

Recognizing the best of academic writing at Cottey College in Creative Writing, Composition, Fine Arts, Humanities, Science and Math, and Social Science

COTTEY

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About the Contest

The Merry Ann DeVaney Sauls Academic Writing Contest was developed to enhance the prestige of academic writing in the disciplines at Cottey College. All students are invited to submit writing to the contest. Writing done for courses at Cottey is eligible. Finalist judges, typically professors in the relevant disciplines at other colleges and universities, choose the best pieces in each category. The authors are honored at a public ceremony, and their work is published online.

The contest is financed through a generous endowed fund established by Merry Ann DeVaney Sauls, a 1959 Cottey graduate. Ms. Sauls sees writing as fundamentally important to success in any endeavor, and sponsors the writing contest as a way of furthering that vision.

Winning Writing for the 2009 Merry Ann DeVaney Sauls Writing Contest Creative Writing

First Place Shauna de Long Weak Knees

Ms. Janice Marly—aged 33, but just barely—was a very busy woman, and so when her phone rang in the late morning of her day off, she barely hesitated before deciding to let the machine answer it. She was very glad she'd done so when she heard the ensuing message.

"Janice, it's me, Kathy. Please, I—you have to help me, I—I'm so scared, I... I think someone's after me. Please, I don't know what to do. I'm at home, I'm too scared to leave, please come over. I've been trying to get a hold of some of the others, too, but no one's picking up—"

As the speakers went dead, Ms. Marly shook her head irritatedly. That Kathy! There was always something going on, always someone out to get her. Why, just last week, she had been sure that the postman been withholding her mail, and before that that her neighbours were trying to poison her lawn with fake fertilizer. Certainly, neither of those incidents were as extreme as this one, but one never did know with Kathy. And if there really was a murderous fiend on the loose, what did Kathy expect Ms. Marly to do about it? She'd

been born with rather weak knees, and so she could hardly be expected to be of any use in that sort of situation. It was absolutely ridiculous!

Ms. Marly supposed that she should drive over to Kathy's anyway, to help calm her down and keep her company until it was clear that the hedges were assassin-free, but . . . It was her first day off in *months*, and she'd only *just* managed to get everything in order, and surely one of their *other* friends would shoulder the burden—Annie was really much closer to Kathy than Ms. Marly was, after all. And so Ms. Marly deleted the message, returned to her comfortable seat, and settled down, determined to have a wonderfully relaxing afternoon.

The phone didn't ring again until the next day, and this time Ms. Marly picked it up right away, expecting to hear a humourous depiction of the previous day's events from whichever of their circle of friends had gone to stay with Kathy. However, the voice which spoke to her on the phone was not that of an over-excited gossip-monger, and when Ms. Marly heard the word, "police," she almost fainted.

An hour later saw her seated in the police department, explaining to the officers that yes, she *knew of* a woman named Kathy Parks, no, they hadn't been very close, and of course she hadn't heard anything suspicious! Why, she'd barely had the chance to speak to Ms. Parks in weeks—oh heavens no, Ms. Marly hadn't known the poor woman nearly well enough to call her by her given name—very busy season, you know . . .

When she finally limped out of the investigation room—those knees really were a curse—she found her friends sitting out in the lobby, looking shaken. Annie Winters and Grace Peterson leaned toward her almost simultaneously as she sat down next to them, and whispered desperately, "What did you tell them?"

"Oh, there really wasn't anything to tell," she replied carefully. "After all, how could I have known that anything was happening to that poor Kathy Parks? I'm not even certain that I have her phone number."

The two other women nodded, their faces suddenly blank and their bodies much less tense. "Yes," said Annie Winters. "Yes, that's true. I think I couldn't have heard from Kathy—that was her name, wasn't it?—in quite a while. I've been very busy." As she finished speaking, the door opened, admitting another of

their friends, and the two women quickly turned to her with the same question.

Ms. Marly found this behavior to be quite distasteful. True, she herself had lied about the phone call, but these two women had really been much closer to the poor deceased Kathy Parks than she had—and her knees certainly wouldn't have allowed her to make the trip in any case. Of course, she knew why they were worried. Those unanswered phone calls could incriminate all of them, especially if the questioned woman had the foolishness to mention the, "I've been trying to get a hold of some of the others," bit. After all, what kind of people would ignore a friend in need? Ones who were in on the murder, perhaps?

Ms. Marly couldn't help but be a little angry at the other three women (it seemed that the newcomer had conveniently forgotten to mention the phone call as well). Because while *she* had a perfectly legitimate reason for not going—she really hadn't known Ms. Parks very well at all, and she had her knees to consider—*these* women had no feasible excuses at all, and they had known Ms. Parks *much* better than Ms. Marly had.

Hmph. Friends indeed.

By the time they were all released, Ms.

Marly was exhausted, and it had turned out
that Kathy Parks hadn't thought to call any

of her friends before the murder—in fact, it seemed that Ms. Kathy Parks didn't really have any friends at all, just a lot of barely-known acquaintances. Ms. Marly was disgusted.

The funeral was fairly large, considering how many friends Ms. Parks didn't have. Ms. Marly adjusted her stylish black hat and stared around at the gathering, wondering who had received the phone call and who hadn't. Could someone here be the murderer? It had clearly been a murder, the detectives had said, but there had still been no clue as to who had committed the crime. It could have been anyone. Even one of Ms. Parks's "friends."

The thought made Ms. Marly ill in her stomach, and the feeling didn't leave her, even as she arrived back at her apartment. She collapsed on her couch, and as she lay there, remembering Ms. Parks—the little she'd known of her, at least—she felt a fury building up within her, a fury which she directed at the world. A woman had been murdered, her friends hardly cared, and the police couldn't be bothered to find out what had happened.

'I'll do it,' she thought. 'I'll find out who killed that poor Kathy Parks, and I'll make sure that they're properly prosecuted.'

Her search began early the next morning, and continued on through the next few days without any progress except to drain away her carefully compiled sick days. She learned from the police that the weapon used had been a gun, but they weren't able to trace the bullets. The murder had been committed sometime around noon, which seemed to be an odd time for such a thing to occur, but it seemed as though all of her neighbours had been gone at the time (now that's suspicious!) and hadn't heard the shot. The police had been called by Ms. Parks at 11:52 A.M., ('Over an hour after she called me,' thought Ms. Marly), and had arrived at 12:04 P.M. to find the door wide open and the site vacant except for the body.

Ms. Marly also knew, from her own experience, that Ms. Parks's phone was a very old model which didn't record calls, either sent or received, so her own involvement was probably fairly safe. In addition, she knew that the neighbours to the south of Ms. Parks's house were *always* home on Fridays at noon, because the family ran a day-care at home. So why hadn't they heard the gun fire?

Despite her persistent questioning, the family insisted that they had had the day off and had spent it at the mall in town. Ms. Marly didn't bother to confirm the story with the customers of the daycare; she knew that they would already have exchanged stories with the owners. After all, this could all end up leading back to them. Better to just claim to know

nothing, which, really, was honestly the case.

However, as Ms. Marly was taking her leave of the daycare for the last time, she managed to catch site of an appointment book lying beneath the coffee table. While the owners were distracted by the children, she hastily slipped the small booklet into her purse and left the house, trying not to walk too quickly or look too suspicious. Once she arrived back at her apartment, she carefully studied the pages; as she had suspected, there were no cancelations for the day of the murder—in fact, it looked like a fairly busy day. On every other page, any time a customer canceled, it was carefully recorded in red ink, right down to the time of the call.

Ms. Marly knew that this didn't really make them any more suspicious than she herself, or the other "friends" of Ms. Parks who had failed to come to her aid. It seemed the most likely that the owners of the daycare had been very busy that day, had heard the gunshot and assumed that one of the other neighbours would take care of it—after all, some of the others were much closer to young Kathy, and besides, how can anyone be expected to do anything with all of these children in tow—and then panicked at the police investigation and simply pretended they'd never been there.

That sounded familiar.

The next day, Ms. Marly returned to

stalking the street on which Ms. Parks had lived, and studying the house for signs of forced entry that the police had missed. After all, in the terrified, paranoid state that Ms. Parks had been, she hardly would have been willing to open her front door as the police report seemed to suggest.

Unless it was for someone she knew . . .

As Ms. Marly was engaging in a detailed inspection of the state of one of the windows (perhaps it had been partially opened already, without Ms. Parks's knowledge, and then forced open wider?), the postman came chugging up the road. Ms. Parks had always complained about him—it seemed that he frequently lost mail and was always late in delivering. Suspicious? Yes.

And yet, if he was always late, he could hardly have committed the murder so close to noon (which was his proper delivery time), and according to police records, he came up the street doing his rounds at almost 1 P.M., even later than normal. So no, it couldn't have been him.

To her irritation, he stuffed mail into Ms. Parks's former box before moving on, and she called after him, "Just what do you think you're doing? Aren't you aware that Ms. Parks is . . . has passed on?"

The man turned to face her and said, "'m

doin' my job, lady. Home or not, I d'liver where they tell me to."

That attitude! No wonder Ms. Parks had always been so upset about him. He probably *had* been purposefully withholding mail.

As he continued to walk away, he muttered, "Guess that explains it, though. The lady sure had been gettin' a lota mail lately, but there's almost nothin' there today."

Ms. Marly perked up at that, though she tried to act as nonchalant as possible when she replied with, "Oh? What sort of mail, do you think? Letters?"

"I don' dig through people's mail, lady.

But yeah, letters. No' good ones, though. She
always looked upset when I brought 'em to her."

"To her? You actually carried the mail to her door?"

"Only if there was a package with it, 'n more 'n often there was. That all, lady? I've got a job to do."

Ms. Marly thought privately that he hardly seemed very enthused about returning to it, and it wasn't like he was working very dedicatedly before her interruption, but she reluctantly let him go. He'd probably already told her everything useful he knew, anyway.

So, Ms. Parks had been receiving disturbing letters, had she? And for an extended period of time, too. Had the most recent one

contained a direct threat? Had it foretold her murder? If so, why did she wait so long to tell anyone, or call anyone?

After digging through Ms. Parks's current mail and finding nothing but advertisements and bills, Ms. Marlow headed home, deep in thought. As she reached her apartment, she absent mindedly checked her own mail, remembering that she hadn't done so in several days. When her hand met a solid stack of papers, she froze. She rarely received more mail than the occasional advertisement, but now her mailbox was jammed full with letters?

Her heart stopped, and she hurried into her apartment and locked the door, the bunch of letters clutched tremulously to her chest.

Finally, she gathered her courage and sat down to examine the mail. She found that there were five letters for each of the past four days. The envelopes were white and unmarked—they must not have gone through the postal service, which didn't seem to make sense, but her numbed mind couldn't figure out why. Each of the letters inside were computer-produced, and when she read, "To Ms. Janice Marly," in bold, Times New Roman font at the top of the paper, she collapsed into a dead faint.

Even after she awoke, it was awhile before Ms. Marly was able to calm down

enough to read the letters. When she finally did, she found them to be rather. 'Can't anyone come up with anything original these days?' she thought as she attempted to make herself some coffee. 'These letters can't be serious. It's just some kid playing a prank. There's not really anything to suggest that the letters that postman was talking about even had anything to do with the murder. No, much more likely that it's just a coincidence . . . ' The mug she'd just pulled from the cabinet slid from her clammy hands to the tiled floor and shattered. For a moment, she simply stood and stared at the shards, as though not comprehending what had happened, before leaning against the counter, supporting herself with her hands and wheezing.

Five letters for four days . . . How many letters had Kathy gotten before the murder had occurred? Ms. Marly wished that she'd thought to have asked the postman. She turned to the clock, but it took a moment before she managed to force her eyes to focus on the numbers. 6:30 A.M. . . . She felt panic begin to grow within her, and she quickly shoved it back down and grabbed her phone, dialing the first number that came to mind. No answer. Different number. No answer. She continued until she'd run out of numbers, and then collapsed against the wall.

Of course no one was answering at 6:30 in the morning. It was purely ridiculous

to suppose that anyone would be out of bed at this hour. She bit back a sob and headed for the shower, hoping that it would calm her nerves. It didn't.

When she returned, she cleaned up the broken mug, found a new one, and poured herself a cup of coffee. Her hand was shaking, and scalding liquid splattered across the counter and her arm, burning her skin, but she didn't notice, and simply stood there, staring blindly off into space.

7:30. Still no answers.

8:30. Nothing.

At 10:30, she began leaving messages, and at 11:30, she called the police. She wasn't certain what she said to them, if she even answered all of their questions.

Half an hour later, a knock sounded on the door, and relief flooded her so quickly that her skin tingled and she could barely breathe. Finally! It was Annie, or Grace, or the police, or someone so that she wasn't simply sitting on the floor, waiting.

But when she opened the door, it was the postman from before. She stared at him blankly for a moment, dully noting the gun in his hand.

"Why?" she asked.

"Why not?"

"Someone will hear the gunshot."

"Prob'ly."

"Someone will investigate and see you leave."

He smiled at her, and she realized that he already knew what she had only just been discovering since Kathy Parks's death. No one would come. No one would see. Everyone would just wait for someone else to go look, and so no one would. Had she even given the police the correct address?

Did it matter?

And as she watched the trigger move in slow motion, Ms. Janice Marly, aged 33—but just barely—reflected that she really should have gone to her friend Kathy when she had been asked. She wouldn't have been able to help—weak knees, you see—but at least then she wouldn't have had to die alone.

Second Place

He Kills Me

Sara Prael

He's just lying there; the glow from the television is the only light in the room. He already fell asleep. He always forgets to turn off the TV. I want to go in and put a blanket on him and kiss his forehead and say goodnight. Or I could put the knife in my back pocket to good use. Not tonight though, I'm not ready yet.

I pick up my bag and my cigarette butts to go. I make sure to be quiet, but it doesn't really matter. Everyone's asleep. I wipe away my shoe marks from where I was sitting in the bushes and sneak around to the street behind his house. The street in front is too well lit.

I wonder if I'll ever be ready.

Everything about him is so sweet and kind.

He even bought me a knife just because I mentioned that I wanted one. He doesn't know about the collection of butcher, steak, divers,

and any other type of knives I have stashed under my bed. I just said I wanted a pocket knife, now I have one. I'm saving it for him. I think he'd like the poetry of it.

I'm still hungry. The switchblade I stole from the pawn shop back home is hungry. It's harder to do this here. In such a small town people rarely walk alone on dimly lit streets past midnight. I haven't done this in nearly a month. It's especially hard to make these look non-related. It'd be so much easier back home. A city full of random people, any number of gangs to blame a stabbing on.

It's only two in the morning, someone has to be out. I walk towards the Roadhouse, the only bar in a town of alcoholics. Someone has to be dumb enough to be walking home drunk. There he is, larger than I'd like but I can

take him so long as he doesn't see me first. He's stumbling down the street. He falls over and by the time he's sitting upright he doesn't care enough to stand. Bastard managed to fall right under a street light. If I wait for him to move I could be here hours, the glaring sun rising before I get what I need. I look around to see if anyone is watching. I approach him. It's a risky move, but I've done it before.

