throughout a lifetime (Nanavati S., Nanavati R., Thieme 83-86).

When thinking of signature-scan, someone might assume one signature is going to be compared to another. With biometrics, that usually is not the case. Signature-scan, a behavioral biometric, is determined by three main characteristics: stroke order, speed, and pressure. Since a person's signature is likely to vary, several signatures are required when first enrolling into a signature-scan system. The actual device looks similar to the mechanisms used by shipping deliverers. However, it works about the opposite. Instead of the tablet picking up the information, in a signature-scan, the pen picks up the stroke order, speed, and pressure.

The main dilemma concerning signature-scan revolves around the inconsistency of a person's signature. A system must compensate for an individual's unpredictability to write his or her name the same but must be strict enough not to allow fraudulent claims. Many people are unfamiliar with writing on tablets instead of paper, causing even more of an error rate. However, some businesses are in the process of producing paper-and-ink signature-scan technology (Nanavati S., Nanavati R., Thieme 83-86). Many people have the ability to forge a person's actual signature, but it is unlikely for a person to copy the exact hand movements of another. The authors of Biometrics: Identity Verification in a Networked World believe signature-scanning will develop more for business transactions and financial applications.

In the midst of the 9/11 tragedy, there has been a push for better identification systems. Biometrics is being carefully considered by many as a way for better security, and there is a broad range of environments biometrics can be implemented in. Still, though biometrics is advancing greatly, there is much to be done to produce convincing systems.

Works Cited

Biometrics: The Anatomy Lesson. Complete Identification Verification Resource. 23 Oct. 2003 <<http://www.findbiometrics.com/Pages/feature%20articles/anatomay.html>>.

Cashman, Thomas, et. al. Discovering Computers 2004: A Gateway to Information. Boston: Thomas Learning, Inc, 2003.

Nanavati, Raj, Samir Nanavati, and Michael Thieme. Biometrics: Identity Verification in a Networked World. New York: John Wiley & Sons, Inc, 2002.

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Red Rooster

By Tim M VanDerKamp

A profile essay that tells an informative and interesting story about a person, place, or activity based on personal, firsthand observations and/or interviews.

A black marquis marks the path in nondescript letters leading off of Highway 92 down a well-kept gravel road. The sign states simply, "Pumpkin Patch, 1/4 mile." As the white dust billows behind me, I am curious about the location. Why not a store in town or a roadside stand? How many people would possibly venture down a gravel path in search of the bright orange vegetable used primarily for entertainment? The answers are waiting a few minutes away.

The white farmhouse on my right marks the only possible destination. I see its shingle roof violating the landscape of brown cornstalks still standing in the adjacent field. From a distance, it reminds me of every other farmhouse I've ever seen; un-flattering, conservative, but primarily adequate. The idea of living or growing up out here depresses me, but I've heard about the success of the man I am going to interview, and the thought gives me hope.

I am excited to discover that this scene has been misleading as I reach the end of the cornfield, I am dazzled with color, billboards, straw bales, tents, hayracks and piles of orange, white, and green vegetables some as tall as me. There are at least ten people milling about the roadside market, and it is only eight o'clock in the morning. I do not realize that these people are not spectators or even customers. I will find out later

that they are not just the dedicated employees of Red Rooster Farms, but the family and friends of Lloyd Chapins, the man I have come to see.

I park my car in the rock driveway to the north of the house under a row of well-groomed, cedar trees that line the driveway leading up to a large, red and white barn. A 4020 diesel John Deere tractor is parked with its nose half out of a white Morton building, and a beautiful, red Chevy pickup sits under a huge maple tree. Emblazoned on the door is the unmistakable outline of a chicken and the words, "Red Rooster Farms."

There is a sense of proportion to the place; everything is clean, neat, and in proper working order. Every building is shingled and painted. The grass is groomed and all vehicles have been recently cleaned despite the gray sky that promises rain this day. I appreciate this way of keeping things and become excited with the anticipation of meeting the owner of this business.

It doesn't take me long to find Lloyd Chapins. I round the south end of the house in short time and encounter a man who is in a white baseball cap, blue jeans, and button-up shirt supervising the set-up of a tent where his wife will carve pumpkins throughout the day. He stands and shakes my hand. I don't ask but guess the man and

his wife to be mid-forties. I note the firmness of his grip and confident look in his eye; he looks directly at me as he speaks, "Lloyd Chapins, this is my wife and my daughter." He introduces several other boys, high school guys that work part-time for him during the Halloween season and again during the summer. "Where would you like to begin?" he asks.

History is the way of things for me. I ask him when he began his business, and how this grand masterpiece before me came to be. Lloyd gave me a short chronology of the farm: he and his wife began by renting the house and later the farm land that went with it. They remodeled the house and planted seven of the eighteen acres in sweet corn, eventually followed that with three acres of strawberries that they irrigate, and an acre and a half of Indian corn. The ground that remained went into pumpkins.

"Business has doubled about every year," said Lloyd as he walked me out to the field and showed me the boundary lines, all the individual crops, and their corresponding rotation plots. "We began with just the eighteen and then bought the neighbor's 76 acres. We also cash rent about fourteen acres from some of our neighbors and put most of that in pumpkins."

When I asked about his success and what advice he would give to a person interested in opening a small business, he said, "Learn marketing. It doesn't do you a bit of good to grow a product and not be able to sell it. I believe most farmers are excellent businessmen, and they are fantastic at wheeling and dealing for their inputs, but they are terrible marketers. If you are forced to accept market value on everything you grow, you get in trouble, and you're at the mercy of the market." He further attributed his success to keeping his debts low and his margin high. It's a lot of hard work, and he counts his largest expense in labor.

We talked at length about his future plans of expansion, and Lloyd says the economic slowdown has had little, if any, noticeable impact on the business of micro-farming. The dry year hurt some of the competition, and he has capitalized on use of irrigation and good crop rotation programs. He does have plans of converting his nice red barn into a farmer's market at some point, but hasn't put the idea into motion. He had at one point, considered putting on a haunted barn, but the investment of evening hours required would have been an additional time strain on his already busy family; they let the idea go.

I enjoyed my visit and left feeling inspired. I've spent my entire life around agriculture, and the constant gloomy outlook that has persisted since the early eighties would be enough to dissuade any young family from wanting to attempt farming. However, Lloyd Chapins and his family are not only farming successfully, but also doubling their margin nearly every year. No combines or huge machinery dot the landscape at their modest county house, just the combined output of hard work, marketing ability, and consistency by one family willing to go the length to remain on the farm.



Composition II

Hydrogen Fuel Cells for a New Millennium

By Andrew Austin

An essay that considers a problem, looks at alternative solutions, and argues for the best of the alternatives.