With a sweet smile and hand reached toward him I ask if he'd like me to walk him home

"Why don't you sit down here with me?"
He slurs and holds himself up off the ground.

"I've got to get home soon. Don't you know how late it is?" I say with my lips pouted. He, not so subtly looks up my skirt. I don't bother to stop him, it's not like he'll be telling anyone.

"Okay, I guess." He takes my hand and I do my best to pull him up. He puts his arm around me and steadies himself as we start walking. I'm not much help, being nearly a foot shorter and at least hundred pounds lighter. He swings his hand ahead in an effort to show where he lives.

"Don't you wanna come with me though?" I ask as I lead him off the main road onto a darker street. He agrees with a grunt and a hand on my ass.

Where can I get this done? It has to be close; I'll end up carrying him if it's too far away. There, perfect. Dark alleyway behind that restaurant, just in front of the train tracks. The place is never open, but I don't think anyone officially shut it down. I lead him there and when I pull my arm from his side he falls over, so I climb on top.

He's expecting fun, and I never disappoint. He grabs my ass again and I pull the knife from under his hand. He makes a face and says "don't need that." He thinks I just grabbed a condom.

I giggle and smile at him. I spring the blade free down to the side so neither of us can see it. The little light spilling in from a block over glances off it. I wouldn't notice, but he does. His eyes open wide and he starts to move his arms up. This will have to be quick. I stab. Thank god I got the jugular on the first try. I would have slit across, but the few seconds longer could have been dangerous. He bleeds out, his eyes wide open. I close them and kiss his cheek. Satisfied for the night, I wipe the blade on a tissue and throw it in my bag.

"Good night, sweet boy."

"Hey love," he says as I walk towards him. He's smiling and I lean down to give him a kiss. As always his lips tighten to give a fake smooch. I hate it when he does that. He's sitting alone on the smoker's bench outside my dorm. He doesn't smoke, and he doesn't know I still do.

"Come inside. It's cold and I forgot shoes." He smirks at me, his eyes calling me an idiot. I grab his hand and lead him in. We get up the stairs and into my room before either of us say anything else.

"So, did you eat anything today?" he asks, already judging my answer.

"I had an apple for dinner," I lie quietly. I haven't eaten all day. I'm just not very hungry lately, not hungry for food. I would go all the way and say I ate a full dinner, but he wouldn't believe it. At least an apple is something.

"That's not dinner, that's a pre-dinner snack. From now on I'm just always going to bring you something after work. I know you can't turn down a bacon-cheeseburger."

He's not wrong.

"I'm just not that hungry, and I'm not going to eat something just because my schedule says it's dinner time." He smiles and shakes his head. He acts like he's given up, but tomorrow I know he'll show up with burger in hand.

I climb up on my bed and he sits on the chair a few feet away. He never initiates anything, another habit that drives me crazy. I ask him to come up and sit with me.

"I'm so tired if I get up there I'm just going to fall asleep."

I start to come down and sit with him so he gets up and moves onto the bed. He's still sitting a foot away. He barely looks at me and we sit in silence for a minute. I try to list the thing's I've done wrong in my head, trying to figure out what he knows. Nothing. I lean over and kiss him. Three attempts to get a real kiss, all failures. So I get out my laptop to show him a song I just downloaded. It starts to play and he takes the computer off my lap.

"I just want to check something real quick." He brings up the internet and starts looking at new movie releases for the week.

"We should hang out at your place sometime. I mean, I don't even know where you live." I silently add that we have been dating for over a month and we only ever hang out at my place and with my friends and that it makes me feel like I'm some secret lover he's cheating with. I don't share feelings like that though. He mumbles something resembling yea, sure. It won't happen unless I bug him about it, and I hate bugging him about anything. Besides, I know exactly where he lives.

"Hey, Is James in there?" my roommate vells through my door.

"Yea, what's up?" he answers.

"Nothing, just wondered if you guys wanna hang out. I'm totally bored."

"Yea, sure." He yells back through the door. He puts the computer on the bed and goes out into the living room. I sit for a second, he doesn't look back to see if I'm following so I go out after him, ignoring the call from my blades under the bed.

I sit in the chair and he sits on the couch next to my roommate, a few yards away. I damn myself for arranging the furniture this way. What's worse is that he's facing me. I have to cover the disappointment on my face with a fake smile. Fake smile for fake kisses, seems like a good trade to me.

I ask if he's ever going to let me borrow that Buffy comic book.

"Next time I remember to bring it,"
he lies. He only let me borrow the first one
because he said something really mean and felt
guilty. That was the one and only time he ever
tried to kiss me. It was also the only time I ever
turned from him.

I almost want him to mess up again, just so I can feel some semblance of control.

We talk about comics and Batman and how much better he is than Superman. He doesn't agree with me though. "Superman is a boy scout. He never uses his powers for personal gain."

"That is my exact argument for why he sucks in comparison to Batman."

I want to yell at him how much his apathy kills me and why I hate that he won't kiss me and how much it hurts when he makes up excuses to not see me. Instead I yell about Batman.

After an in depth argument and a series of "you two are such dorks" comments from my roommate he says he has to go and stands up.

He holds his hand out to get me off the couch.

"Just a second, I have to get my shoes."

I walk into my room and he follows. I grab him and kiss him until he kisses me back. It seems to take forever, but sweet victory is almost worth it. I put on my shoes and walk him downstairs. A fake kiss goodbye. Once he's out of earshot I whisper, "See you tonight, sweet boy."

I walk back upstairs and bring my laptop into the living room. My roommate asks "Why did he come over?"

"He just wanted to hang out with me." I answer, not mentioning the text message I sent asking him to come.

"Oh. I just figured he came to pick something up. Since he was only here for like fifteen minutes." I lie and say something came up. I didn't even realize how short it had been. I wonder why he came over at all.

I need to distract myself so I look online for the local news. No one has put together the four sweet boys. It looks like they haven't even found the boy from last night. The first one was so messy they'll never think it's related. The second was in another town, so if anything is going to put it all together it's the drunk and horny boy. Soon I'll have an M.O. and maybe a serial killer name, not that it's what I want. I'd much rather be unnoticed, but dead people attract a surprising amount of attention considering how quiet they are.

That night, back in the bushes, I watch him again. As always the lights are off, and the TV is on. His room glows. His dad's car pulls in and I flatten myself to the ground. I knew I should have come later. The headlights from the driveway shine straight onto the bushes, but the leaves at the bottom give extra cover. I thank god it's fall as I straighten myself up, making sure I'm not starting a fire with my cigarette. I can hear his dad yelling at him, but I can't make out the words. He walks to the door and opens it. The lock is stuck so it takes him a minute, all the while his dad banging it down with his fist.

His dad drags him by the arm to the kitchen and I realize the argument is about dishes. His dad picks up a plate and throws it

to the ground. His face turns red and he starts yelling louder after the plate doesn't break but rolls across the room. The boy can't help but smile a little, which makes his dad especially pissed off. I look up at the room above when the light turns on. It's my favorite room, his room. This is the first time I've ever seen it fully lit and I'm absolutely giddy. Then I see his sister looking in his nightstand, riffling through his dresser, and taking boxes down from the top of the closet. I want to run in and stop her. Those are his things; she has no right to look into a part of his life where he hasn't invited her. He's really into fighting with his dad so she has enough time to do some serious damage. I pick up a rock and have to stop myself from throwing it. My hand is practically shaking. I light another cigarette with the end of the last one.

I calm down just in time to throw myself at the ground when his mom drives up. I'm a little slow, but I'm pretty sure she doesn't see me. Still, it was too close. I make up a rule for myself to never come over so early. The sun was barely down, but I was desperate to see him. After today's visit I wanted to lie in his arms and listen to him breathing until it stopped. I know I'm not ready for that though, so I stay in the shadows.

I clean up after myself and leave silently.

I know I had fun last night but my steak knife is starving. I stole it from a restaurant on our first date. He didn't notice that I'd taken it and it fit perfectly into my purse. It was one of the nice pointed ones, rather than the serrated round knives I hate. Now it's hungry.

I see a girl walking with her headphones in. She looks like she's had a bad day and doesn't even look up at me. I wonder if killing a girl would be any different. She's about my age, a little smaller than me and I seriously consider doing it, until I see him. He's walking the opposite direction so I have to turn to follow him. I go over a street and watch him in-between the buildings. We walk at the same pace and he doesn't notice me. He works with my boy; I recognize the uniform he's wearing as a cook's shirt. He smells like my boy from a street away. It's a greasy odor of fries and onion rings I can't resist. I follow him another street and decide that this is the one. If there's anyone that will ready me for taking my boy it's this guy. I stay one street over and continue walking until he stops. This one may require more planning. He walks into what I assume is his house. He turns on all the lights; I can't tell if it's paranoia or something else that compels him. I stop thinking about it and just count myself as lucky. This gives me the perfect view. No one else is in the house, but I don't

know if anyone is coming. I want him now but I stop myself. I walk by and around to the front. There are no streetlamps, but it's far too early to do anything. There aren't any bushes; the tree in back is still full of leaves though. I force myself to walk away. He's not going anywhere and I don't have a car to wait in. It's still too early to climb trees without catching attention. I walk back an hour later, every light still on. It's nearly midnight so I go ahead and climb the tree. It's in the neighbor's yard so he probably won't notice. About an hour later he goes around to every room, turning out every light until he's in his bedroom with only the TV glow. Just like my boy.

I wait. The TV turns off. I wait.

He must be asleep by now, so I walk in the front door. People in small towns rarely lock their doors, although I expected better security considering his issues with light.

Through the front room, up the staircase, down the hall. I stand, knife in hand. I think I'll be ready after this. I'm a little scared, but this is what I want. I slowly turn the doorknob. The boy fell asleep on top of the covers, still in work clothes. I walk towards the bed, my knife slightly ahead of me. It carries me forward despite the fear. He's in a deep sleep and doesn't wake up when I climb on top of him.

My legs straddling his hips. In the dark he even

looks a little like my boy. I shake him awake by the shoulder. I know I should do it while he's asleep, but I can't help myself. He opens his eyes and sees the knife immediately.

"Say you love me." The words slip from my lips without consent.

"What?" his eyes scream with fear and confusion, but his voice is barely a whisper. He has no idea who he is to me, nearly the last step in this game.

"Say you love me." I don't want him to say it. I don't know why I'm asking, but I keep asking.

He realizes I'm serious and slowly says "I love you?" He's placating me.

"Mean it. Love me."

"I...I...I love you." I know it's fear but it's real emotion so I take it.

I smile at him and lower the knife from his face to around his neck. He expects me to say it back, like a crazy person would. He doesn't know me at all.

The throat slits easily and he doesn't fight it much. I stay on top of him for a minute, watching him bleed out. I kiss him softly and close his eyes. "Good night sweet boy" I whisper in his ear.

I walk to the bathroom, wipe my knife off on another tissue and throw both tissue and knife in my bag. I change into another shirt I

carry just in case.

I quietly walk out the front door and head home.

The next morning I wake up and text message him. "When do you get off work?"

He answers a few minutes later. "2...but i dunno if i can hang out today."

I have class at two anyway, but I'd skip it for him. I really hate that I would do that just to see him, especially since I know he would just frustrate me. I tell him I get out of class at four and he doesn't answer.

I'm gross and sweaty after gym class, and that's when he calls. He's already behind the building waiting for me. I let him in, but tell him that I need to shower first. I really want him to at least ask to join me there, but I know he won't, and he doesn't. He's on the phone when I get back. He turns around when I take off my robe to change. I can hear him talking about being outside in a minute. He won't be here much longer, and if he's going to turn from me naked in front of him I don't want him here. As I'm pulling on jeans he turns back to me.

"Sorry, I can't stay. My sister needs me to do something." Ambiguity is his specialty.

As I walk him downstairs I stay a step ahead of him, not letting his eyes meet mine. I look down with my hair in my face. I do my

best to not look at him when he leaves, but he'll know I'm mad if I don't kiss him goodbye.

Another fake kiss and he's gone.

A night of homework ahead of me,
I go back upstairs and straight to my room.
Readings for English, vocab for German, and an essay for history. They'll have to wait. I change into my unnoticeables: jeans, converse, grey shirt, hair pulled back in a low ponytail. No one sees me unless I make a point of letting them. I wipe off my lipstick and unclasp my necklace. I pack my bag with everything I need. Tonight is what I've waited for.

I walk to his house and call him. I can see in his window, but I'm far enough away that he can't see me easily. He answers and I say that I really need him to come over. He says that he's asleep and that it will have to wait until the morning.

I start crying "please, just come over."

"I'm on my way."

He lies in bed another ten minutes.

I would call him again, but there'd be no explanation as to how I know he hasn't left yet.

I see his light turn on and he pulls on a shirt. He's frustrated as he walks out of the house; he sighs and mutters something to himself. I'm disappointed. I figured that he would trust that I wouldn't drag him out of bed in the middle of the night and start crying for nothing. He obviously thinks it isn't that important, but is coming anyway. I follow him to the warehouse. It's on the way to my dorm and he doesn't hear me coming up from behind. I pull the chain around his neck. I find a beautiful irony in my leash freeing me. He passes out quickly. Not dead yet, just unconscious. I drag his body the few feet into the building. I move him onto an upturned table. I go to my bag and take out the belts to tie him down. I want to have fun with this.

From behind I hear "Hello, love."

"What happened?" I'm waking up on something hard. This must be a nightmare. He watches me, standing over me. His eyes are dark, something's different.

"You were out for a while, love." He smiles at me. I try to lean up, but I realize I'm tied - strapped down by my own belts. This was not what I had in mind for tonight.

"What's going on? Why are you doing this?" I use my most innocent voice. It's worked with him before. There's no way he knows about the other boys, and he probably doesn't know about the bushes. I don't think he could know about anything but tonight. Maybe I can talk him out of this. The knife is in his hand, the knife I saved for him. Maybe...maybe I can still talk

him out of this.

"Nice try. I know what you've been doing. I'm actually impressed with your skill. You are very efficient with no research or preparation." He's mocking me.

"What are you talking about?" He can't know about my sweet boys, he doesn't know anything. He thinks that by acting as the punisher I will fall into place and confess my sins. He is wrong.

"Very efficient and very stupid. You have been nearly caught more times than I can count. You take risks, and in our line of work that is not a good thing." He is making no sense. He's confusing me on purpose.

"Our line of work? You're a fry cook and I'm a student. What line of work would you be referring to?" I know that I should really keep quiet, considering my situation. I hate how he finds humor in confusing other people. Being unclear on purpose is not entertaining. I want to say what a jackass he his, but I should stick to the helpless oblivion act.

"Our real work, our art. You're just starting out. You don't understand." I hate it when he talks down to me. "I've been doing this for years and I can help you, if you let me"

"Help me? With what?" I know how he hates when I act innocent and stupid, but it is his turn to get pissed off.

"Don't play dumb with me" He's still calm. This is a different boy than the one I know. This one is in control. He's cold; I think I could like this boy.

He leans over to un-strap me. I rub my wrists and stand up on the table. I walk close to him, inches from his face. He stares into my eyes and doesn't move back.

"So you want to teach me? You want me to be more like you?"

He just smiles at me. I kiss him softly and for once he kisses back without hesitation. His hand on my back pulling me into him, this is definitely a different boy.

"We could....You and I...." I can't put the words together. For once I'm really happy. In just one moment I can see us together. He could be the one that takes me for what I am, who doesn't judge me or care that I want him and don't want to lie about it. I do want him, every part of him. He wants me too. This is the first time I've really seen it in his eyes. I don't think he ever wanted me before this. We are the same. I finally met him.

"You're perfec..."

His eyes are still warm and his smile still sweet as he slips the knife into me.

"No" he says, as if to explain it all He twists the knife and pushes me back.

"No, I'm not."

Winning Writing for the 2009 Merry Ann DeVaney Sauls Writing Contest Composition

First Place Metaphysics and Quantum Mechanics Sara Stone

"...Science works unceasingly on this great columbarium of concepts, the graveyard of perception. It is always building new, higher stories and shoring up, cleaning, and renovating the old cells; above all, it takes pains to fill up this monstrously towering framework and to arrange therein the entire empirical world" (Nietzsche 458). These are the words Nietzsche used in his essay, "On Truth and Lies in a Nonmoral Sense," to explain the problem of scientists. The problem, he says, is that they think they know things, that they think they have an understanding of the truth because they have built so many laws and principles that apparently govern the world. But by documenting the world, scientists only come farther from knowing the truth, the real essence of things, Nietzsche's "thing-in-itself." They know "how things work" but fail to truly explain existence. They are stuck in their ways, in their strict, firm, unvielding knowledge. Or at least, they were. Due to the expansion in ideas related to metaphysics and existentialism, philosophy has taken its toll on science and has led to the creation of a field of known as

Quantum Mechanics. Though this is a science, when one observes quantum mechanics, the lines between physics and philosophy seem to disappear. It is through this field that mankind sees a solution to Nietzsche's dilemma, a form of science that comes closer to analyzing real truth than any area before it.

Nietzsche's problem begins with classic physics and Sir Isaac Newton. Classical, or conventional physics is the science of the physical world, concerned with action and reaction, the movement of three dimensional objects in three dimensional space. Newton's laws, particularly those concerning gravity, were among the first to govern the three dimensional world. Concepts and equations such as momentum, the mass of an object times its velocity or speed (Cooper 71), and work, the force of an object times the distance it moves (Cooper 77), became ideas of truth in the eyes of all who learned them. Everything about Newtonian physics is strictly mathematical. Consider this idea: velocity is distance divided by time, velocity being how quickly an object gets from one location to another, distance

being the measurement of the space between location one and location two and time being the measurement of seconds, minutes or hours of movement. This is a simplified version of one of the many equations of physics, but the principles represented here apply to all equations. Before quantum mechanics, these classical scientists believed they understood location, movement and the passing of time, thus they could represent them with numbers and letters. To them, everything is cause and effect, incredibly practical: "things" fall, "things" move forward in time, "things" are three dimensional, "things" that move keep moving until stopped. The question was never, what are these "things" and do they really exist? Or better yet, do scientists really understand what the "things" are doing?

What is the problem with this kind of thought? Many people may argue that this kind of science is very productive, for it has led to the understanding of the mechanical world, the creation of many new technologies, etc.

It has many practical uses, so in the practical world, classical physics is very helpful and effective. One of the flaws in this defense of classical physics, and of science in general, is not in the specific details of science, but in its overall mindset. Because of the desire to know everything, scientists tend to create in their studies a close minded atmosphere, which can

create not only philosophically negative effects, but also destructive effects (Hawking 15). For example, in biology, the biochemist P.A. Levene created a theory concerning the structure of DNA. His theory was wrong, but because no one in the field bothered to question it or him it was accepted for over ten years (Curtis 284). Levene did make important discoveries on the subject of DNA, but there is no doubt his time in the field would have been better spent if his theory had been questioned, rather than blindly accepted.

Another problem with this science is that it does not change the fact that Nietzsche's problem still exists. Scientists assume that velocity is distance divided by time, without questioning, where is this distance? Where did the moving object come from? Just because the scientists see it move, does it really move? Classical science was often able to predict how the world generally works, and to create technologies accommodating to that world, but Truth itself still remained a mystery. For knowing so much, these classical scientists actually knew very little.

Consider time. Time is involved in many of the equations of classical physics, but its presence hardly raises questions. Sometimes, the scientists may want to find the time variable, sometimes they may want to use an already

measured time to find another variable. In any case, time is a very simple variable. It is a measurement of seconds, minutes, hours, days etc. that have passed. In any given physics text book the letter "t" appears with no questioning of its appearance (Cooper). This is satisfactory for Newton and other classical physicists, but it is clearly not satisfactory for Nietzsche. There are so many questions involving time that scientists overlook. For example, what exactly is time? Is it really just a measurement? If so, why is it valid? Why is it assumed that time "moves forward?" If time isn't three-dimensional, how does it move at all? Is there really a past, other than the one created by our memories? For several centuries these questions escaped scientists.

The questions did not escape another group of thinkers, however, a group that would eventually lead to the revolutionary new ways of science and the creation of quantum mechanics. Some were known as philosophers of metaphysics, others as existentialists, but what this group of thinkers had in common (a group that included such names as Hegel, Kant and Nietzsche) was a desire to know the truth (Craig 338). This truth is not the one commonly known to men and women today, but a deeper truth, one that does not rely on human perception. Of course, the questions

of truth did not begin with these thinkers alone. Metaphysics, or the area of philosophy concerned with the ideas of existence, has been around in the form of questions and curious minds since the dawn of time. The writings of Plato and Aristotle exemplify it, (such as in "The Allegory of the Cave," found in Plato's Republic) and it was pondered over even before their time (Torretti 59). However, it was during the years of Friedrich Nietzsche, the late 19th and early 20th centuries, that this area of philosophy began to hit a peak, began to change perceptions of the world. Nietzsche uprooted traditional metaphysics and took it above and beyond what it was before (Nicholson 345). His curious writings and philosophies overlapped the brilliant minds of scientists like Einstein and Planck, men and women who would take metaphysical ideas, blend them with science and create a reality unlike any had known before.

Metaphysics, and the philosophers who studied it, took science and began to ask what was once thought of as apparently insignificant questions. Many of these questions dealt with the fact that science is only known through human perception. For example, before determining the nature of a thing one must first determine whether or not the thing even exists (Nietzsche 452). Under the eyes of these philosophers there were no "basic concepts," no

"given truths" and absolutely no "constants."

Like Nietzsche explains in his essay on truth and lies, the only knowledge humans have of the truth is what they perceive. This could explain why in classical physics, the main concern in the nature of an object is its effect on other objects. But metaphysics questions that effect and its cause, both the validity of the nature of these objects and their authenticity (Craig 338). The philosophers of metaphysics became great skeptics, particularly in the 20th century, breaking down all rational thought in mankind to create a revolution of open mindedness in the world.

To better understand the philosophies of existence in a less abstract manner, consider, again, time. Metaphysics gave many new perspectives to the concept of time. Science views time as a measurement: a given number of seconds go by. But what are these seconds? They are divisions of minutes, which are divisions of hours, which are divisions of the "time" it takes for the Earth to rotate on its axis. But what is this "time" that it "takes?" Considering Nietzsche's thoughts on language, time is nothing but metaphors, an idea embodied by other ideas. Time passes. Passes by what? Time moves forward. If time isn't three dimensional, how does it move? Many philosophers even questioned times

existence outside of human perception. They believed that time was created by humans as a way of measuring out their lives, of making sense of cause and effect. For example, is the entire concept of "time" based on the fact that humans have memory? If the past does exist, is it in another universe? What about one event happening after another (Sklar 413)? This is the effect metaphysics has had on time, an effect that was evident in the world of science during the 20th century.

Some of these ideas seem outlandish and others simply unnecessary. How could asking these absurd questions ever uproot something as solidly grounded in fact as science? After Nietzsche, in the early 1900s, the world was calling for intellectual revolution and it came in the form of this new, obscure but incredibly open-minded way of thinking. The powerful effect of metaphysics was not seen in the smaller details of science, but in the overall change in the world's environment. Scientists who were born and raised in the era of metaphysics and existentialism found themselves surrounded by a completely different state of mind than those embedded in Newtonian thought (Norris 311). Between this new state of mind and the many new technologies developed in the early 20th century, the scientists that Nietzsche knew and despised

were replaced by radical, but brilliant, seekers of truth. Quantum mechanics is the solution to the problems of conventional physics and the answer to the questions of metaphysics. In the 20th century, the two quarrelling sets of ideas found common ground—science was influenced into the unknown by metaphysics and metaphysical questions were answered by science. This common ground is quantum mechanics

What exactly is quantum mechanics? It is the area of science that deals with the physical world on the smallest scales, beyond microscopic; it is the molecular level. This area of science may seem unimportant at first glance, because of the physical size of the object of its focus. However it is an incredibly important field. One reason for the significance of quantum mechanics is it deals with particles that make up everything in existence (Leggett 111). The particles of concern to quantum physicists make up all the cells of biology, all the weights and the air resistance of classical physics, all the formulas of chemistry. This leads to another reason for quantum mechanics' importance as a science. Not only are the particles of this field the smallest, but they are also the most simplified forms of matter and existence. This is the three dimensional world at its beginning, at its foundation, and when studying the existence

of the three dimensional world, the foundation is a good place to start. A third reason is the fact that quantum mechanics tends to deal with both the smallest and largest scales. The best illustration of this connection is the measurement of the energy in an atom. Atoms are made of electrons spinning around a nucleus, and there is empty space between the electron and the nucleus. In a hydrogen atom (one proton in the nucleus, one electron around it) the empty space holds approximately the same amount of energy as one trillion times all the energy in all the planets and stars surrounding that atom for twenty billion light years (What the Bleep?!). It is inconceivable, but somehow true. These reasons show why quantum mechanics is a valid form of science. There is another important quality of quantum mechanics, though, and this is its role in philosophy. It is a valid form of philosophy because all of those Newtonian laws, all the conventional rules scientists built, the "monstrously towering framework," crumple at the foot of an atom

There was no definite beginning to quantum mechanics, though one of its origins is Einstein's theory of relativity. Among other things, this theory explains an existential problem Nietzsche proposed, in scientific terms. Everything that exists, moves, stays still, grows, shrinks, etc. conceivably does so only relative

to other objects (Hawking 20). For example, I am currently sitting in a chair—the only part of me moving is my hands, relative to the table and floor. However, the chair I am sitting on is in a building that is on a planet that is both rotating on an axis and revolving around a star that is part of a galaxy that is expanding throughout the universe. So, relative to Jupiter or a distant galaxy, my movement consists of much more than my hands. The ever faithful distance divided by time is suddenly not so faithful. This idea embodies Nietzsche's proposal that the existence of everything is only relative to human perception.

Relativity was just the beginning. From this idea came many other questions. For example, if opposites attract, why is a nucleus filled with protons, all of which are positively charged? Is light made of particles or waves? In the attempt to find answers, physicists have only asked more questions. One experiment that illustrates the abstractness of quantum mechanics deals with the behavior of electrons in comparison to physical objects and waves. Imagine two walls, one wall (A) placed in front of the other (B). A slit is cut in wall A and marbles are fired at the wall. Those marbles that pass through wall A hit wall B in the pattern of the slit. When two slits are cut in wall A, a pattern of two slits appears on wall B. Now,

imagine these walls are placed in water, and waves are sent through the two slits. On the far side of wall A, the waves interfere with each other and rather than creating a pattern of two slits, the waves hit wall B in a different pattern, one of many stripes rather than two: an interference pattern. The way to examine the nature of electrons seems clear: send electrons through the two slits and observe their behavior. When this part of the experiment was performed, the electrons, these three dimensional objects, created an interference pattern like waves. This is clearly impossible, so scientists decided to set up a measuring device to observe exactly what electrons did when they came to the two slits (e.g. how the electrons were interfering with themselves). However, once the scientists set up this device the electrons changed their behavior: they created a pattern of two slits (What the Bleep?!). This experiment is a perfect model for all of quantum mechanics: it takes everything that was once considered solid reality and morphs it. It also upholds some of the ideas proposed by metaphysics, particularly what Nietzsche believed about human perception. In this experiment, human perception made all the difference. When the scientists were "looking," nature did one thing, and when they "looked away" it did something else entirely. Suddenly

it seems human perception is not so trustworthy after all.

For a clearer picture, consider, once again, time. In quantum mechanics, time is incredibly different from the time of conventional physics. The first thing that quantum physicists did differently than Newtonian physicists is they looked not only at how to measure and use time, but by examined exactly what time is. In Stephen Hawking's book, A Brief History of Time, he examines the many theories on time. He explains in mathematical terms how time seems to be, not a measurement, but a quality of the universe. It is a fourth dimension, nonlinear, through which the physical world moves (Hawking 23-4). As physicist Fred Alan Wolf puts it, "The first inkling in physics that we got that time ain't what it seemed to be...came with relativity.... God Almighty did not say, 'One second, one second, one second" (What the Bleep?!). Hawking explains this using the term space-time, a replacement for the three dimensional existence. This is only skimming the surface of the quantum qualities of time (Harris 22-5, 537). There are so many inconsistencies that have appeared: for example, the velocity of light should be, like anything else, distance divided by time, relative to any particular object. But it is not.

The rules of relativity seem not to apply to light: time seems not to apply to light and it moves at the same velocity relative to *everything*.

Times involvement with light creates so many paradoxes in quantum mechanics it is hard to believe any answers can be found.

An idea that follows with times importance as a dimension is its ability to be warped. One famous experiment that really uproots conventional ideas of time was performed by Ben Libet, a neurophysiologist at the University of California, San Francisco. When a person feels something, physically, it is because their body has sent an electrical signal to the brain to inform that person that they are feeling something. Once the brain receives the signal, they feel it. Libet performed brain surgery on many patients while they were conscious and could communicate with him (this is a common practice). Libet would stimulate a patient's finger, then he/she would tell Libet when they felt the stimulation. Libet would also stimulate the part of the patient's brain that told the patient his/her finger was being stimulated. The results were shocking: when Libet stimulated the brain directly, there was a pause between the time Libet stimulated the brain and the time the patient felt something in their finger. However, when Libet stimulated the finger, the patient felt it immediately (even

though there should have been a pause while the signal went to the brain). The only way to explain this was to propose a new idea: perhaps, in order to make senses immediate, the brain sends signals *backwards in time* (What the Bleep?!).

Despite the wonders of quantum mechanics, there are still arguments against its importance. For example, how can anyone be sure that these scientists are not just like all the conventional physicists? Though they may come closer to the truth with their more open and liberal kind of science, this doesn't suggest that their minds have been changed or opened. Perhaps relativity is the new gravity—to the world it may seem strange and new, but to the scientists it is still just a meaningless attempt to know everything. However, if this were how the scientists of quantum mechanics felt, they would probably have all moved to another field by now. Consider the electron experiment, where electrons were fired at wall A with the two slits to form an interference pattern on wall B: this experiment has no real solution. The results are still a puzzlement. Every time a new rock is turned in the world of quantum physics it might, if the scientist is lucky, answer one question but it will most certainly ask many more (Norris 342). Like the pre-20th century scientists, these nonconventional physicists have a "great

columbarium," but theirs is not of "concepts."