The world's dependence on crude oil to feed its insatiable industrial appetite presents the ever-present question of where that oil is supposed to come from. In 1992, Iraq invaded its neighbor, the country of Kuwait, claiming the Kuwaitis were stealing oil from Iraqi fields. The United States, faced with the fear of possibly losing an important oil producing state, was quick to respond with decisive military action. Blame for this "oil war" could easily be put on many individuals and factors: Saddam Hussein, for his defiance; U.S. President George Bush, for his insistence; China, for quickly absorbing an increasing amount of crude oil into its exploding economy. However, blame could more squarely and properly be placed on the world's reluctance to discard crude oil altogether and Americans could begin relying on alternative fuels to power its way into a new century. With China currently looming as the next giant in the world industrial market, this nation is seeing an increased demand for crude oil to meet the requirements of its exploding industries. (Schwartz). Also, on March 31 of 2004, the Organization of the Petroleum Exporting Countries (OPEC) announced it would cut crude oil production by approximately 4%, or one million barrels per day (National Petroleum). Partly because of this increased international

demand, and partly because of OPEC production cuts, gasoline prices in the United States are at an all-time high of \$1.84 a gallon national average (Gas Price Watch).

With these trends, and the problem only expected to compound itself as more countries become industrialized, there is a viable means for the governments of the traditional powers to free themselves from the congested traffic-jam surrounding the world's crude oil. This solution also offers an escape for consumers who are riddled with extreme gasoline prices. Hydrogen fuel cells are clean, efficient, and effective. Hydrogen is the primary source of power for the fuel cells, which harness the chemical energy of hydrogen and process it into usable energy. It is also the most abundant element in the universe, making up an estimated 90% of all atoms ("Hydrogen"). The fuel cells convert the hydrogen into electricity, working much like a battery. Similar to a battery, fuel cells have two electrodes: negative and positive, which are separated by a membrane (Bellis). When the hydrogen passes over the negative electrode (anode), it creates a reaction, which converts the hydrogen into negatively charged electrodes and positively charged ions (Bellis). The electrodes are then released from the cell as electrical energy to power the vehicle, while the ions are sent through the membrane to the posi-

tively charged electrode (cathode), where they combine with oxygen and electrons to produce water, which is then expelled as water vapor exhaust (Bellis). Because of this, fuel cells are completely clean, with no hazardous exhausts. An aggressive implementation of these fuel cells could present a solution to several crude oil problems because of the ready availability of hydrogen, its environmentally friendly, pollution-free exhaust, and the high efficiency of the fuel cells.

Notwithstanding the aforementioned, fuel cells do have drawbacks, chief among them being the cost of implementing any kind of fuel cell system. A kilogram of hydrogen – roughly the energy equivalent of a gallon of gasoline – presently can cost anywhere from four to six times that of gasoline (“What”). With technology that expensive to produce, trying to convert an entire nation – even a small nation - to a fuel cell system could cost billions (Popely). Traditional gasoline stations would have to be converted into fuel cell-friendly pumps, and consumers would have to pay a hefty price for fuel cell vehicles until the technology became mainstream – something analysts predict could happen as late as 2020 (Popely).

Nonetheless, the benefits of such a technology should not be overshadowed by the initially experienced cost. Hydrogen fuel cells are far more efficient than internal combustion engines – utilizing upwards of 40 percent of the available energy, as opposed to internal combustion engines, which average between 13 and 25 percent efficiency (“What”). A hydrogen-powered vehicle could easily offset the costs of the fuel cells since, because of the high level of efficiency, it can travel twice as far as internal combustion vehicles on a comparable level of fuel (“What”). Also, since hydrogen exhaust is only water vapor, toxic fossil fuel

emissions and oil spills would be nearly staved (Cook). Moreover, the high cost of such pollutants would be stemmed.

According to the Environmental Protection Agency, 56% of all carbon monoxide emissions in the United States stems from motor vehicles (“CO”). Carbon monoxide hinders the transfer of oxygen from the blood to tissue, which could lead to heart failure (“U-shaped”). In high-density cities, where nearly 90% of all carbon monoxide comes from motor vehicles, the clean-burning hydrogen fuel cell would, literally, be a breath of fresh air (“CO”).

Another possible drawback to the fuel cells is hydrogen leaks from either the fuel cells or the manufacturers, which could have an ironic backlash against the very environment it is protecting. Hydrogen leaks could widen and increase the number of ozone holes in the atmosphere (“Ozone”). An estimated 10% of all hydrogen produced would leak away, reacting with the oxygen in the atmosphere to create water, which would cool the stratosphere, and analysts believe would disrupt the ozone layer increasing the current depletion at a faster rate (“Ozone”).

However, while hydrogen leakage could prove highly dangerous, scientists admit that new technologies may well be developed to curb or eliminate the possibility of leaks (Jardine). Already, designs and prototype sensors have been produced to detect the leakage of hydrogen gas (“Mercury News”). Companies, like Sensistor, have begun producing small-scale hydrogen leak detectors, which could be expanded to detect leaks in fuel cells during production and use, helping ensure the energy will remain a safe and viable alternative to traditional fossil fuels (Sensistor).

A possible alternative to hydrogen fuel cells could be the hybrid car. The hybrid car runs on both gasoline and electricity and has

been in production since the mid-1990s. (Dawson). The hybrid car is extremely fuel efficient when compared to traditional internal combustion vehicles, averaging anywhere from 50 to 80 miles per gallon of gasoline (Baliunas).

However, hybrid cars are only a partial solution. While they do burn cleaner and are more efficient than normal internal combustion engines, hybrid vehicles still emit pollutants and run at a lower level of efficiency than hydrogen fuel cells. The electric engine of the hybrid car runs on a battery, which, eventually, must be replaced – at the cost of some two thousand dollars (Baliunas). Also, when the battery must be replaced, it presents an extremely hazardous waste, which must be disposed of, creating further pollution.

Another possible alternative to fuel cells are bio-fuels, which are derived from corn, grass, excess wood lumber, and so on. Ethanol – the most famous example – is normally derived from corn, barley, or wheat through fermentation and distillation but can also be produced from trees and grasses (“Ethanol”). Ethanol is often blended with normal gasoline (E10, a common form of ethanol, is 10% ethanol mixed with 90% gasoline) to improve emissions and improve octane (“Ethanol”). The Canadian company DynaMotive has recently introduced a substance called BioOil, which is made from salvaged scrap bark from the logging industry (“Drying”). BioOil is a fairly clean burning energy source – considered to be carbon dioxide free, with virtually no sulfur oxide (which emitted by sulfur fuels) and low levels of nitric oxide (“BioOil”).

However, bio-fuels only offer a short-term, partial solution to the pollution and availability problems. Ethanol is mixed with gasoline when produced, which still presents the necessity for crude oil. Ethanol also presents the problem of polluting emissions,

which are only reduced, not eliminated by this fuel. Likewise, BioOil, while at significantly lower rates than normal fossil fuels, still emits toxic gasses. Also, both these fuels rely on the harvesting of natural materials, like corn and wood, which may further deplete soil and timber resources because of an overproduction of the fuels. Hydrogen, in comparison, is readily available, clean, without the fear of depletion of the resource. Unlike hybrid cars and bio-fuels, which, while an improvement over traditional internal combustion engines, still pollute, hydrogen is completely clean, without dangerous batteries, which create further pollution.