It is a columbarium of questions, suggestions and philosophies. Only the most open and philosophical of scientists could endure such an answerless and question filled field of science.

Another problem that must be sorted out is whether or not the new physicists have come any closer to truly figuring out The Truth. Quantum Mechanics has not yet been able to explain the questions that Nietzsche asks. However, Nietzsche's own solution is not in the form of a specific answer or the definition of the truth. His interest surrounds not an answer to the questions of truth, but rather a kind of person, intuitive and inventive. These are the kind of people the quantum physicists are, scientists who do not close themselves off to what they see as solid fact. Instead they open themselves to a science of endless possibilities and so few solutions, acting on abstract thoughts and ideas instead of set in stone solutions. These scientists do solve Nietzsche's predicament and the problems brought up in metaphysics, not by giving solutions, but by searching for solutions in such an open way that they may never find them

From the strict mathematical equations of Newton through the radical ideas of Nietzsche to the mind blowing discoveries of Einstein, science has come a long way

towards the search for existence, reality and truth. Quantum mechanics has taken the world, literally, outside the three dimensional box, into a world of infinite ideas and possibilities. Instead of studying a world of human perception, they study a world without. Instead of trying to build the truth, they try to find it outside of themselves.

Works Cited

- Norris, Christopher. "Should Philosophers

 Take Lessons from Quantum Theory?"

 <u>Inquiry</u> (Oct 1999): 311-42.
- Curtis, Helena, N. and Sue Barnes. <u>Biology, Part</u>

 <u>One Biology of Cells</u>. 5th. New York:

 Worth Publishers, Inc., 1968.
- Harris, Randy. Nonclassical Physics, Beyond
 Newton's View. New York: AddisonWesley, 1999.
- What the Bleep?! Down the Rabbit Hole. Dir.

 William Arntz, Besse Chasse. Perf.

 Marlee Matlin, Elaine Hendrix and

 Barry Newman. IDP, 2006.
- Sklar, Lawrence. "Time." <u>Routledge</u>

 <u>Encyclopedia of Philosophy</u>. Ed. Edward

 Craig. New York: Routledge, 1998. 4137.
- Nietzsche, Friedrich. "On Truth and Lies in a

 Nonmoral Sense." Ways of Reading

 an Anthology for Writers. Ed. David

 Bartholomae and Anthony Petrosky. 7th.

- New York: Bedford/St. Martin's, 2005. 451-61.
- Hawking, Stephen W. <u>A Brief History of Time</u>. New York: Bantam Books, 1988.
- Leggett, A.J. <u>The Problems of Physics</u>. Oxford: Oxford University Press, 1987.
- Cooper, Leon N. <u>Physics: Structure and</u>

 <u>Meaning</u>. London: University Press of

 New England, 1968.
- Nicholson, Graemo. "Overcoming of

 Metaphysics." The Encyclopedia of

 Philosophy. Ed. Donald M. Borchert.

 London: Simon & Schuster MacMillan,

 1996. 345-6.
- Craig, Edward. "Metaphysics." <u>Routledge</u>

 <u>Encyclopedia of Philosophy</u>. New York:

 Routledge, 1998. 338-41.
- Torretti, Roberto. "Space." <u>Routledge</u>

 <u>Encyclopedia of Philosophy</u>. New York:

 Routledge, 1998. 59-66.

Second Place

To Go Green or Not to Go Green Amy Polete

To Go Green or Not to Go Green: A

Look at the World of Hospitality

In today's society, phrases such as "economic crisis," "energy conservation," and "going green" are part of the common vernacular. Now that the economy is suffering and global warming and fuel efficiency are on everyone's minds, people everywhere are starting to examine how they live their lives. The economical and environmental concerns are trickling into the hospitality industry and changing the way hotels around the world perform business. Many hoteliers and hotel chains across the world are exploring new ways of running their already existing businesses. Through conservation of resources and electricity, reducing, reusing, and recycling, along with other tips and tricks here and there, hotels can convert their average hotel into a "green" hotel. Others, however, view the label of "green" as an uncertain investment. Although hotel chains may want to do their part to help the environment or fatten their wallets, they demonstrate skepticism towards the idea and do not hop on the bandwagon with their competitors. Green vs. non-green supporters

differ in their views on economic benefits or burdens, customer wants and satisfaction, and thoughts on how "going green" can hinder or help the hotel market competition.

Perhaps the biggest issue driving the "green" hotel movement is the thought of economics and expenses. How much money does it cost to implement green technology into a hotel, and are there benefits to spending that money? Hotels opposed to going green worry about if the money they put into the installation of new technology will pay off in the end. For example, when contemplating whether or not to install motion detectors that operate a hotel rooms' electricity, hotel owners may not think the technology to be a wise investment. Gus Newberry, of Starwood Resorts Worldwide Inc., explains:

The cost [of motion detectors] can range from about \$100 per room if there's a sensor-ready digital thermostat already installed to \$700 per room for a more sophisticated, networked approach to controlling guest room comfort[.] In all cases, a qualified technician must install the sensors or system. (Doran 1)

Businesspersons in the hospitality industry opposed to "going green" may not think it wise to indulge in expensive technology in order to cut back costs here and there. Some hoteliers are skeptical and weary about other investments such as wind and solar power. In an article published in Travel and Leisure, author David Propson reports that "[solar] and wind power are both still rare in the hotel industry" because "in most hotels, these cutting-edge devices have only a limited effect." Why would companies seek to invest in expensive technology only to find it does not produce the desired result? Those opposed to the new technology simply do not see any benefit in handing out the money if they won't see a return.

Those supporting the green way of life in hotels view dollars very differently. Money is conserved with minimal effort in hotels that implement "re-use" cards in their guests' rooms. On the cards, hotels ask guests to reuse towels and sheets by either hanging up towels after use or placing a plastic card on the sheets signifying to the staff that a fresh change is not in order for that day. In doing so, pro-green hotels can save "time, labor and money" as well as gallons of water because staff members are not needing to change, wash, and replace guests' towels and sheets daily (Bryant 1). John Flinn of the San Francisco Chronicle reports that "a typical 100-

room hotel [saves] 72,000 gallons of water and 480 gallons of detergent a year – which translates into an extra \$20,000 of profit." He also continues to explain that guests who reuse sheets and towels save the participating hotel \$6.50 every day in laundering expenses (Flinn 1). Another way hotels in support of "green changes" save gallons of water is through their bathroom toilets. New toilets offer a dual-flush system with two flushing options. Some older toilet models can use as much as 7-gallons per flush, but the dual-flush toilets offers one flush that utilizes only .8-gallons of water, and a second that uses 1.6-gallons (Bernstein 2). Eddie Wilcut, a conservation manager of the San Antonio Water System, informs The New York Times that "since the change [in toilets], water use at the hotel dropped by about a million gallons a month" and he gives credit to the toilets for nearly 60% of the savings. The toilets cost the hotel \$80 a piece to install, but Wen-I Chang, a hotel developer, says the price is minimal compared to the money saved through water conservation (Bernstein 3). Another way hotels supporting the green movement save money is by offering recycling in each room. National Wildlife Magazine reports that by incorporating a recycling program, The Triton hotel staff "has reduced garbage-collection expenditures in the past

decade from \$2,200 a month to \$600" (Stock 1). When it comes to installing technology such as master switches for the room's electricity, Fred A. Bernstein, writer for The New York Times writes, "Wen-I Chang, the developer of the Gaia Merced—a hotel being built in central California with master switches—estimated the price of installing them at about \$300 a room, or less than one-quart of 1 percent of the cost of construction." Most hotel managements would not bat an eye at such a small percentage of cost that could ultimately save the company money; therefore, they incorporate the technology into their hotel in hopes of gaining a fatter end profit. Authors of "Easy Savings" add "the system would pay for itself quickly on new construction" (Ayres & Nalebuff 1). Overall, supporters of converting hotels into green hotels believe "introducing green alternatives at [hotels] can produce noticeable benefits to [the] bottom line and the long-term value of [the] property" (Patel 1).

Another battle advocates and non-advocates fight over is the satisfaction of guests and their wants as a paying customer. Those establishments not implementing green programs do not want to pressure their guests into a "green" routine or give the impression that customer service is not important to the

hotel. "[Embassy Suites] does not want to guilt guests into participating when they are paying for full service," says general manager Bob Barenberg. Melanie Sims adds that "[she] wants the hotel services she pays for" (Bryant 2). John Flinn elaborates saying, "For some of us, the feel of crisp, newly laundered sheets against our skin and a limitless supply of fresh, fluffy towels is part of the joy of staying in a hotel" (Flinn 2). Hotels not using cards suggesting the reuse of towels and sheets do not want to sacrifice the customer's satisfaction and future business in order to save money. "Part of being on the road means the ability to live a little more luxuriously than at home," explains vice president of Starwood Hotels and Resorts, Brian McGuinness. Guests do not want to have to compromise their time away from home by worrying about their efforts to conserve their resources (Bernstein 1). Non-green hotels also consider if their "being green" truly matters to their customers. More often than not, guests make hotel arrangements based on a hotel's location and nightly rate, not its level of conservation efforts (Borcover 1). For this reason, hotels put their marketing budgets towards highlighting "comfort, amenities, and convenience of their properties, not whether they're overtly 'green'" (Nanos 1). After all, Alfred Borcover of the Chicago Tribune finds

that "[some] 59 percent of frequent travelers admit to letting their "green routines" slip when on the road." Study Logic, in a telephone questionnaire of 1,041 frequent travelers, found that 75% of travelers expect to have fresh sheets daily in a hotel, but not at home, and 62% said they use more energy and water while at a hotel because they "don't have to pay for it" (Borcover 3). Therefore, hotels do not want to put forth the effort to improve their green standards because customers do not care about, nor will they practice, a green routine during their stay. According to Janelle Nanos of Intelligent Travel, hotels say, "the customer is concerned with whether the reservation is late or the room is dirty and until [the] customers actively seek out sustainable standards, the costs and benefits don't add up."

Some green hotels find just the opposite.

According to "Green" Hotels Association
president Patricia Griffin, "as many as 90
percent of the guests are now participating in
eco-friendly programs" (Stock 1). Griffin also
notes that although many vacationers may not
want to participate in conservation during their
stays, business personal who travel frequently
often do their part to help the hotel conserve its
resources (Flinn 2). The Holiday Inn utilizes the
"linens and towels" program in its chain. They
report that the program "has grown from 82 to

500 participating inns since October 1995." Additionally, Cara Montries, manager of environmental affairs for the company, revealed that when the chain surveyed its travelers, the results "indicated that 81 percent of the people were more inclined to stay at a place where linen and towel programs were in place" (Wilke 1). The benefit many hotels see in their towel and sheet programs is that guests are not forced to participate (Bryant 2). Hanging up the towel or reusing the sheets is a simple, voluntary process that guests can practice during their stay if they feel inclined. However, if guests do want to take advantage of the hotel's services, they are more than welcome to request new products daily.

Another factor in the "green" debate involves competition in the hotel market. Those not incorporating green methods into their hotel are not necessarily opposed to the idea altogether, they just do not want to take the risk alone. Bob Barenberg, an Embassy Suites general manager, says, "[we're not ready to take the plunge yet [...] we'll wait for the rest of the pack." El-Kammash of the Surfrider Foundation hopes that larger hotel corporations will start green programs so the idea can gain more popularity among customers (Bryant 2). The thought of making mandatory conservation standards for

all hotels was tossed around, but later rejected by a panel at a "Sustainability in the Hospitality Industry" conference because panelists did not want to even the playing field by making all hotels alike (Nanos 1).

Some hotels see going green as a positive impact on competition. Hotels feel if they incorporate new, environmentally friendly methods that they can "one-up" their rival companies. Alfred Borcover believes that eventually, the entire hotel industry will have to implement green programs in order to keep up with the competition of the market. Because some hotels are jumping on the "green" bandwagon before their fellow hotel companies, their business can reap more benefits. By using energy-saving technology, hotels such as Marriott's green-certified hotel use 30% less electricity than non-green hotels. If Marriott charges rates comparable to its non-green competitors, it can gain excess profit by pocketing the money that would normally pay a higher electric bill (DeLollis 2). Company's incomes are what set them apart from one another; so having a more profitable bottom line puts a hotel at the head of the competitive pack.

The hospitality industry strives to win customers over through positive interactions and experiences. Therefore, hoteliers must closely examine the pros and cons of the up and coming

world of "green" and whether or not they want to implement programs into hotels nationwide. Both sides of the argument have valid reasoning and opinions, and hotel businesspersons must keep in mind the variety of opinions held by their customers. What one guest appreciates in a hotel may not reflect the opinion of the next, so hotel management should explore all options available. The market these days offers so many different options that each hotel can make their establishment a unique hospitality experience for each guest.

Works Cited

Ayres, Ian, and Barry Nalebuff.. "EASY

SAVINGS." Forbes 178.4 (04 Sep. 2006): 146-146. Academic Search Premier. EBSCO. Blanche Skiff Ross Mem. Lib., Nevada, MO. 18 Oct. 2008 http://search.ebscohost.com/

login.aspx?direct=true&db=aph&AN=22 050668&site=ehost-live>.

Bernstein, Fred A. New York Times (3 Aug. 2008). Lkd. Commondreams.org, at EnviroLink News and "CHECKING IN: Will Americans Accept Greener Hotel Rooms?" 6 Sept. 2008 http://www.nytimes.com/2008/08/03/realestate/commercial/03sqft.html.

Borcover, Alfred. "Hotels hop on the `green' bandwagon." Chicago Tribune (IL) (20 July 2007). Newspaper Source. EBSCO.
Blanche Skiff Ross Mem. Lib., Nevada, MO. 17 Oct. 2008 http://search.ebscohost.com/ login.aspx?direct=true&db=nfh&AN=2W

login.aspx?direct=true&db=nfh&AN=2W 62W62296583350&site=ehost-live>.

Bryant, Dawn. "Myrtle Beach, S.C.-Area Hotels Urge Patrons to Conserve Water,
Energy." Sun News, The (Myrtle Beach, SC) (n.d.). Newspaper Source. EBSCO.
Blanche Skiff Ross Mem. Lib., Nevada, MO. 18 Oct. 2008 http://search.ebscohost.com/login.aspx?direct=true&db=nfh&AN=2W61760374794&site=ehost-live>.

DeLollis, Barbara. "More hotels using ecofriendly design, construction to go green." USA Today (n.d.). Academic Search Premier. EBSCO. Blanche Skiff Ross Mem. Lib., Nevada, MO. 15 Oct. 2008 http://search.ebscohost.com/

login.aspx?direct=true&db=aph&AN=J0 E330490177507&site=ehost-live>.

Doran, Ryan. "Hotels sense your presence."
Fairfield County Business Journal 47.21 (26
May 2008): 16-16. Regional Business
News. EBSCO. Blanche Skiff Ross Mem.
Lib., Nevada, MO. 18 Oct. 2008 http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=33">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=30">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=30">http://search.ebscohost.com/login.aspx?direct=true&db=bwh&AN=30"

Flinn, John. "Hotels find it's easy being green -- at your expense." San Francisco
Chronicle: sfgate.com 15 Aug. 2004. 15
Oct. 2008 http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2004/08/15/
TRG9L85U1O1.DTL>.

Nanos, Janelle. "Hotel Confidential: Does "Green" Matter to You?" [Weblog entry.]
Intelligent Travel. Type Pad. 19 June 2008.

(http://intelligenttravel.typepad.com/it/2008/06/hotel-conferenc.html) 17 Oct. 2008.

Patel, Ashwin 'Ash'. "Green practices benefit world, bottom line." Hotel & Motel
Management 223.18 (20 Oct. 2008): 1010. MasterFILE Premier. EBSCO. Blanche
Skiff Ross Mem. Lib., Nevada, MO. 16
Oct. 2008 http://search.ebscohost.com/login.aspx?direct=true&db=f5h&AN=346
98326&site=ehost-live>.

Propson, David. "The Ultimate Green Hotel."
Travel and Leisure Aug. 2006. 16 Oct.
2008 http://www.travelandleisure.com/articles/the-ultimate-green-hotel-august-2006>.

Stock, Judith A. "Green Consumer: Keeping the Customer Satisfied." National Wildlife
Magazine Aug/Sep. 2005. 18 Oct. 2008
http://www.nwf.org/nationalwildlife/
article.cfm?issueID=76&articleId=1103>.

Wilke, Anne W. "Green hospitality." E - The Environmental Magazine 7.6 (Nov. 1996):

46. GreenFILE. EBSCO. Blanche Skiff
Ross Mem. Lib., Nevada, MO. 15 Oct.

2008 http://search.ebscohost.com/login.aspx?direct=true&db=8gh&AN=96
12021765&site=ehost-live>.

Winning Writing for the 2009 Merry Ann DeVaney Sauls Writing Contest Fine Arts

First Place Hayao Miyazaki Heather Stark

Hayao Miyazaki is a god among animators. Not only has he produced many amazing films in his lifetime, he has also received numerous awards for them as well, sometimes becoming the first animation ever to do so. How he went from a post WWII Japanese child, to owning his own animation studio, to producing one of the best animated films ever, *Howl's Moving Castle*, is an amazing journey.

Animation is done through a long and difficult process, usually involving hundred of people doing numerous things at once. Miyazaki's animation is done through cell animation, that is, a series of images, each one slightly different than the previous. These are then copied onto celluloid and colored in. When all of the copies are done, they are then photographed and projected on a screen fast enough to give the illusion of motion. However, to get to that point in the process, there are many people who are involved.

First, an idea must be proposed. This is usually done by a Key Animator or Inbetweener. However, their names are not the names that go above the title; it is that of the director. The director is the one who makes all the decisions

and calls all the shots in the movie making process. Miyazaki is both a director and animator, but despite his station, he still has a hand in the production process, sometimes even hand drawing corrections he wants made himself. He truly has a hand in everything that happens.

Once an idea has been proposed and approved, Backers must be found. These are people that are willing to pay the money to have the film produced. These people stand a huge risk of losing a lot of money, and so immediately after securing a Backer, a team must be put together. If a good team is not found in time, then deadlines will not be met and the Backers could stop financing the project.

After the team has been put together, a rough script is formed and then storyboarded. The storyboard sets up the entire movie, scene by scene, with notes for sound effects and dialogue, and any instruction the director wants to add. After the storyboard is approved by the director, it is sent to the Senior Key Animator, who decides what will happen every second on screen, and works intensely with the storyboard artists to develop a basic layout of the movie.

These are then checked by the director before going to the Key Animators, whose job is to draw the key frames: the frames at the beginning and end of every action. The director checks these and the necessary changes are made. Typically this job falls back to the Key Animators, however Miyazaki often makes the changes himself, sometimes redrawing entire scenes if necessary.

The Inbetweeners then get the key frames and are charged with the task of drawing the images between the key frames to connect the actions in a fluid movement. There are generally many Inbetweeners working diligently on this task, but even so, the entire process still stakes a large amount of time. Once this is done however, the images are then transferred to celluloid via machine copiers and projected on a screen, where the resulting images produce the movie.

The entire process is very time consuming and intense. There is always the possibility of something going wrong, deadlines not being met or the Backers pulling out. Even if everything runs smoothly, however, there is still the chance that the general public does not like the resulting movie and the whole thing goes to waste.

Hayao Miyazaki was born on January 5, 1941 in Tokyo, Japan. His mother was a very intellectual woman, but she suffered from a disease known as spinal tuberculosis later on in life. She spent the first few years in and out

of hospitals before finally passing away in 1955, after 9 years of suffering. Many people believe this is what inspired one of his later movies, entitled *My Neighbor Totoro*, as a type of memorial to this ordeal. During WWII, his father, Katsuji Miyazaki, was the director of Miyazaki Airplane, which made rudders for planes, leading to Miyazaki's obsession with airplanes and flying objects in his movies.

WWII has a major impact on his life at a young age. He was three years old when his family was evacuated from their home to a safer district, and it was not until another three years has passed before they were allowed to return again (Master, 26). Despite all of that, however, he still managed to graduate from Gakushuin University in 1963, with a degree in political science and economics (IMDb). However, that did not stop his interest in animation (anime).

Osamu Tezuka was a teenage mangaka (comic artist), who leapt to stardom in 1947 with his new comic, *New Treasure Island*. This comic started a new wave of enthusiasm to run through post war Japan children, who began writing comics at a rapid rate. Tezuka greatly influenced Miyazaki's comic style, and later he claims that when he first started to draw his own manga (comic), "the question of how best to peel away the Tezuka influences... proved an extremely heavy burden" (Master, 28). Tezuka's influence

on the comic industry was so great that Miyzaki was uncomfortable with his own style of drawing until much later in his life.

Miyazaki's interest in animation came from Taiji Yabushita's *Legend of the White Serpent*, which he saw as a senior in high school in 1958. He claims that *Legend* left a very strong impression on his "immature self" and helped him realize the "folly of trying to succeed... by echoing what was fashionable," and decided to draw his true feelings, despite how foolish they may appear (Master, 29). This started him on his path to animation.

Miyazaki started his career in 1963 when he began his work at Toei Dougg Studios. He worked there for 2 years before finally gaining recognition in 1965. He felt that the original ending to Gariba no Uchuu Ryokou (Guliver's Travels Beyond the Moon), a major project that the studio was working on, was lacking, and so he proposed a different ending. The directors were very impressed by the new ending, and used it instead. Since then his career has skyrocketed. He was promoted to Chief Animator, and began his work on Horus: Prince of the Sun with close friend Isao Takahata. In 1971 he moved to A-Pro Studio with Takahata, and then again to Nippon Animation in 1973. While he was there he was heavily involved in the World Masterpiece Theater TV Anime, and by 1978 he had directed

his first TV series, *Mirai Shonen Konan (Conan, the Boy in Future)*, an adaptation of the children's novel <u>The Incredible Tide</u> by Alexander Key. In 1979, Miyazaki moved to Tokyo Movie Shinsa and dabbled in movie making. He made his first movie, entitled *Rupan Sansei: Kariosutoro no Shiro (The Castle of Cagliostro)* while working here. By 1984 he had released another series, *Kaze no Tani no Naushika (Nausicaa of the Valley of Wind)*, based off of the manga he had written two years previous (IMDb.com).

With the success of *Nausicaa* led to the establishment of Ghibli studio, where Miyazaki has remained to write, direct and produce many other films. He has continued to gain recognition through his first three films: *Castle in the Sky* (1986), *Toharino no Totoro* (My Neighbor Totoro, 1988) and *Kiki's Delivery Service* (1989). Although he has great success in his life, Miyazaki does not see himself as a person building an animation empire, but as a person lucky enough to be allowed to make films with his own special touch

In his lifetime, Miyzakai has produced many films, including *Porco Rosso*, *Mononokehime (Princess Mononoke)*, *Spirited Away* and *Hauruno Ugoku Shiro (Howl's Moving Castle)*. His films tend to have many characteristics in common, such as environmental concerns, aircrafts or flying of some kind, the absence of a

traditional villain, and two main characters (one male and one female), who tend to be young and innocent. Miyazaki also allows no more than ten percent of the total footage to be computer animated, believing more in the traditional style of animation.

Porco Rosso was released in 1992 and was Miyazaki's sixth film. It follows the story of a young adult male who was once a sky pirate, but through an unfortunate incident gets transformed into a pig. It is set in a fictional world based loosely off of Italy, and features many aircrafts and sky battles.

Mononoke-hime (Princess Mononoke) was intended to be Miyzaki's last film. This movie was released in 1997, and focuses on the struggle between the guardians of a forest and the humans who wish to steal the resources offered by the forest.

After spending a holiday with a friends daughter, Miyazaki released a movie entitled *Sen to Chihiro no Kanikakushi (Spirited Away)* in 2001. This movie was the story of a girl who is forced to survive in a strange world full of spirits, while at the same time trying to break the curse put on her parents, turning them into pigs.

His latest film is entitled *Hauruno Ugoku Shiro (Howl's Moving Castle)*. It was released in 2004, and is his greatest hit yet. This movie is about a young woman named Sophie,

who is very insecure with herself. She works at a hat shop and feels that she is older than she should be. One day, the Wicked Witch of the Waste shows up and puts a curse on Sophie, making her look as old as she feels. Sophie then runs away and stumbles upon Howl's giant moving castle, where she barges in and bullies the resident fire demon to let her stay the night. From there the story is about her quest to find and break the curse that is on Calcifer, the fire demon and Howl, the owner of the castle and a wizard to boot, as well as deal with the curse placed upon herself. Sophie finds herself slowly starting to fall in love with the enigmatic wizard and through that find the cure to his curse. According to Miyazaki himself, "The movie really is a meditation on what if I had been bolder in 1944. If you opposed the war you would instantly be killed. But on the other hand, would I have joined the military and gone to kill for my country? No, so the question was: What is the alternative? And therefore, you have Howl running, running, running. It's a movie about running away from the reality of participating in a war" (Ludden).

Edward Porter says it perfectly in The Sunday Times when he says, "I, for one, still feel grateful to the film for all its marvelous sights. The mobile fort itself -a conglomeration of gothic towers scuttling on four legs -is just one of many wonders. And, as always in Miyazaki's

work, these inventions are made all the more captivating by the human touch that comes of hand-drawn art bearing a single creator's style" (Porter). According to Pete Doctor, Director of *Monsters, Inc,* "[Howl's Moving Castle] is ... akin to having a particularly vivid dream" (Ludden).

Miyazaki has won many awards for his work in his lifetime. In 1997, *Mononoke-hime* received the Japanese equivalent of the Academy Award for Best Film (IMBd). *Spirited Away* did extremely well in Japan, even breaking the long standing box office record set by *Titanic*. It also received many awards, including Best Picture at the 2001 Japanese Academy Awards, First in Golden bear at the 2002 Berlin Film Festival and in 2002 it received an Academy Award for Best Animated Film, the first animation ever to do so (TV.com). In 2005 he was presented the best award a director can receive, the Lifetime Achievement Award, at the Venice Film Festival.

Hayao Miyazaki can tell stories in a way never told before. He takes great pride in his work, and always does 110%. Though his life was rough, he turned his misfortunes into a morale story to pass on through the ages. His animation is unsurpassed by any others of his time, and he has created many of the best animated films ever. Saying he is a God among animators is not an exaggeration: it is a title he rightfully deserves.

Works Cited

- "Biography for Hayao Miyazaki." The Internet

 Movie Database. IMDb.com, Inc. 29

 Oct 2008 http://www.imdb.com/name/nm0594503/bio>.
- Cavallaro, Oani. The Anime Art of Hayao

 Miyazaki. Jefferson: McFarland &

 Company, Inc, 2006.
- "Hayao Miyazaki: Biography." <u>TV.com</u>. CNET Networks, Inc. 9 Oct 2008 http://www.tv.com/hayao-miyazaki/person/208780/biography.html?tag=biography;more&omact=convert&omclk=biopph>.
- Ludden, Jennifer. "Profile: Hayao Miyazaki's career and his impact on the world of animation." <u>EBSCOhost</u> 12 Jun 2005 03 Nov 2008

 http://search.ebscohost.com/login.aspx
 ?direct=true&db=nfh&AN=6XN200506
- McCarthy, Helen. <u>Hayao Miyazaki Master of</u>

 <u>Japanese Animation</u>. Berkeley: Stone

 Bridge Press, 1999.

122006&site=ehost-live>.

Porter, Edward. "Howl's Moving Castle."

EBSCOhost 25 Sep 2005 16 Oct 2008

http://web.ebscohost.com/ehost/detail
?vid=1&hid=108&sid=026566dd-7286-482d-ab62-790a21846a43%40sessionm
gr103&bdata=JnNpdGU9ZWhvc3QtbG
12ZQ%3d%3d#db=nfh&AN=7EH03797
99908>.

Winning Writing for the 2009 Merry Ann DeVaney Sauls Writing Contest Humanities

First Place A Soldier's Feelings of Separation, Isolation, Etcetera, Etcetera Paige Burton

One characteristic that is true of most, if not all humans is the desire to put one's self in the position of someone who has had vastly different experiences than our own. When we read stories of adventure about pioneers, or tragic tales of people in poverty, part of the fascination comes from imagining ourselves in their place. This is especially true in times of war. We glue our eyes to television sets and ferociously read newspapers, trying to feel what a soldier feels, trying to understand what he or she is going through. Yet, this understanding rarely, if ever, comes. We, the ones who continue to live our comfortable lives at home, feel a need to identify with those who are defending our freedom on a dangerous battlefront, but the simple truth is that we cannot know the horrors of war and the feelings that accompany it unless we physically face the enemy ourselves. This lack of connection between the soldier and those who have never fought is effectively portrayed in E.E. Cummings' poem "[my sweet old etcetera]." In the poem there are five characters, and each character plays an important role in showing

the different attitudes about the war going on around them. Cummings uses these characters along with stylistic writing strategies to show the reactions to war, as well as the disconnect that often exists between the soldier and those not directly involved in the war, specifically the family.

The first person to appear in "[my sweet old etcetera]" is the soldier's aunt, Lucy. When referring to her, Cummings says, "aunt lucy/ during the recent/war could and what/is more did tell you just/what everybody was fighting/ for..." (1271). Aunt Lucy is presented as the wartime chatterbox who considers herself to be the source of information on the war. From the tone Cummings' uses, the reader gets the feeling that Aunt Lucy considers her knowledge of the cause of war a point of pride by her forceful way of informing others. However, we know that Cummings is showing a certain kind of attitude that is prevalent during wartime. Many people think that through the words of politicians, new bulletins, and radio broadcasts they can understand a war and why it is being fought. In these first few lines, Cummings

makes a couple of interesting points about the soldier's aunt. The first is the idea that people outside of the war, those who are at home away from the fighting, can truly understand what everyone is fighting for. Cummings makes the reader ask herself a pivotal question: can we ever really consider ourselves knowledgeable on a topic that we are not directly involved in, that we have no individual experience with. especially war? Besides that, not everyone in the war was fighting for a common cause like most people in the government would have us believe. In a war such as this one, people have diverse convictions and beliefs that cause them to fight for unique reasons. Another interesting aspect is that Aunt Lucy is seen as the source of information, rather than the soldier who has been in the war. Cummings clearly involves him in the poem as the narrator of the events surrounding him, yet he is not the one people come to when they want to know about the war.