Hydrogen fuel cells are the wave of the future, to help ensure a clean, bright, virtually inexhaustible, and extremely cost-effective tomorrow. Their implementation could end oil wars forever and help eliminate outrageous gasoline-pump pricing. Despite the costs of implementing this new technology, hydrogen is far more efficient than traditional fossil fuels and could offset many costs here alone. Hydrogen is also extremely clean and environmentally friendly, providing nothing but water vapor emissions. Changing the world’s focus away from the traditional views of the internal combustion engine and fossil fuels and toward hydrogen could help slash pollutants generated by automobiles, providing for a cleaner, more environmentally stable planet. While hydrogen leaks may damage the ozone layer, new technologies are constantly emerging to help preempt the leakage. Also, both hybrid vehicles and bio-fuels offer only a partial, limited solution to the growing pollution and oil shortage problems. Hydrogen fuel cells, however, offer a tantalizing vision of the world of tomorrow – where airborne pollutants are non-existent and the dangerous effects of fossil fuel emissions are a thing of the past. Forging ahead in this exciting new technology would help

America cement itself at the forefront of new, clean technologies, and help free the world from the dangerous and toxic past of crude oil.

Works Cited

- “Are The Oil Wells Drying Up?” Countryside & Small Stock Journal January/February 2001: 38. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Boone IA. 5 March 2004 <<http://search.epnet.com>>.
- Baliunas, Sallie. “Economics of the Oil Alternatives.” World & I November 2003: 26. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Boone IA. 3 April 2004 <<http://search.epnet.com>>.
- “Ballyhooed Hydrogen Fuel Cells May Have Environmental Drawback.” Mercury News. 12 June 2003. 3 April 2004 <<http://www.siliconvalley.com>>.
- Cook, Lynn J. “Great Balls of Hydrogen.” Forbes. 20 January 2003: 92. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Boone IA. 9 March 2004 <<http://search.epnet.com>>.
- “CO: What is it? Where Does it Come From?” U.S. Environmental Protection Agency. 9 March 2004 <<http://www.epa.gov/air/urbanair/co/what1.html>>.
- Dawson, Chester. “Fuel Cells: Japan’s Carmakers are Flooring It.” Business Week. 23 December 2002: 50. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Boone IA. 9 March 2004 <<http://search.epnet.com>>.
- Economist. “The Problem is U-shaped.” Economist 22 June 1996: 5. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Boone IA. 9 April 2004 <<http://search.epnet.com>>.
- “Ethanol” Alternative Fuels Data Center. 5 April 2004 <<http://www.afdc.doe.gov/altfuel/ethanol.html>>.
- “Fuel Cell Cars Appealing, but Costs High.” Popely, Rick. 30 January 2003. Chicago Tribune. 3 April 2004 <<http://chicagotribune.com>>.
- Gas Price Watch. 23 April, 2004 <http://www.gaspricewatch.com/usgas_index.asp>.

Geiselman, Bruce. "Polluters Pay Billions in Cleanup Costs." Business Insurance 5 January 2004: 21. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Boone IA. 5 April 2004 <<http://search.epnet.com>>.

"Hydrogen" University of California. 15 December 2003. 3 April 2004 <<http://pearl1.lanl.gov/periodic/elements/1.html>>.

"Hydrogen Fuel Cells: Innovation for the 21st Century." Bellis, Mary. 8 April 2004 <<http://inventors.about.com/library/inventors/blfuelcells.htm>>.

"Hydrogen Fuel Could Widen Ozone Hole." Nature News Services. 13 June 2003. 3 March 2004 <<http://www.nature.com/nsu/030609/030609-14.html>>.

"Hydrogen Sensors for Hydrogen Fuel Cell Applications." Jardine, Peter A. Ph.D. 8 April 2004. Powerpulse.net. 8 April 2004 <http://www.powerpulse.net/powerpulse/archive/aa_111300a1.stm>.

National Petroleum News. "OPEC Cuts Oil Production." November 2003: 9. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Boone IA. 8 April 2004 <<http://search.epnet.com>>.

Schwartz, Nelson D. "Why \$2.18 Gas May Be a Good Thing." Fortune 22 March 2004: 22. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Boone IA. 5 April 2004 <<http://search.epnet.com>>.

Sensistor. 3 April 2004 <http://www.sensistor.se/e_index.htm>.

What is a Fuel Cell?" Desert Research Institute. 3 April 2004 <<http://www.dri.edu/Projects/Energy/Fuelcells/Fuelcells.html>>.

"What Is BioOil?" DynaMotive. 3 April 2004 <<http://www.dynamotive.com/biooil/whatis-biooil.html>>.

Stem Cells: Destroying Lives or Saving Them?

By Laura Bell

A researched, multi-sided argument on an issue.

Charles lies in the hospital bed, unable even to think clearly because of the horrible pain. Even the morphine the doctors have given him is not enough to deaden the pain to a tolerable level. Although the sound of his mother's voice is soothing, part of him longs for death. Through the haze of painkillers, he recalls that two days earlier, he was helping his dad to fix the furnace. Dad had just gone upstairs to grab a wrench when there came a deafening boom from the basement. He raced downstairs to find his son blackened by the explosion that had just taken place. Eighty percent of Charles' body is now covered in burns. There is a small chance he will live; however, even if he does, recuperation will be very slow and excruciatingly painful.

Charles would have a considerably better chance of survival if skin cells were readily available to him. His healing process would be much faster because the cells would be right there at the time of the crisis. Right away, doctors could begin to grow skin for Charles, and the likelihood of success would be very high. Many burn victims suffer this sort of pain; however, it could be possible to grow skin cells, or any type of cell for that matter, with stem cells.

Stem cells have the potential to develop into virtually any type of cell in the body. Although it is believed that stem cells can

be gathered from adults and from umbilical cord blood, the most effective type of stem cell comes from the human embryo. Early embryos are balls of cells that have the ability to differentiate into any type of cell, including skin cells for Charles. "Grown in the correct culture medium in the laboratory, stem cells can become a liver cell, a neuron, a muscle cell, or any type of cell" (Mader 324). The term for a fertilized egg is totipotent, meaning "it gives rise to all the different types of cells in the body" ([Stem Cell Information](#), Sec. 2). Cells from embryos can be used to create stem cell "lines," which are "cultures that can be grown indefinitely in the laboratory" ([Stem Cell Information](#), Sec. 5).

The use of stem cells in research is currently very controversial. Opponents of stem cell research feel using embryos is unethical because the embryos have the potential to develop into human beings. These pro-life groups and theologians feel that "life begins at conception" (Bettelheim 1068) and argue that "scientists are destroying life to advance their research" (Bettelheim 1068).

At the opposite side of the spectrum, there is the risk of taking the study too far. Some researchers would like to have unlimited freedom in studying stem cells. However, if stem cell research were unlimit-

ed, the study could easily be abused and advance into human cloning. The moral issues surrounding cloning are numerous, and as Karla Dixon, human biology instructor at DMACC, says, "our ethics have not kept up with technology." Most people are not prepared to deal with the issues surrounding human cloning. In addition, many clones "harbor genetic abnormalities" (Eilperin, Weiss, par. 4), and clones could "suffer psychological harm, in part because they might feel that their lives have already been lived by someone else" (Eilperin, Weiss, par. 4). At the current time, cloning human embryos is a federal crime (Eilperin, Weiss, par. 1).

Many researchers feel President Bush has hindered science in many ways. They feel he "has been spiking science with politics to justify conservative policies in areas such as reproductive rights, embryo research, energy policy, and environmental health" (Weiss, par. 3). The restrictions on embryonic stem cell research at the current time are numerous. The embryo must have been initiated before August 9, 2001, when the President proposed this policy. This means that the stem cell line must have been created before this date. Embryos cannot have the potential to develop into human beings, and the embryo must have been "created for reproductive purposes but no longer needed for them" (Stem Cell Information, Sec. 8). Also, the parents of the embryo must be informed, and they must concede to the donation of the embryo (Stem Cell Information, Sec. 8).

Although the cloning of human beings is unethical, the current criteria for stem cell research are too limited. There are several ways in which the amount of stem cells used for research could be increased. For instance, Karla Dixon thinks if a woman has a spontaneous miscarriage or an abortion, she should have the choice of donating the

cells to science. Opponents of stem cell research fear giving scientists the ability to experiment will increase the amount of abortions. They feel that "because embryonic stem cells are usually extracted from the bodies of aborted fetuses, research in this area could encourage the further killing of unborn babies" (Stock, par. 2). However, the rate of abortion would not increase; the number of cells coming from spontaneous abortions and miscarriages would be sufficient. Many women who lose a child through miscarriage or abortion experience feelings of loss; however, if they were able to donate the cells to medical science, they would at least feel that some good came of the situation. Also, about 16,000 embryos are created in clinics every year, most of which are unsuitable for implantation in the mother's womb. These embryos are usually thrown away (Bettelheim 1070). If these cells are not fit for use, then why couldn't they be donated to science? It seems like a waste to throw away all of these cells when they could be used for research.

Instead of having the current restrictions, federal ethics committees should be created to deal with the issues surrounding stem cell research. These committees would be made up of varied members of the medical community. Having informed opinions on the matter of stem cell research, these committees would be better equipped to deal with the controversy surrounding the issue.

Placing extensive limits on stem cell research restricts the goals of medicine and science. These restrictions "conflict with the ethical goals of medicine--namely healing, prevention of disease, and research" (Bettelheim 1070). The first priority of the doctor is to heal and to prevent disease. Restricting stem cell research is an obstruction of this priority. In order to achieve these goals, doctors must conduct scientific

research. Where would we be without research? Without it, we would not have made all of the extraordinary medical discoveries we have currently made. For instance, the discovery of DNA led to the Human Genome Project. The goal of this project was to map out every gene in the human body; the project was completed in 2003 (*About the*, par. 1). With this information, it could be possible to know ahead of time what diseases an individual may be predisposed to. Without the ability to research, this project would never have been completed, and this information would not be available to us. Other medical discoveries such as vaccinations for smallpox and the measles, diseases that once took the lives of thousands, would not have been possible without research. Scientists have barely begun to break ground in the fight against cancer and AIDS, yet we are leaps and bounds ahead of where we were just a few short years ago. Scientists have been able to stop cancer in its early stages with different therapies; individuals affected by HIV now have the option of taking a pill that prevents the onset of the full-blown disease. Once again, where would we be without research?

Creating ethics committees would enable researchers to study stem cells without all of the current restrictions. They could control how much research could be done and when research on stem cells becomes unethical. With this ability, scientists could make discoveries equal to the Human Genome Project, and other medical breakthroughs, invaluable to the medical field. Without this ability, the entire world could miss out on a tremendous opportunity to cure many horrible afflictions such as Alzheimer's disease, diabetes, heart disease, and even burn victims.

Because they have the potential to differentiate into any type of cell in the human

body, they could be of great value when dealing with degenerative diseases. For example, Alzheimer's disease (AD) is a degenerative disease of the nervous system in which plaques and neurofibrillary tangles develop on the axons of the nerve cells (Mader 242). Patients with AD begin to have loss of memory, and it progresses until they are unable to perform any type of daily activity on their own. Most patients become bedridden and die of some other complication (Mader 242). Alzheimer's disease also has a terrible effect on family members and loved ones of Alzheimer's victims. In addition to confusion and hostility that can affect people with AD, they must watch the memory of their loved one slowly slip away and eventually, they will see them die. Most Alzheimer's patients do not even remember close relatives toward the end of their lives.

It is believed that stem cells could have wonderful benefits for those suffering from Alzheimer's disease. Stem cells could potentially develop into nerve cells, which could be used to counteract the degeneration of the neurons in Alzheimer's patients. Since this disease is the cause of 23,000 deaths in the United States each year (Comer 566), and many people are affected by it, it would be beneficial to the entire country to find a cure for this disease. Pam Kingery, co-worker and friend of mine, has personal experience in dealing with Alzheimer's disease. Her sister, June, was diagnosed with AD a few years ago. She has personally witnessed the degenerative effects of the disease on her sister as well as gone through the trial and frustration of caring for an Alzheimer's patient. Knowing that stem cells pose a potential cure for AD has given hope to many people afflicted by the disease, including Pam and her sister. Pam explains, "June would be willing to try anything to help find a cure for the disease."

This is proof that some people, if given the chance, would be willing to donate to science in a way that would benefit the entire world.

Another common disease that may benefit from the use of stem cells is diabetes. There are two different types of diabetes; type I diabetes occurs when the pancreas does not produce any insulin. Type II diabetes is the most common type; in type II diabetes, the pancreas produces insulin, but liver and muscle cells are unable to take up and utilize the insulin (Mader 281). Sixteen million people in the United States currently are afflicted by diabetes (Mader 281). However, it is believed that stem cells could be used to make insulin-producing cells that would be beneficial to diabetics if introduced into the pancreas (Bettelheim 1072).

The benefits do not stop at Alzheimer's disease and diabetes. Nerve cells could be developed for those suffering from other types of neurological problems such as Parkinson's disease, stroke, and spinal cord injury. Cardiac muscle cells could be made to treat heart attack victims. Liver cells could be developed for cirrhosis of the liver and hepatitis patients. Even skin cells could be developed, so burn victims such as Charles would have a much better chance of surviving (Bettelheim 1072).

Another benefit of stem cell research is scientists could have a greater understanding of how the human body works. With the ability to study these cells may come the ability to understand many complicated body processes that are currently unknown to us. Having a greater understanding of the human body could lead us to a greater understanding of diseases that affect the human body. However, all of this information may be obsolete if more research is not permitted.

Another reason for allowing more stem cell research is the benefits outweigh the

costs. Using stem cells in research should be looked at as saving lives, not destroying them. The embryonic cells in question could not be used for any purpose, other than being thrown away. If they could be used for research, at least the cells would not go to waste. Although some people may feel human life begins at conception, and using embryos is destruction of human life, using them in medicine could save the lives of many people. The surprising fact is we may have come upon the most important medical breakthrough in history, and some people are not willing to give it a chance. The question remains: are we really destroying lives, or are we saving them?

In conclusion, more research must be conducted before scientists can begin to develop treatments for diseases using stem cells. However, in order for this to happen, scientists must be allowed to have more freedom to study the cells. Not allowing research is a violation of the goals of medicine and science. Ethics committees could be an excellent solution to this problem because scientists could have more freedom to research without having unlimited ability to research, which could lead to serious bioethical issues such as human cloning. Finally, because the potential for saving lives is so great, stem cell research is of utmost importance to the medical field and consequently the entire world. Banning the use of stem cells could be detrimental to everyone. Dartmouth ethics expert Green says, "There's a deep ethical need to draw lines, defend human life but not just to be ignorant and resistant to change. If we can't develop a basic understanding of things like stem cells, it will be an impediment to our progress as a society" (Bettelheim 1080-1082).