The next lines of the poem introduce a new and different character, the soldier's sister, Isabel. Cummings writes: "my sister/isabel created hundreds/(and/hundreds) of socks not to/mention shirts fleaproof earwarmers/etcetera wristers etcetera..." (1271). In this character, Cummings portrays someone who wants to help with the war effort, but the assistance they are providing is, in reality, futile. Of course,

people naturally want to make themselves useful in any way they can during a war, and I don't believe that Cummings is suggesting that Isabel is wrong in what she is doing. However, what he *is* trying to suggest is that Isabel obviously thinks she is contributing to the war effort in a great way, as she is making "hundreds (and hundreds)" of clothing items for the soldiers, but what good is a pair of socks or earwarmers when a soldier is lying in a trench full of dead bodies, or inhaling mustard gas? (Cummings, 1271) Essentially, her efforts are in vain, because these objects cannot protect the soldiers from the cruelty and pain of war. Her goal is to ease their discomfort, but it is on such a superficial level that it almost becomes humorous to think she can do this by knitting hundreds of socks. Through Isabel's character, Cummings causes us to think about our role in a time of war. Like Isabel, we may become all puffed up and think we are contributing to the war effort by giving of our time, but when we step back and look at the larger picture and see what those who are fighting are going through, what we have done seems very trivial, and at times pointless. Once again, Cummings demonstrates a disconnect between what a soldier needs from his family and what he actually receives. As demonstrated later in the poem, the soldier needs understanding and

someone to relate to, but instead he receives "fleaproof earwarmers" (Cummings, 1271).

Next, Cummings shows his readers the attitudes of the soldier's parents. He says: "mother hoped that/i would die etcetera/bravely of course my father used/to become hoarse talking about how it was/a privilege and if only he/could..." (Cummings, 1271). The language Cummings uses in these lines is particularly effective in depicting the parents' attitudes toward war. The soldier's mother hopes that her son will die "bravely," and the father would consider it a "privilege" to be able to fight. (Cummings, 1271) These words are both examples of the glorified yet ironic language used by the pre-war generation. In <u>The Great</u> War and Modern Memory, author Paul Fussell discusses the difference in the language of this pre-war generation, saying, "The language is that which two generations of readers had been accustomed to associate with the quiet action of personal control and Christian self-abnegation ("sacrifice"), as well as with more violent actions of aggression and defense" (Fussell, 21). He goes on to list a "table of equivalents," comparing recent language to pre-war language, for example: "The enemy is the foe...The dead on the battlefield are the fallen...Obedient soldiers are the brave...To die is to perish... Cowardice results in *dishonor*...To win is to

conquer...A soldier is a warrior...One's death is one's *fate*..." (Fussell, 21-22). Although Cummings doesn't use any of these exact words, his language still implies a glorification of war. The mother considers her son's death in battle brave, and the father is almost overcome with emotion thinking of the privilege of fighting in the war. The use of these words not only makes war seem more magnificent than it is, but the language is also ironic. After all, can one really die "bravely?" Can death really be accompanied by something abstract like bravery, cowardice, or honor? And is death every truly considered a privilege? In a world where we will go to any lengths to keep our youth and dodge death, can it be true that the death of a soldier is special right, or is it something we have adapted to convince men and women to fight in horrendous battles at the cost of their lives? I believe that Cummings is making a point of the latter, showing the ironic aspect of this attitude. Through this relationship, we see where the largest disconnect occurs, not only in the relationship between the soldier and his parents, but in the relationship between the generation who never knew war, who thought that war was glorious and honorable, and the generation who experienced war firsthand, who sat in the trenches amidst death and disease, and came home to be told that their experience made

them privileged.

Finally, in the last lines of the poem, we are given insight into the character of the soldier. Of him, Cummings writes: "meanwhile my/self etcetera lay quietly/in the deep mud et/cetera/(dreaming,/et/cetera, of/Your smile/ eyes knees and of your Etcetera)" (1271-72). During everything else that is happening – his aunt providing information on the war, his sister making clothes for the war, his parents singing the praises of war – we find out that the narrator is, "meanwhile...in the deep mud," on the battlefield. (Cummings, 1271) He is the one actually in the war, he is the soldier, yet Cummings creates the sense that everyone simply continues to move around him, and we get feelings of isolation and alienation that is a trademark of literary modernism. There is no understanding, no connection, but rather an emotional separation keeps the soldier farther from his family than the physical separation. According to J.M. Winter, author of The Experience of World War I, many writers of the time were acknowledging the separate identity that soldiers formed when returning from the war. In his book, Winter speaks of the purpose of such writers, stating:

> The first [purpose] was to create a literature of separation and thereby to recall the extent to which the men

in uniform formed what they called a race apart, indelibly imprinted with an experience that those who had not been there could never really know. Of course, on one level this attitude was inevitable; there was a gulf between the experience of men who saw combat and those who did not. But on another level, this viewpoint reiterated much of what soldiers took as the profound ignorance of civilians about the war and the need to fight it to the bitter end. (Winter, 229)

We see this separateness throughout the poem;
Cummings makes a great contrast between
the civilian family at home with their views
on war and the son who has risked his life to
fight a war, only to come home misunderstood
and unable to relate to anyone or anything.
Cummings uses the voice of the soldier in this
poem so we, the readers, can see through his
eyes exactly what Winter speaks of: the irony
of his situation, the ignorance of those around
him, and the immense feeling of isolation that
comes from having an experience that no one
around him will ever be able to identify with.

In addition to the various voices found in the characters of the poem, an important feature of Cummings' poem is his use of the word "etcetera." Cummings utilizes the word "etcetera" throughout the poem, and the word

could be viewed as the element of the poem that plays the most important role in creating the feeling of separateness that Cummings is trying to put in the poem. The definition of "etcetera" is: "And other things of the same class; and so forth" (The American Heritage College Dictionary, 479). Interestingly, the first word of the definition is a connecting word, which is uncommon when defining a word, and the definition gives a sense of ambiguity. Even the sound of the word evokes feelings of continuity, as well as a sort of blabbering on of useless, unimportant information. When we use the word etcetera, it is usually when the information is not important enough to reveal, or those is so much information it would be too timeconsuming to mention. The word also takes the connection away from whatever we were previously talking about. By using "etcetera" in his poem over and over again. Cummings makes use of the feeling of being disconnected it provokes and enhances the feeling of separation in the poem. One place I believe Cummings uses the word most effectively is in the following lines: "...my/mother hoped that/i would die etcetera..." (1271). Obviously, the soldier must feel a great deal of sorrow knowing that his mother wishes him to die in a gruesome battle far from home, and Cummings designedly uses the word "etcetera" to show the soldier's

attempt to detach himself from these painful feelings. Another strong use of the word occurs later in the poem, when Cummings writes of how the soldier "lay quietly/in the deep mud et/ cetera/(dreaming,/et/cetera..." (1271). I believe there is significance in the fact that Cummings splits the word into two separate parts, "et" and "cetera," in these lines. The split seems to symbolize that the soldier has entered a sort of double-consciousness, with one part of him lying in the muddy trench among his fellow soldiers, while the other part of him is dreaming, taking him far away from the grim reality of his life. Cummings not only shows the lack of connection between the soldier and his family throughout the poem with his use of the word "etcetera," but eventually mirrors the separation the soldier feels within himself through the separation of the word.

At first glance, "[my sweet old etcetera]" may seem like just another war poem, but upon closer observation, it is found to be much more. Cummings, through the viewpoints of a soldier and his family as well as the strategic use of the word "etcetera," constructs a poem that instills in its readers a sense of separation, combined with irony, loneliness, and ignorance. We may think that by reading poems like this, we can come to a better understanding of what a soldier feels, or what they go through on the battlefront.

But Cummings' point is that nothing can give us the ability to relate to an experience like war, save fighting in it ourselves. No amount of knowledge of war can make us aware of what it is really like, no amount of socks or shirts can protect a soldier from the emotional and psychological pain he suffers, and no matter how much we support or believe in a cause, until we have sat in the trenches and felt what it is like to play games with death when crossing a minefield, we can't believe in our cause because in reality, we cannot grasp in our minds the implications of the thing we supposedly believe in. Cummings successfully reveals the disconnect between illusion and reality in this poem, and proves to his readers that there are times in history, such as World War I, where bridges cannot be crossed, and where human understanding and connection meet their limits.

Works Cited

- Cummings, E.E. "[my sweet old etcetera]."

 The Heath Anthology of American

 Literature: Volume D, Modern Period

 1910-1945. Ed. Suzanne Phelps Weir. 5th

 ed. Boston: Houghton Mifflin Company,

 2006.
- Fussell, Paul. <u>The Great War and Modern</u>

 <u>Memory</u>. New York: Oxford University

 Press, 1975.
- Winter, J.M. The Experience of World War

 I. New York: Oxford University Press,

 1988.
- The American Heritage College Dictionary. 4th ed. Boston: Houghton Mifflin Company. 2004.

Humanities

Second Place

Magical Realism in *Beloved*Sara Stone

Of all the genres of literature, one that is well known by almost all readers is the ghost story, the tale of living corpses, science fiction, where fantasy meets reality. Like the books of this genre, Beloved, by Toni Morrison, is a tale of a dead child come back to haunt the mother who killed her. But Beloved is not a normal ghost story, not a member of this genre, for the presence of a long dead girl is not used to create a fictional tale, a fantastical world or a scary campfire story. The magical realism in Beloved is different because of its purpose: Morrison uses Beloved as a connection for each character and the reader to the past and as a way to present a story that is so horrifying, it is easier to accept the return of the dead, than the truth. Because of this approach, Morrison has created a novel that takes the reader to a deeper and more intimate level of slavery than any before it (Orr).

The first way Morrison uses magical realism is by taking the spirit of Beloved and making her a connection each character has to the past. Morrison says, "'I wanted it to be our past...which is haunting, and her past, which is haunting—the way memory never really leaves you unless you have gone through it and

confronted it head on" (Rothstein, 195). One important part of the story that gives insight into this purpose is the first scene with Beloved. Morrison interrupts an important moment in the lives of Sethe, Paul D and Denver at the beginning of a chapter to talk about the appearance of Beloved. The sudden shift in the story's focus shows the importance of this new character and foreshadows her intense role in the plot. The first sentence is a short and blunt statement—the tone is straightforward, with a bit of an edge that forces the reader to take it seriously: "A fully dressed woman walked out of the water" (Morrison 60). The only description is that the woman is "fully dressed;" there is nothing else about her appearance, no needless words, not even a hint about "the water" (is it a lake, a river, a well?). The water itself is symbolic: water gives life and on this particular day it is giving life to one who was once dead. It is the sole explanation of the girl's appearance. The use of the word "woman" as opposed to "girl" or "lady" adds to this tone. The purpose here is to introduce the magical part of the plot, the dead child coming back to her mother, in such a way that it is clearly magical, yet still realistic. The fantasy is here

but is introduced in a very serious way so the reader does not focus on how imaginary this moment is, but how significant it is.

Another quote that gives insight to the purpose of magical realism comes when Sethe, Denver, and Paul D all meet Beloved for the first time:

Paul D wondered at the newness of her shoes. Sethe was deeply touched by her sweet name; the remembrance of glittering headstone made her feel especially kindly toward her.

Denver, however, was shaking.

She looked at this sleepy beauty and wanted more. (63)

Morrison gives Paul D's reaction first: he is not concerned so much for the girl herself as he is the things about her, like her shoes. This takes the emphasis off the fact that she is a ghost and makes her, and the story, less magical and more real. The fact that his perspective comes first allows the reader to be well grounded in reality and braced for the women's reactions, which reveal the purpose of the dead girl's appearance. Sethe and Denver show the connection Beloved has with the past. Sethe is "deeply touched by her sweet name," immediately reacting to old memories. This shows that Beloved's presence is not so much about her current existence,

but about the past and Sethe's dwelling there. The sentence holds hidden conflicts, such as "glittering headstone," positive imagery used to describe a negative object. These conflicts show the battles that are to come, the conflict of present and past for both Sethe and Beloved. Denver's reaction is one of immediate love. Just the opposite of Paul D, Denver's thoughts come last and are deeply intense: the sight of the girl sets her trembling. The reader already has an idea of the loneliness Denver has had to endure and the sorrow she felt at the leaving of the baby's ghost when Paul D arrived. Because of this knowledge and Denver's immediate longing for the girl, it is clear that she, too, is connecting Beloved to the past. She uses the word "sleepy beauty," alluding to the fairy tale of sleeping beauty, someone who needed love to save her, someone who needed to be reached. Denver, who subconsciously fears her mother and her mother's past, wants to save this girl. These three reactions together reveal Beloved's significance in the story—she is a way for those who cannot deal with the past to embrace it, whether they want to or not. She is a chance for forgiveness and redemption and a way for the characters and the reader to come to terms with the main theme of the book—the unspeakable horror of slavery and its effect on this particular family.

Magical realism does not only provide a connection to the past, but also makes it possible for the characters and reader to comprehend a realistic story of such great horror that it is nearly impossible to accept. As Walter Clemons says in his criticism of the book, "But with magisterial confidence Morrison has employed a monstrous anecdote as entrance key to the monstrosity of slavery" (262-3). One quote that shows this role of magical realism is the first paragraph of the book. This paragraph of the book deals with the presence of Beloved, not as an adult woman, but as the spirit haunting the house where she was killed: "124 was spiteful. Full of a baby's venom" (4). What is important to notice about these first sentences is the ghost herself is not the first subject mentioned, but the spite. Morrison focuses the reader's attention before anything else on the intense emotions of the story. These sentences are also very short, and straightforward, with smaller, harsher words. In fact, the second is a fragment. This sentence structure creates a tone more personal and conversational than a traditional science fiction novel. It takes the reader away from the ghost story tradition into a new kind of story.

Later in the paragraph, Morrison directly addresses the relationship of the ghost to Sethe's two sons, Howard and Buglar, who both ran away at young ages. This quote addresses the

final acts of the baby's ghost that led each of Sethe's sons to disappear: "...as soon as merely looking in a mirror shattered it (that was the signal for Buglar); as soon as two tiny hand prints appeared in the cake (that was it for Howard). Neither boy waited to see more..." (4). The tone of this quote is relatively calm, almost matter-of-fact. Words like "merely" and "mirror" are softer and slower, not rushing the reader through the events in a panic. This tone allows the reader to see in the minds of the boys: they were not terrified of this haunting, or run off from total fear. Rather they were mature and resolute, intent on doing what they had to do. Their calmness of mind is reflected by the tone of the sentences, their resolution in the way they fled: "at once" (4). Their choice was one moment, definite and final. These reactions are not normal for a sudden ghost appearance. One way the behavior of the sons contributes to the purpose of magical realism is it shows that these boys did not react to the magic in a panicked way: they were not shocked or shaken by the fantasy of the events. Theirs was a more calculated distress. In other words, they did not take the sudden appearance of a ghost as the most crazed and hysterical phenomenon in the world, and so the reader reacts the same. Yes, it is fiction and fantasy but no, it is not terribly unbelievable. Another key aspect to

this quote is the lack of danger. Supernatural events are happening, but knives aren't being thrown at anyone, no one is being injured. In fact, the hands in the cake seem almost playful. Yet the boys won't wait "to see more;" though, if nothing harmful is happening, what more is there to see? Perhaps these actions are symbolic for the boys, reminding them of something they should fear. This quality of the quote is confirmed later in the novel by Denver, when she accepts that the real fear in the boys, their reason for leaving, was not Beloved but Sethe, and her attempt to kill them.