Works Cited

- About the Human Genome Project. 29 Oct. 2003. Human Genome Program. 16 Apr. 2004
<http://www.ornl.gov/sci/techresources/Human_Genome/project/about.shtml>.
- Bettelheim, Adriel. "Embryo Research." CQ Researcher. Washington D.C.: CQ Press. 1999. 1067-1082.
- Comer, Ronald J. Abnormal Psychology. Fifth ed. New York: Worth, 2004.
- Dixon, Karla. Personal Interview. 7 Apr. 2004.
- Eilperin, Juliet and Rick Weiss. "House Votes to Prohibit All Human Cloning."
The Washington Post 28 Feb. 2003. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Newton, IA. 31 Mar. 2004
<<http://search.epnet.com>>.
- Kingery, Pam. Personal Interview. 15 Apr. 2004.
- Mader, Sylvia S. Human Biology. Eighth ed. New York: McGraw-Hill, 2004.
- Stem Cell Information. 17 Mar. 2004. National Institute of Health. 30 Mar. 2004
<<http://stemcells.nih.gov/stemcells/whatarestemcells.asp>>.
- Stock, Peter. "Curing Without Killing." News magazine 21 Jan. 2002. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, Newton, IA. 30 Mar. 2004 <<http://search.epnet.com>>.
- Weiss, Rick. "Bush Misuses Science, Report Says." The Washington Post 8 Aug. 2003. MasterFILE Premier. EBSCOhost. Des Moines Area Community College

An Unpatriotic Act

By Chris Cole

An essay written in response to the the following prompt: Does the PATRIOT ACT obstruct the liberties of Americans as guaranteed by the Bill of Rights?

When the founding fathers of our country crafted the Bill of Rights in 1791, they knew that the document would face challenges along the way. However, they probably didn't foresee that challenge coming from Congress and ultimately, the government itself. Perhaps the most controversial bill thus far in the 21st century would be the USA PATRIOT Act of 2001. The bill, passed on October 26, 2001, in the wake of the terrorist attacks of 11 September, was supposed to allow law enforcement to fight terrorists more easily. What has happened, however, is evident: Congress created an act that eliminates some of our freedoms as promised in the Bill of Rights and allowed a bill that, at least in part, is unpatriotic to become law.

The phrase *USA PATRIOT Act* is a misnomer. The actual text of the bill is not patriotic, nor does it contain anything that is. In fact, the USA PATRIOT Act is not the title but an acronym for the real title: *Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism*.

Contained in the PATRIOT Act are laws that among other things enhance surveillance and investigation tools for law enforcement and spell out the punishments for terrorists who are caught. The bill itself is over 150 pages long and amends many

parts of Chapter 18 of the *United States Code*. The act, which strengthens the criminal laws against terrorism, defines domestic terrorism as follows: "acts dangerous to human life that are a violation of the criminal laws of the United States or any state...to intimidate or coerce a civilian population; to influence the policy of a government by intimidation or coercion" ("*USA PATRIOT ACT*", 2001).

Advocates of the USA PATRIOT Act, who include President George W. Bush, Attorney General John D. Ashcroft, and CIA Director George E. Tenet plus many others, claim that the PATRIOT act actually protects the rights and freedoms of Americans while giving more power to law enforcement to seek out and prosecute terrorists. The Declaration of Independence expressly mentions certain unalienable rights: namely, life, liberty and the pursuit of happiness. Terrorists seek to destroy those rights, first, by killing Americans (thus eliminating their "life") and using acts of terror to instill fear in the hearts of Americans (thus eliminating their "liberty").

The government's view of the USA PATRIOT Act, as witnessed by the very name "*libeandlibery.gov*," the Department of Justice's Web site defending the act, is that it preserves the life and liberty of Americans. During his testimony before the

U.S. House Judiciary Committee, Attorney General John Ashcroft defended the powers of the USA PATRIOT Act by saying, "It has been the key weapon to protect innocent Americans against the deadly plans of terrorists" (Clark, 2003). Congress itself has retained a modicum of oversight of the USA PATRIOT Act, requiring the Department of Justice to report details of its use of the USA PATRIOT Act twice a year (O'Beirne, 2003). The USA PATRIOT Act gives law enforcement a number of "tools" that were unavailable in the past. Most notably among them are improved communication and information sharing among the various agencies that fight terrorism. It has also allowed the governmental agencies to respond to advances in the technology utilized by most modern terrorist networks. In testimony before the U.S. Senate Judiciary Committee, Assistant Attorney General Christopher A. Wray, told committee members that "We have enjoyed key successes: Since the attacks of September 11th, we have charged 284 defendants as a result of terrorism instigations; to date 152, have been convicted or have pled guilty" ("Protecting", 2003). The war on terror must indeed be won. As quoted by Siobhan Gorman (2003) in the article "National Security: The Ashcroft Doctrine," Attorney General John D. Ashcroft warned federal prosecutors, "Failure risks the security of our nation and the survival of our freedom."

But are we willing to risk our freedoms and rights as Americans for national security? Ever since its conception, the USA PATRIOT Act has drawn criticism from all sides of the political spectrum. For instance, President Bush signed the USA PATRIOT Act into law only a month and a half after the attacks on the World Trade Center and the Pentagon, and many opponents to the act say that it was passed too hurriedly. Moreover, as Talanian (2002) and

many others point out, the act defines the new crime of "domestic terrorism" so broadly that the law can be applied to citizens acting legally to express their dissent.

Contrary to what the Department of Justice says about the USA PATRIOT Act's ability to preserve liberty, the act itself does restrain an American's privacy. The majority of the privacy laws in the U.S. are contained in a three-tiered law known as "Title III" located in the Omnibus Crime Control and Safe Streets Act of 1968. The first tier prohibits law enforcement from eavesdropping on face-to-face conversations. It also prohibits electronic eavesdropping on phone conversations or conversations through the computer. The second tier protects telephone records and e-mail held on a server. The third tier contains laws about the use of government "trap and trace" devices that record the source and destination of calls made to and from a particular phone line. Even before September 11, the last two tiers provided, where necessary, for court orders allowing law enforcement access; what the USA PATRIOT Act does is extend this access to all three levels. For example, law enforcement may now order a trap and trace on electronic forms of communication and get a "one-stop-shop" court order that allows for nationwide authorization and execution of such devices. The act also provides access to stored e-mail and allows for voice mail messages, which are now to be treated as stored e-mail messages (Doyle, 2002).

While the Constitution doesn't explicitly mention the right to privacy, it is still clearly what the framers had in mind when they drafted the 4th amendment, part of the Bill of Rights. This amendment has been impacted the most in our war on terror. The USA PATRIOT Act includes a section on the so-called "sneak and peek" searches that would allow law enforcement agencies to

delay giving notice when they conduct a search. Further, this would conceivably allow members of law enforcement to enter a dwelling without the occupant's knowledge and take pictures or remove physical items without notice as the law before the 11 September terrorist attacks required them to (Hentoff, 2003).

In hearings held to study the effects of laws passed after 11 September, former House Representative Bob Barr told the Senate Judiciary Committee: "By lessening the burden on prosecutors seeking to obtain these (sneak and peek) warrants, this giving the executive branch a leg up on the judiciary, the fear especially among conservatives, is that this extraordinary power will become ordinary." Barr also said that these laws weaken the basic principle of checks and balances found in the Constitution ("America", 2003).