The final quote that addresses the purpose of magical realism in Beloved contains no magic at all, only realism. This quote is a recounting of what schoolteacher and the other white men from the south found in the shed behind Sethe's home, the moment where Beloved's story truly begins, where Sethe commits this horrendous and unbelievable act:

"Inside, two boys bled in the sawdust and dirt at the feet of a nigger woman holding a blood-soaked child to her chest with one hand and an infant by the heels in the other. She did not look at them; she simply swung the baby toward the wall planks...." (175)

In the shed Sethe is holding the child, Beloved, whom she just murdered. This act is the source of Beloved's presence in the house, the "baby's venom" and spite. The tone of this quote is unbearably calm and neutral, completely devoid of emotion. Phrases like "two boys bled in the sawdust," "nigger woman" and "simply swung the baby" minimalize the act, using few adjectives, only blunt statements. This way of recounting the events adds to the effect that it is describing an act so horrifying that no emotion could grasp it. All Morrison can do to present this terrible scene is lay it out, mostly from the white man's point of view. There is no way to truly grasp such a terrible scene. If the reader has trouble understanding the situation it only emphasizes the shock that each character experiences in the wake of this act. That is one of the purposes of Beloved: to make understandable this act that no sane person can rationalize or comprehend. Sethe couldn't deal with her guilt, Denver with her fear, Paul D with his disgust so they put it all in the form of a dead girl come back and tried to cope with the truth through her. Not only is she a connection to the past, but a connection to all the spite within themselves that the memory of *Beloved* brewed.

Unlike the ghosts of science fiction paperbacks, *Beloved* brings to Morrison's novel

more realism than magic. Through this character and her involvement in the lives of the other characters, Morrison has created not a fantasy but an abstract form of truth. Beloved is not just a phenomenon, but an embodiment of horrors that this world cannot, yet *must*, accept. She is a connection to a past that will not die, a slave owner who drove a mother to murder, a woman who chose an unknown afterlife for her daughter before a well known hell. She is a way to accept a reality so horrifying that the only way to tell the story is in an absolutely absurd way; for it is far easier for both the reader and the characters to look into the eyes of the dead, to see baby's handprints in a cake, than it is to look into that shed behind Sethe's house the day she made a choice that would change her family and her history forever.

Works Cited

Morrison, Toni. <u>Beloved</u>. New York: Vintage International, 1987.

Orr, John. "Beloved ': a Great American

Novel – Toni Morrison 's New Book is
a Moving Look at Slavery's Legacy."

Orange County Register 4 Oct. 1987:

L21. Newsbank. 24 Apr. 2008. http://
infoweb.newsbank.com/iw-search/we/

InfoWeb?p_product=NewsBank&p_
theme=aggregated5&p_action=doc&p_
docid=0EAF3C53F50CC2AB&p_
docnum=1&p_queryname=2>

Rothstein, Mervyn. "Toni Morrison, in Her New Novel, Defends Women." <u>Contemporary Literary Criticism</u>. Ed. Christopher Giroux. New York: Gale Research Inc., 1995. 195.

Clemons, Walter. "A Gravestone of Memories."

<u>Contemporary Literary Criticism.</u> Ed.

Christopher Giroux. New York: Gale
Research Inc., 1995. 262-3.

Winning Writing for the 2009 Merry Ann DeVaney Sauls Writing Contest_

Social Science

First Place

The Massacre of Saint Bartholomew's Day: Paris, August 24 1572.
Abigail Knoll

Guillaume

I do not know what is going on, but there is word that many Huguenot leaders including Coligny have been murdered, and the city militia has begun to kill as many Huguenots as they can find. My children ask me what is going on, and I do not want to tell them about all the killing because they might be frightened. As we are strong Catholics though, there is nothing to fear. I am distressed by the killing, but all the graves that will need to be dug will provide a good source of income for me and my family that is much needed right now. I long for a good future for my children, and I welcome any opportunity that I have to provide for my wife and children, even if it is a job such as digging graves. At least I have seen death enough not to fear it the way some people do.

It is too bad that so many people have to die for a war that is between the crown and the nobles, for most of the time we let the Huguenots go about their business and we go about ours. It is true that they have stirred up trouble now and again, but most of

the conflict has been outside of Paris. Many devout Catholics think that this is the will of God, but I do not know. In these troubled times it is no wonder that the massacre spread so quickly. There have been so many battles between the Huguenots and us Catholics, that sometimes it seems the only way to stop the fighting is to remove the Huguenots. But since the leaders have been killed, it seems excessive to kill citizens. It is the leaders who have been organizing the fighting for so long. Hopefully the death of Coligny will discourage the Huguenots from continuing to battle with the crown, and will bring some degree of peace to the kingdom. The edict the Queen issued was met with enthusiasm by many, but the city of Paris has become the scene of a bloodbath. Even those of us who are devoutly Catholic do not wish to see so many innocents murdered; but the will of God be done.

Antoine de Roquefort

We have received word of the murder of Coligny. They have done horrible things to him and to many other leaders, although I

heard that he died bravely. The humiliation inflicted on him, and hence the ridicule directed toward us, is infuriating. I do not know whether I possess more fear or anger at his death. It comes as a shock even though there were earlier attempts on his life. After the Queen's issue the city militia has gone on a killing rampage, and nothing can curb the Catholic's thirst for our blood. The Queen created a skillful trap with all the Huguenot leaders in the area for the marriage between Henry of Navarre and Marguerite de Valois. The nobles and leaders are very much afraid, and we do not even know if there is anyone who is going to attempt to murder the king. We live in fear for our lives now.

The Huguenot generals have been accused of striking out at the Catholics before, but it has only been in retaliation, although the crown would not admit that. We thought that the peace treaty signed at Saint-Germain two years ago, and the synod that met last year with royal permission, were signs of peace between us and the crown, but the Queen is too suspicious and controlling to allow peace. The massacre has been a brutal measure against us, and one that we are not likely to forget. Even if the massacre ends soon, relations have been shattered and it is no longer safe for us to maintain business transactions in the city. The marriage

arrangements in my own family that brought me to this city will have to be postponed, and I fear that anyone related to me will become a target. My faith in our ability to negotiate with the crown has been killed, along with the many innocents of this conflict.

Marcel

The Queen's edict has been carried out successfully, although since there were complications with disposing of Coligny, the Queen has been tied in with the assassination. This is the final blow to the Huguenots after years of fighting. One would think the Huguenots would have seen this coming, what with the previous attempt on Coligny's life, but perhaps the Huguenots want to rouse the indignation of the world by making themselves a target. We have managed to kill most of their leaders, and with the help of the royal army the city militia has been stirred up to murder as many Huguenots as they can find. This was an unexpected move but it aids the Queen and shows that she has the support of the people. The more Huguenots we get rid of, the better. With the leaders disposed of, the Huguenots will no longer be able to create their own armies and strongholds like the one they created at La Rochelle. The Huguenots have been fighting against the Queen for many years now, and there cannot be peace in the kingdom until they are no

longer a threat.

The conflict is said to be one of religion, but it is more about silencing these rebels who would break up the unity of the country. They have been causing disturbances throughout the land, and have appointed their own leaders and generals. The Queen must maintain a united country for her sons and she has been concerned for some time that Coligny has been threatening the crown When he decided to invade the Netherlands with or without royal permission, it created a situation where it was necessary to dispose of him. The continual possibility of war with Spain has made matters worse, and although the Queen has received the blame for this massacre, it is just as much due to the incompetence of her son in his dealings with foreign affairs in these last two years since the treaty of Saint-Germain. I do not wish for the bloodshed that Paris and the rest of the country is experiencing, but I will do whatever it takes to support the Queen. There has been some gain for those of us in the army at the expense of the Huguenot leaders. We have obtained the approval of the Queen, and there has been loot for many of us. I am sure that if the Huguenot leaders were in our position, they would do the same thing.

<u>Abraham</u>

I cannot help but to sympathize with the

Huguenots since I and my people have been exposed to the same kind of treatment. I am very thankful that the popularity of my goods helps to keep my family safe. When my family and I first heard sounds of killing in the streets we were afraid it was an uprising against us Jews, but then we received word of the death of Coligny and other Huguenot leaders. The murder frenzy the city is in is too unbearable to describe. My wife tells me that she keeps thinking of the mothers and children who are being killed. I understand because the thought of losing my own family is unbearable.

The people of ancient Israel, who asked for a king, should have listened to the prophet Samuel when he told them God said that kings would oppress them. I remember from stories passed on from generation to generation, how king Philip IV forced the exile of Jews from France two hundred years ago. I know what it is like to be put in peril by the edict of a monarch, and so I sympathize with the Huguenots, but it is hard to forget that they have persecuted us as the Catholics have. We cannot forget that we were once thrown out of France, and even though that was two hundred years ago, we are still not treated with respect by many. The anti-Jewish riots are a continual source of fear for us.

Perhaps the Huguenots have brought this upon themselves, but it is still hard to

understand the edict of the Queen. These
Catholic people are so zealous, but many of
them are ignorant in what they do. How does it
help one's cause to kill people simply because
they do not agree with you? I do not know the
answer nor, I think, do they. I fear that once the
Catholics have run out of Protestants to kill,
they will turn on the Jews. If that happens in
this time of chaos, not even the popularity of
my goods will keep me and my family safe.
The crown needs to use force to stop the killing
before it spreads any longer, but I wonder if the
Queen is looking at the effects of the killing of
the Huguenot leaders and smiling.

Works Cited

"Jews in the Middle Ages."

Encyclopedia of the Middle Ages. Chicago: Fitzroy, 2000.

Salmon, J. H. M. <u>Society in Crisis:</u>

<u>France in the Sixteenth Century.</u> New York: St.

Martin's Press, 1975.

Second Place

What the Media Is Telling Adolescents About Sex Paige Burton

Imagine two scenes, both of which are not based on specific scenarios, but do occur every day. The first contains a young adolescent girl flipping through the television channels after school. She comes upon a scene that contains a couple engaging in sexual intercourse; the two people are not much older than her, both seem to be receiving sexual gratification from the act, and afterwards, both talk about how great the sex was. This girl, who is in a relationship, starts to seriously think about engaging in intercourse with her boyfriend, even though

no one has ever talked to her about sex. In the second scenario, there is a group of adolescent boys and girls at a school dance. A familiar song comes on that contains lyrics of a sexual nature. Responding to the rhythm and the lyrics, individuals of both sexes imitate sexual behaviors by swinging their hips, touching each other and making grinding motions with their bodies. In both scenarios, we see adolescents being exposed to sex through different forms of media. Also, we have to ask ourselves where, in both scenarios, adolescents are getting their

information about sex, especially if they have never engaged in sexual intercourse, and more importantly, what kind of information are they receiving? Recent research shows a link between the age adolescents become sexually active and how much sex they are exposed to through the media. In this paper, I will discuss how two mediums, television and music, affect adolescent sexuality.

When discussing how television can affect adolescent sexuality, an important factor is how much time adolescents spend watching television. Reportedly, adolescents from the ages of nine to fourteen "spend over 20 percent of waking hours watching television, compared to 9 percent on hobbies and 3.5 percent on homework" (Teen Health and the Media, 2008). Therefore, an average adolescent spends about three hours a day in front of the television, or about half as much time as he or she spends at school. This makes television a powerful influence in their lives, and consequentially makes what they watch equally powerful. According to a study done by the Rand Corporation published in the journal Pediatrics, "Sexual content appears in 64% of all TV programs; those programs with sexual content average 4.4 scenes with sexually related material per hour" (Collins, Elliott, Berry, Kanouse, Kunkel, Hunter & Miu, 2004).

Using this statistic, it can be concluded that if an adolescent watches three hours of television a day, and there are 4.4 scenes containing sexual material for every hour of television, then adolescents are exposed to an average of approximately thirteen instances of sex on television every day, and more often than not, they are exposed to more, not less, than the average. The previously mentioned study done by the Rand Corporation states that "This highdose exposure to portrayals of sex may affect adolescents' developing beliefs about cultural norms. TV may create the illusion that sex is more central to daily life than it truly is and may promote sexual initiation as a result" (Collins et al., 2004). Adolescents forming this belief about sex can lead to them initiating sex at a younger age. Concerning this misinformed belief, AboutKidsHealth news writes the following:

...an adolescent's behaviour is influenced by her belief about the behaviour of peers. For example a teen who believed that most of her friends had already had intercourse would be more likely to initiate sexual activity... studies have shown that television's portrayal of sexual acts makes them appear more widespread than they actually are, and leads to overestimates

of the prevalence of sexual activity in real life. (Sex, TV, and the Young Adolescent, 2005)

Adolescents, seeing an abundance of other young people who look, talk, and dress like them having sex on television causes adolescents to think that this is the "norm," and that they are not normal if they are not doing the same; this is one of the ill-effects that sex on television has on adolescents

What is more astounding, however, is how sex is represented on television. Think back to the first scenario at the beginning of this paper. Anyone who has watched a sex scene on television or in a movie can attest to the fact that in general, the scene almost always shows two people caught up in a moment of intense passion, surrounded by mood music and lighting. There is hardly any time for words, or protection for that matter. And when all is said, or rather done, the couple is in bed, wrapped in each other's arms, with smiles of pure bliss on their faces. Unfortunately, we know that this is what most adolescents are exposed to, and sometimes these television portrayals are what they use to form opinions about sex. The message that television sends to adolescents concerning sex is that having intercourse without protection rarely leads to consequences. According to a study called

"Mass Media Influences on Sexuality" by Jane Brown, "Only about 1 in 10 of the programs on television that include sexual content mentions the possible consequences or the need to use contraceptives or protection against STDs. Unintended pregnancies rarely are shown as the outcome of unprotected sex, and STDs other than HIV/AIDS are almost never discussed" (Brown, 2002). Brown also points out in her study that, according to the Cognitive Social Learning Theory, people are likely to imitate any behavior they observe in which others who engage in that behavior are rewarded or not punished (Brown, 2002). For that reason, we can draw the conclusion that when adolescents see people engaging in sexual intercourse on television over and over with little to no consequences, they develop the idea that this behavior is desirable, and they start wanting to imitate the behavior.

American TV shows and movies seem to do a particularly poor job of representing safe sex behaviors. Whenever condom use is shown on television, it is usually portrayed in a comical sense, in which an awkward situation occurs. Scenes that are portrayed as "sexy" or passionate rarely contain condom use, as it would "ruin the moment." Adolescents compare these two scenarios, and not wanting their sexual experiences to be awkward, conclude

that safe sex practices are not necessary or ideal in having good sexual experiences.