It is not, however, just the 4th amendment at stake here. The 1st amendment has taken a severe beating as well. According to section 215 of the USA PATRIOT Act, the FBI director can ask for any "tangible things including books, records, papers, documents and other items for an investigation to protect against international terrorism" ("USA PATRIOT Act", 2001). This section would potentially allow the FBI to look at a person's library record, activities on a public computer terminal and possibly even the person's own medical history and genetic background. Moreover, the section places a gag order on library personnel, denying them the free speech right to inform anyone, including their personal attorney, that the FBI had requested the records (Talanian, 2002). Since the section would allow the FBI to look at a public computer terminal, e-mails and the ideas contained therein would no longer remain private and could ultimately lead to a person's prosecution.

The USA PATRIOT Act is bolstered by President Bush's executive order designating "enemy combatants." Under this order, any such person, whether a U.S. citizen or not, can be placed in military custody until the end of the "war" on terror. They could, therefore, potentially remain in military custody indefinitely, since there is no time-frame on the "war" on terrorism (Talanian, 2002). The Department of Justice defends this order by citing a U.S. Supreme Court case from World War II, *Ex Parte Quirin*. This case allowed the U.S. to try German saboteurs who had landed on U.S. soil as enemy combatants. While in the *Quirin* case, the government was operating with the authorization of the U.S. Congress, President Bush did not seek such authorization when he issued his executive order, effectively negating the Department of Justice's argument (Roth, 2004). This order violates the person's 5th amendment right to a fair and speedy trial and to the due process of law.

There is some hope for opponents of the USA PATRIOT Act, however. This is contained in what is known as the act's "sunset clause." Just as the name suggests, the USA PATRIOT Act's sun will be setting in 2005. In accordance to this clause, Congress will either have to reauthorize the USA PATRIOT Act, or it will die a long-awaited death. There is one small catch to this clause, though: it's only associated with certain parts of the USA PATRIOT Act. Many aspects of the USA PATRIOT Act are now incorporated into the *United States Code*, thus becoming a permanent part of our laws. Still, the clause may give its opponents enough time to garner support for a partial, if not total, repeal of the USA PATRIOT Act.

The USA PATRIOT Act obviously needs some revision as it clearly violates parts of three different amendments. Also,

while the concept of the act is good, the bill itself is a lot different than what anyone, even Congress, expected. Attorney General John Ashcroft told the House Judiciary Committee that the administration “must be vigilant toward short-term gains, which ultimately may cause long-term harm to the spirit of liberty” (Clark, 2003). If this is really the case, and the long-term effects of the USA PATRIOT Act will actually harm our liberties as Americans, then maybe through its attempt at being patriotic, Congress and ultimately, the U.S. government have allowed the terrorists to win their long-term fight.

References

- America after 9/11: Freedom preserved or freedom lost?: Hearings before the Senate Judiciary Committee*, 108th Cong. (2003) (testimony of Bob Barr) Retrieved 19 March, 2004, from: http://judiciary.senate.gov/testimony.com?id=998&wit_id2874
- Clark, D. (2003, 5 June). Ashcroft defends department's PATRIOT act enforcement. *CongressDaily*. Retrieved 19 March, 2004 from: <http://nationaljournal.com> (subscription required for viewing)
- Doyle, C. (2002, April). *The USA PATRIOT act: A sketch*. Retrieved 19 March, 2004, from: <http://www.fas.org/irp/crs/RS21203.pdf>
- Gorman, S. (2002, 21 December). National security: The Ashcroft doctrine. *National Journal*. Retrieved 19 March, 2004 from: <http://nationaljournal.com> (subscription required for viewing)
- Hentoff, N. (2003). *The war on the Bill of Rights*. New York: Seven Stories.
- O'Beirne, K. (2003). Congress's patriotic act: This is a law that defends America and, yes, preserves civil liberties, dammit. *National Review*, 55. Retrieved 23 March, 2004 from LexisNexis Database.
- Protecting our national security from terrorist attacks: A review of criminal terrorism investigations and prosecutions: Hearings before the Senate Judiciary Committee*, 108th Cong. (2003) (testimony of Christopher A. Wray) Retrieved 19 March, 2004 from: http://judiciary.senate.gov/testimony.cfm?id=965&wit_id=2740
- Roth, K. (2004, January/February). The law of war in the war on terror. *Foreign Affairs*, 2-7.
- Talanian, N. (2002). *A guide to provisions of the USA PATRIOT act and federal executive orders that threaten civil liberties*. Retrieved 19 March, 2004 from: <http://www.bordc.org>
- Uniting and strengthening America by providing appropriate tools required to intercept and obstruct terrorism (USA PATRIOT ACT) Act of 2001*, Pub L No. 107-56 (2001). Retrieved 23 March, 2004 from: <http://www.findlaw.com>

Urban Sprawl in Polk County

By Carolyn Engelhardt

An argumentative essay using research as support.

Urban sprawl has sparked state and local debate over land-use policies. Over the last several years, Iowans have increasingly grown concerned about rapid urban growth. Rising concerns include inner-city deterioration, prime farmlands lost to developers, higher taxes, and tax-base erosion. Many farmers and some city officials in the Des Moines inner-city want to stop urban sprawl. They are finding thousands of vacant building lots go undeveloped in downtown Des Moines, while the metro areas rapidly grow over what used to be farmlands outside the city limit. We need to educate families in communities like Ankeny and West Des Moines that city planners need to slow down urban sprawl. The citizens of these communities don't realize what urban sprawl does to our farmers state-wide. For example, when families are buying their lot to build their dream house, those families don't realize that that particular land had been annexed by the City, and the farmer had no choice but to sell the land at whatever price (usually a low price) the city was going to offer. We need to make families aware that urban sprawl is taking our natural resources and prime farmland away from us and the next-generation farmers.

Urbanized portions of Polk County, including Ankeny, are expecting to see rapid

growth continue. This perhaps is because of a trend to move back to the Heartland to raise a family and educate their children in Iowa's schools. Also, living in Ankeny would still give them a small town feeling with many shopping places to choose from, instead of driving to West Des Moines. These are just a few of the positive examples that can come from urban sprawl.

However, urban sprawl has been a sensitive topic for people who oppose it. For example, according to the Commission on Urban Planning, Growth Management of Cities, and Protection of Farmland, "Urban sprawl means low-density development that occurs on the fringe of cities, is poorly managed, consumes land suitable for farming or natural areas, creates dependency upon automobiles and is designed without regards to its surroundings" (qtd. in Howe). Although Ankeny needs to grow, we need city leaders and developers to be concerned that surrounding natural resources and prime farmland are not wasted by urban sprawl.

Sprawl is constantly growing in our area suburbs, including retail sprawl. For example, Target, Wal-Mart, and Home Depot are large superstores that are sprouting up all over central Iowa and closing our small, locally owned businesses daily. The owners just can't compete with these large retail

chains when it comes to price and large quantities. However, what these large retail chains lack is personal service that customers would get from their locally owned hardware or clothing business owner. For example, in a small town in northern Iowa, a local hardware store had closed its door because a larger town, 20 minutes away, had opened a Home Depot where people could drive and get all their tools and home project supplies in one trip. Usually these local owners have committed years of hard work to provide their particular services. As long as city leaders continue to let urban sprawl grow, many specialty stores like this hardware store will continue to close their doors. Unfortunately, many effects are seen countywide concerning urban sprawl. For example, we are currently hearing about the new Jordon Creek Mall going up in Dallas County. What we see happening in West Des Moines with this mall is major highway expansion, tax money going to Dallas County and not Polk County, and perhaps higher crime rates. Although this mall is currently going up, we should still be concerned about Polk County businesses moving into Dallas County. When these Polk County businesses move into the mall, the tax money is shifted from Polk County to Dallas County, and the Polk County schools will lose out on the one-cent sales tax (1000 Friends of Iowa). The one-cent tax has helped many Des Moines schools expand and update their buildings. This is an excellent example of how urban sprawl in one area has adversely affected another area.

Another opponent against urban sprawl is Ed Fallon. I spoke with Mr. Fallon in a personal interview. He gave me examples of the negative impact that urban sprawl has on downtown Des Moines. Fallon states that 80% of Polk County low-income people live in Des Moines. These same low-income families cannot afford to move out of the

City. Thirty-three percent of property owners in Des Moines do not pay taxes. The lack of money from nonpaying property owners will hurt the chances for continuing city and school improvements. Fallon is also the Executive Director of "1000 Friends of Iowa," a non-profit organization that educates citizens of our state about the increasing concern of urban sprawl and how it affects our agriculture, natural resources and how we can revitalize our cities and towns (1000 Friends of Iowa). As a State Representative, Fallon has drafted a bill called the Land-use Planning Bill. This bill has been proposed to the legislature to help slow down urban sprawl and to use land more efficiently. For example, the bill would help fix property rights conflicts. Conflicts include new or expanded highway projects that threaten to displace or cause farmers, country dwellers, or businesses to lose money. When these new highways are put in, the highways cut right through prime farmland, and with these new highways, more retail businesses and more housing developments are built. The houses in these new developments are cookie-cutter homes that look the same with only few changes on the outside to make the exterior of the homes look different from the neighboring homes. These housing developments typically have proposed lakes, larger sewers, and/or more traffic ("Land Use Planning Bill"). Mr. Fallon's proposed bill is an excellent source of information to help educate families that urban sprawl is taking up many precious acres of farmland and natural resources.

Though we have the concerned citizens, farmers and state representatives who are against urban sprawl, we also have the flip-side of urban sprawl, which consists of city officials and planners who are for urban sprawl or what they call urban growth. Their reasoning for urban growth is an opportuni-

ty for more businesses to move in, which would create more tax base money and more employment for local people. Wooded land would offer attractive housing sites. For example, Ankeny prides itself with a strong K-12 education system, which draws many new families to Ankeny. These new families moving into Ankeny creates more housing developments to sprout up and the need for more land to be purchased to help expand with Ankeny's growth (Ankeny Comprehensive Land Use Plan 6). Ankeny city officials anticipate a large growth in the next 20 years. Their forecast of population growth is from 32,000 residents today to 55,000 in 2020 (Lageschulte). Although Ankeny's population is growing, developers need to consider reusing or better using available land rather than annexing additional land that takes away farmland from our generation farmers.

Another concern regarding urban sprawl is rural residents versus the farmers. On one side of the coin, people live in the new developments in rural areas near farms. And on the other side of the coin are the farmers. During fall harvest time, many development dwellers call law enforcement to complain about loud noises and bright lights that come from the farm equipment ("Land Use Planning Bill"). These are just a few examples of how our farmers are losing the battle to urban sprawl. Both sides feel that they have the right to be where they are; however, the farmer was there first and is gradually getting pushed out from his land that may have been passed on generation to generation. Unfortunately, there are no laws to protect these farmers from the housing developments that are closing in on them.

Also, these new developments mean more automobiles are on the roads traveling at a high rate of speed down rural roads and causing severe accidents with injuries to

farmers transporting their crops in wagons. These same people who are speeding have admitted that they didn't realize that farm vehicles traveled so slowly. Families who are moving out to developments near farms need to realize that they are moving in and building on precious farmland that had once been farmed for many years by that neighboring farmer who tends to be a nuisance to the new families. The farmer is only trying to do his job the best he can with all the distractions he has to work with around him. Farmers have also lost seed corn contracts because of concerns that seed corn would cross-pollinate with sweet corn planted in home gardens. This could create a huge financial loss to the farmer who depends on seed corn contracts to earn his living. Urban sprawl does create hard times for our farmers who are desperately trying to keep their farms running and perhaps pass down to the next generation ("Land Use Planning Act").

With these new and large developments, the developers are attracting families with low financing and tax abatements if they purchase a home with them. However, these homes are in less-than-attractive neighborhoods where the homes are poorly built and may need to be replaced or updated within 15- 20 years. In many cases, the homeowners who take advantage of tax abatement may never have to pay property taxes on their homes because these abatements are usually for approximately five years. The families move out within that time and possibly move to another development with the same arrangement. Also, with tax abatement, the schools are the ones that are hurt the most because financially they count on families paying property taxes to help with updating their school, new books, and equipment. Developers need to make these new families accountable for property taxes instead of having fancy

financing to draw in large numbers of families to build their homes in their developments. Consequently, with rapid growth and people wanting to move out of the city, these financial incentives are creating more land to be annexed and cheap homes being built, thus causing urban sprawl to spiral out of control with empty and abandoned homes left behind in the city.

Unfortunately, there is no short-term cure to stop urban sprawl. However, there are possible ways to curb it, by building affordable housing, not wasting land, and setting boundaries to preserve natural resources and agriculture land, educating rural residents, and encouraging a more compact development pattern. As more families pour into Polk County urban areas, it is up to the legislators, city officials, and lawmakers to work together to bring unity within their sprawling city or developments.

Works Cited

1000 Friends of Iowa. 24 Mar. 2002. 9 Nov. 2003 <http://www.kfoi.org/kfoi_index.html>.

City of Ankeny. Ankeny Comprehensive Land Use Plan. Ankeny IA: City of Ankeny, 1992.

Fallon, Ed. Personal interview. 24 Oct. 2001.

Howe, Jay. "We ignore smart growth at our peril." Des Moines Register 8 Feb. 2001.

Lageschulte, Melanie. "Ankeny updates plan to expand." Des Moines Register 24 Oct.2003: 1.

"Land Use Planning Bill." 1000 Friends of Iowa. 3 Mar. 2003. 9 Nov. 2003 <http://www.kfoi.org/planning_summary.html>.

Obesity: Just a Problem, or an Epidemic?

By Heather Salz

An essay using the following guidelines: (1) identify a current trend or phenomenon (2) discuss possible causes for the trend/phenomenon (3) anticipate objections to the proposed argument as well as counterargue, and (4) use at least three sources.

According to the Centers for Disease Control and Prevention's National Center for Health Statistics, during 1999 and 2000, about nine million children and adolescents in the U.S. were overweight or obese (qtd. in "Facts About Childhood Obesity and Overweightness"). This calculates out to 15 percent of children and adolescents between the ages of 6 and 19. It is expected that in 2010, about 40 percent of all adult Americans (68 million) will be considered obese. Someone is considered to be obese when he or she weighs more than 30 pounds above his or her ideal weight (depends on height), or if his or her body mass index (a calculation based on height and weight) is more than 25. There are many different ideas about why children and adolescents become obese; however, the main causes are inactivity and unhealthy food choices at home and in schools.

Scientific studies of overweight and obese children and adolescents show that children with overweight parents had lower levels of physical activity and diets that were higher in fat and lower in carbohydrates. Also, fewer than half of the children in elementary school received daily physical education with activities to increase their heart rates and burn calories ("Facts About Childhood Obesity and Overweightness"). For some students, physical education class

is their only means of exercise because there are no other activities that they participate in outside of school. When the only type of exercise that a child gets is in his or her gym class, this creates a substantial increase in the chances that he or she will become overweight or obese in the future.

It is a proven fact that most students, now, rather than the older generations, have parents who will drive them to school, even if they are within walking distances. Also, after they get home from school, they are usually headed straight for the couch with their favorite snack (which usually isn't broccoli or carrot sticks). Dr. Patrick O'Neil, a psychologist and director of the Weight Management Center at the Medical University of South Carolina in Charleston, says, "We also are now using remote controls to change the channels on our television sets, rather than getting up to walk across the room to switch them manually on the television" ("Why We're Losing the War Against Obesity"). The fact is that many modern conveniences are causing an increase of inactivity, especially in children and adolescents.

Michael A. Verespej says in "Don't Blame the Food" that children who are neglected by their parents or not taught good hygiene are seven to ten times more likely to be obese than other children. This conclu-

sion came from a study of nearly 800 students ages nine and ten, by the Copenhagen Health Services in Denmark. The interesting thing about this study, however, is that they went back to see the students ten years after the study was first performed, and 18 percent of the children without solid parental support and 29 percent with poor hygiene were obese compared with just four percent of the other children (Verespej). "This means that parents should look at their own eating habits to see what example they are providing for their children, and if there are ways to improve, they should" ("Parents Take Note").

One success story about dealing with obesity involves 16-year-old Krista Pournaras who began dieting at the tender age of six, but no matter what she tried, she gained up to 30 pounds in just one year. Basically, if there was a diet or a pill out there, Krista tried it. She did it all: low-fat diets, low-carbohydrate diets, Weight Watchers, Jenny Craig, diet pills (both prescription and over-the-counter), bike riding around her neighborhood, and swimming at the local YMCA ("Why We're Losing the War Against Obesity"). A few of the diets caused her to lose a few pounds, but then she would just gain the weight back gain even more. Being a junior in high school is hard, especially when someone is overweight like Krista. At five feet, two-inches tall, she weighed just a little over 245 pounds at the beginning of her junior year. She could not play with her two dogs no matter how much she exercised because she was short of breath. Also, her blood pressure was becoming consistently higher at each doctor visit, and her insulin levels increased putting her at risk for Type 2 Diabetes and Polycystic Ovarian Syndrome, a condition in which a female has heightened levels of testosterone ("Why We're Losing the War Against Obesity").

Eventually, after a long, hard battle, Krista's doctor suggested that she undergo a procedure called bariatric surgery of the stomach. This is when the stomach is reduced by 90 percent (to the size of the top joint of a thumb), and the large intestine is bypassed. Since the surgery, Krista has lost over 100 pounds and feels much better both physically and emotionally ("Why We're Losing the War Against Obesity"). However, this is only one success story out of the hundreds of thousands of people who are overweight in the United States today. A lot of people are not as fortunate as Krista was and are not able to afford the surgery.

The CDC's Health and Nutritional Examiners held a study on obesity a few years ago, which produced results showing that the U.S. population has become much heavier in the past 20 years than ever before (qtd. in "Why We're Losing the War Against Obesity"). For example, in 1980, 46 percent of the adult population was overweight or obese; in 1990, 56 percent (a 10 percent increase) was overweight or obese; in 2000, it went up to 64.5 percent, which is an increase of one percentage point gain a year since 1980. Foreyt says that part of the problem is that Americans eat 200 more calories a day than they did ten years ago (qtd. in "Why We're Losing the War Against Obesity"). One reason for this is because people are eating more fast food. Fast food is considered to be one of the main contributors to obesity because it tends to be high in saturated fat (increases LDL cholesterol, or bad cholesterol), high in sugar, and served in large portions. It also tends to be low in dietary fiber, nutrients, and antioxidants that our body needs to stay healthy ("Why We're Losing the War Against Obesity").

New York and Los Angeles school systems are trying to stop the increase of overweight children by banning fast food and

soft drink vending machines in their schools. In New York, they also went a step further by banning snack-food vending machines as well and reducing the fat content in their school cafeteria food. Los Angeles followed by banning fried chips, candy, and other junk foods on school grounds. Another plan is currently being developed to end contracts with vendors who sell pizzas and burgers at some institutions, which would dramatically decrease the amount of fast food being eaten by children and adolescents. Another culprit is that the average child sees ads for fast food, candy, sugared cereals with cartoon character mascots, and soft drinks every day which makes him or her believe that it is good to eat or drink certain kinds of foods ("Why We're Losing the War Against Obesity").

However, some people in the United States are different and can eat the fast food products and drink regular soft drinks loaded with sugar and not gain a pound. These people are the ones who are gathering together and objecting to what is happening in New York and Los Angeles. They believe that students should have the choice of what goes into their bodies. This is easy for them to say because they aren't the ones having to work out every day, count every calorie, and see little to no results. Some scientists claim that the reason for them not gaining weight is an issue of metabolism and how active a person is. Bariatric surgery seems helpful for obese children like Krista Pournaras, which helps them lose a dramatic amount of weight and better their lives immensely. However, the problem with bariatric surgery is that not many people who are overweight are able to afford the surgery (it has an average cost of \$25,000). So then, they are still stuck, even if surgery is the best option ("Why We're Losing the War Against Obesity"). No matter what happens, or how hard people try to lose weight,

the fact is that obesity kills over 300,000 people a year. That is only 100,000 fewer people than smoking and tobacco products. Scientists suspect that in the near future, obesity will pass smoking in the number of deaths per year ("Why We're Losing the War Against Obesity").

In conclusion, obesity is a very big problem, if not an epidemic, in the United States. Until people realize that they have to start monitoring what their children eat at an early age and teach them correctly, nothing is going to be solved. Physical education classes need to be held daily in elementary schools to keep children active, so they find out what they are good at. Steps have been made in some school systems to start the fight against obesity, but until the fight continues outside of school as well as in school, not a lot of progress is going to be made.

Works Cited

“Facts About Childhood Obesity and Overweightness.” 1999 MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, WDM, IA. 13 Feb. 2004 <<http://search.epnet.com/>>.

“Parents Take Note: Fighting Childhood Obesity Begins at Home.” Better Nutrition. March 2002. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, WDM, IA. 13 Feb. 2004 <http://search.epnet.com>.

Verespej, Michael A. “Don’t Blame the Food.” 5 Dec. 1994. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, WDM, IA. 13 Feb. 2004 <http://search.epnet.com>.

“Why We’re Losing the War Against Obesity.” Dec 2003 – Jan. 2004. MasterFILE Premier. EBSCOhost. Des Moines Area Community College Library, WDM, IA. 13 Feb. 2004 <http://search.epnet.com>.



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