Music is another form of media that adolescents spend a large amount of time with. Music has become even more accessible over the past few years, with the invention of the iPod, which allows people, particularly adolescents and teens, to carry music with them wherever they go. On high school and college campuses, it is becoming rare to see someone without headphones plugged into their ears. A study done by the Rand Corporation on adolescents' exposure to degrading lyrics gives the following statistic: "On average, American youth listen to music from 1.5 to 2.5 hours a day, which does not include the amount of time they are exposed to music via music videos... Sixty percent of teens aged 15 to 18 years report spending>1 hour a day listening to music, and a quarter of them listen in excess of 3 hours per day" (Martino, Berry, Elliott, Strachman, Kanouse & Collins, 2006). Adolescents themselves realize the impact that music has in their lives:

"In one study...high school students were asked to rank music against several other possible sources of moral and social guidance, including parents, teachers, friends, church leaders, and coworkers. Sixteen percent ranked

music among the top three sources of moral guidance, and 24 percent placed music in the top three for information on social interaction" (Roberts, Christenson & Gentile, 2003).

Music obviously plays a large role in forming the identities of today's adolescents.

Knowing that adolescents spend a vast amount of time listening to music, and that a significant amount of these adolescents look to music for guidance concerning their morals and social interactions, an important issue to consider is what kind of messages music is sending and instilling in adolescents. The aforementioned Rand Co. study on lyrics shows that "References to relationships, romance, and sexual behavior are commonplace in the music that is most popular with teens, with ~40% of popular songs in the mid-1990s containing such references...sexual content is much more prevalent in popular music lyrics than in any other medium" (Martino et al., 2006). When analyzing music from sixteen different musical artists that was to be used in their study, the Rand Co. found that "all but 3 artists had 1 or more songs that made reference to sexual behavior...The percentage of songs with sexual lyrics ranged from 0% to 71% across the 16 artists. The percentage of songs that contained sexually degrading lyrics ranged from 0% to

70% across artists" (Martino et al., 2006). What exactly is meant by sexually degrading lyrics? There are many songs that make reference to romance and feelings, but lyrics that are sexually degrading are very different. For example, compare the lyrics of two songs that are popular today. The first set of lyrics is taken from the song "Whatever You Like" by T.I.: "Let me put this big boy in yo life/Thang get so wet, it hit so right/Let me put this big boy in yo life/That's right/Yeah I want'cho body, I need yo body" ("Whatever You Like Song Lyrics," 2008). The second set of lyrics is taken from the song "I'm Only Me When I'm With You" by Taylor Swift: "Trying to figure out what is and isn't true/And I don't try to hide my tears/My secrets or my deepest fears/Through it all nobody gets me like you do" ("I'm Only Me When I'm With You Song Lyrics," 2008). There are obviously big differences in these two sets of lyrics. In the first, there are sexual innuendos, and the man is portrayed as having a "sexual appetite" for the woman's body, which is viewed as an object he is trying to attain. In the second set of lyrics, there is obviously some sort of relationship between the man and the woman where there is trust and communication. These two different types of lyrics send different messages to teens, and with sexually degrading lyrics like those in the first example being found

in about 40% of popular music today, it is no wonder that adolescents have the wrong idea about what sex is, and how members of the opposite sex should be viewed and treated.

The question we must ask ourselves is what affect does sexually degrading lyrics have on adolescents? First, it affects how adolescents view sex in relation to themselves and members of the opposite sex. In a study done on the effects of rap and rock lyrics on adolescent behaviors done by members of the psychology department at West Chester University, it was found that "the two most popular forms of music for adolescents revolve around themes of disrespect and sexual imagery" (King, McConnell, Orr, Schreiber, Chase, Thornberg, 2002). The study done by Rand Co. explores what these types of lyrics include, and how they shape adolescents' views:

... lyrics classified as degrading depicted sexually insatiable men pursuing women valued only as sex objects. These types of portrayals objectify and degrade women in ways that are obvious but do the same to men by depicting them as sex-driven studs whose individual desires are subsumed in their gender role. Adolescents who listen to a lot of music containing these objectifying and limiting characterizations of sexuality

progress more quickly in their sexual behavior... (Martino et al., 2006)

The Rand study also found that adolescents who listen to these types of lyrics tend to become sexually active at an earlier age (Martino et al., 2006). Considering that today's popular music contains a great deal of sexually degrading lyrics that enforce negative gender stereotypes and lead to earlier sexual activity, it becomes a problem that adolescents listen to so much music that sends these messages. Adolescent boys feel pressure to want and pursue sex; if they don't, they aren't "real men." Likewise, adolescent girls are expected to be "sexy," and degrading lyrics teach them that their sexuality is an object that is to be given away, rather than respected.

What can be done about media affecting teen sexuality? The best solution to this problem would be for parents to become the main source of information about sex for their adolescent children. This, however, is a problem in itself, because research shows that many parents are not giving their children adequate information about sex; that, or they are not talking about sex at all. A campaign started in the 1990's called Talking To Kids About Tough Issues conducted a survey to find out how often parents talk to their children about issues concerning sex. The survey found that:

When it comes to such key issues as handling pressure to have sex, becoming sexually active, and preventing pregnancy, most parents of 8- to 12-year-olds say they have not yet had these conversations with their children. By the time their child is a teenager, only 31 percent of parents will have talked about peer pressure to have sex, 30 percent about how to prevent an unwanted pregnancy, and 23 percent about when they might be ready to have a sexual relationship. (The Henry J. Kaiser Family Foundation, 2000)

In an industrialized nation that leads in unintended pregnancies, abortions, and STDs, one in three parents talking to their teens about sex is simply not adequate. People may wonder why, when we have so much sex in the media, do we have so few parents addressing sex? Usually, it is because parents assume their kids aren't having sex, they think that their kids are getting information about sex at school, or they don't feel prepared to talk with their kids about sex. The reality is, however, that parents are usually the best source for information about sex. They are someone their kids can trust, rather than a pamphlet or a visiting health professional at school. In an editorial from the Beaufort Gazette, an important point is made

about where sex education should start: "...it takes much more than educational programs or life lessons from the maternity ward to solve the problem. It takes good parents... Solving teen pregnancy starts at home. It continues with a community. We cannot leave it to social services and schools" (Editorial: Solving Teen Pregnancy, 2007).

Knowing all of these factors, what can we conclude about what the media is telling adolescents about sex? Though the amount of research on how television and music affect adolescents' sexuality is still relatively minimal, there are some points in each study that keep appearing. Research proves over and over that teens exposed to large amounts of sex through the media are more likely to begin sex earlier, and the earlier people have sex, the more likely they are to be unprepared and to not take the appropriate measures to prevent STDs and pregnancy. We also know that television and music are teaching adolescents that sex is practically expected of them, but on the other hand, they are not expected to use protection or think of the consequences of their actions. How sex is represented on television and in music gives adolescents false ideas about expectations surrounding sex, the act of sex itself, and causes adolescents to believe harmful gender stereotypes. With the amount of sex portrayed

on television and in music increasing every day, it is not likely we will see a social revolution in which sex on television and in music suddenly becomes taboo, nor is it likely, in the immediate future anyway, that all sex scenes will include protection and consequences or that all popular music will contain lyrics that are not sexually degrading. However, as we learn more about how the media affects adolescent sexuality. we can take steps to prevent adolescents from being misinformed about sex. Parents can begin useful sex education at home, so their children will be knowledgeable and prepared when met with the false information in the media, and television and music industries can take steps to include more safe sex practices and lyrics that enforce positive aspects of healthy relationships. Little by little, media can change its messages so that adolescents can become better informed about sex, and their attitudes concerning sex can be transformed from negative to positive.

References

Brown, J. (2002, February). Mass Media
Influences on Sexuality. <u>Journal of</u>
Sex Research, 39(1), 42-45. Retrieved
September 29, 2008, from Academic
Search Premier database.

- Collins, R., Elliott, M., Berry, S., Kanouse, D., Kunkel, D., Hunter, S., et al. (2004).

 Watching Sex on Television Predicts

 Adolescent Initiation of Sexual

 Behavior. Pediatrics, 114, (3), 280-289.

 Retrieved September 30, 2008, from

 http://pediatrics.aappublications.org/cgi/
 content/full/114/3/e280
- EDITORIAL: Solving teen pregnancy problem starts at home. (2007, March 21).

 **Beaufort Gazette, The (SC)*, Retrieved November 22, 2008, from Newspaper Source database.
- I'm Only Me When I'm With You Song Lyrics by Taylor Swift. (2008). *SongLyrics*. *com*. Retrieved November 23, 2008 from http://www.songlyrics.com/taylorswift/i-m-only-me-when-i-m-with-you/267960/
- King, S., McConnell, J., Orr, M., Schreiber,
 T., Chase, T., Thornberg, S., et al.
 (2002). Effects of Rap and Heavy Metal
 Music Lyrics on Adolescent Behaviors.
 West Chester University Department
 of Psychology. Retrieved October
 25, 2008 from http://clearinghouse.
 missouriwestern.edu/manuscripts/325.
 asp
- Martino, S., Collins, R., Elliott, M., Strachman, A., Kanouse, D., & Berry, S. (2006).

- Exposure to Degrading Versus

 Nondegrading Music Lyrics and Sexual

 Behavior Among Youth.

 Pediatrics, 118, (2), 430-441. Retrieved

 September 30, 2008, from http://

 pediatrics.aappublications.org/cgi/

 content/full/118/2/e430
- Roberts, D., Christenson, P., & Gentile,
 D. (2003, October 16). The Effects
 of Violent Music on Children and
 Adolescents. Iowa State University
 Department of Psychology. Retrieved
 November 22, 2008 from http://
 www.psychology.iastate.edu/
 ~dgentile/106027_08.pdf
- Sex, TV, and the young adolescent. (2005, June 30). *AboutKidsHealth News*. Retrieved November 22, 2008 from http://www.aboutkidshealth.ca/News/Sex-TV-and-the-young-adolescent.aspx?articleID=80 60&categoryID=news-poh2
- Teen Health and the Media. (2008). Media

 Literacy: Fast Facts. *The Media Project*. Retrieved September 30,

 2008, from http://depts.washington.edu/
 thmedia/view.cgi?section=medialiteracy
 &page=fastfacts
- The Henry J. Kaiser Family Foundation via *PR Newswire*. (2000, April 20). Campaign

 Provides Resources to Help Parents

Begin the Discussion on Tough Issues in Age-Appropriate Way that Incorporates
Own Values. *Kid Source Online*.
Retrieved November 23, 2008 from
http://www.kidsource.com/kidsource/
content2/news2/talking.html

Whatever You Like Song Lyrics by T.I. (2008). *SongLyrics.com*. Retrieved November 23, 2008 from http://www.songlyrics. com/t-i/whatever-you-like/289562/

18 d

Separating and identifying mixtures by Gas Chromatography

Experiment TECH 0709

General Chemistry II Laboratory

Instructor: Prof. Ganga Fernando

March 3rd, 2009

Introduction

Gas chromatography was invented in 1903 by the Russian scientist, Mikhail Semenovich Tswett. In 1947, Fritz Prior developed solid state gas chromatography.

Chromatography refers to several related techniques for separating mixtures of compounds, thin layer chromatography, Liquid chromatography, HPLC (High Performance Liquid Chromatography), size exclusion chromatography etc.

All chromatographic techniques have a two-part operation in common, Mobile phase and Stationary phase.

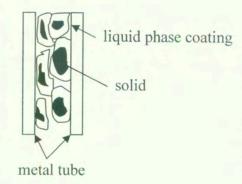
Depending on the technique, the sample mixture is carried by a liquid or gas, called a mobile phase. The mobile phase carries the sample through a solid support, called the stationary phase, which can be a solid or another liquid absorbed onto a solid. For example, in liquid chromatography, the mobile phase is a liquid like methanol and the stationary phase is also a liquid such as silicone rubber absorbed on to an inert granular solid. Gas chromatography uses an inert gas as the mobile phase moving through a column containing a liquid stationary phase.

There are two types of columns we learned, Packed Columns and Capillary

Columns. Those can be either polar columns or non polar columns. A polar column binds
the polar compound more strongly, causing it to move slower than the non polar
compound. Structures for common stationary phase materials are below.

Poly(dimethylsiloxane)

Packed Columns



Packed columns are usually made of copper or stainless steel tubing, with 1/8-inch or 1/4-inch diameters common for analytical columns. A packed column contains an inert supporting material carrying the stationary phase absorbed on them.

Capillary columns

Diameter of capillary columns range from 50 to 550 µm. These are made of fused silica. The inside surface of the column serves as the solid support. This surface is coated with the stationary phase liquid and this coating can remain stable up to about 25°C. Capillary columns give better separations than packed columns of the same length, and more compact, allowing longer columns. Capillary columns can separate complex mixtures containing many compounds with much smaller samples than packed columns do.

Detectors

There are two common types of detectors that are used in gas chromatographs,

Thermal Conductivity Detector (TCD) and Flame Ionization Detector (FID).

A thermal conductivity detector (TCD) compares the temperatures of two heated filaments, a sample filament and a reference filament. The filaments are made from an alloy whose resistance varies with temperature. The filaments are heated by an electrical current. A flame ionization detector (FID) burns the effluent coming off the column in a hydrogen-air flame. The combustion of an organic compound produces ions. Our gas chromatograph contains an FID detector.

Separation of mixtures

Compounds in a mixture usually are identified by looking at the retention time and the integrated peak area. Retention times depend on the physical properties of the compounds to be separated and the instrument parameters. Pure compounds can be injected as standards, and their retention times measured. Then the sample mixture is injected and the retention times of the mixture compounds are measured. By comparing the retention times of the sample compounds with the pure standards, each compound can be identified. Retention times are obtained by measuring the distance from the point of injection to the center of the peak, and dividing by the chart speed.

The separations of compounds are given in the form of a chromatograph, a plot of time vs. intentsity of the signal. From gas chromatographs, we can get the peak areas and response ratios. In my chromatographs, there are two numbers shown for each peak. The first number is the response ratio and the second number is the peak area. Peak areas are

the integrated areas under the peak on a chromatogram. From peak areas, we can calculate the proportional amount of a compound in the given sample. However direct comparison of peak areas for different compounds is unreliable because detectors do not have the same sensitivity to all compounds. We use the following method to calculate the composition of a sample mixture.

Response ratios are the ratios of peak areas for equal amounts of all compounds in a mixture. We calculate response ratios for a mixture of 1:1:1 of the three compounds and these are used to quantify separated compounds in a mixture when the amounts of the compounds are not known. To obtain accurate relative amounts of the compounds in a sample, peak area must be divided by the corresponding response ratios. These are the equations which show how to calculate the composition of an unknown mixture.

Response ratio =
$$\frac{\text{Peak area of the compound}}{\text{Middle peak}}$$

$$Corrected integral of compound = \frac{Peak area}{Response ratio}$$

Experiment

To start the experiment, the instrument was turned on and gas was adjusted. Carier gas Helium (He) was set at 25 psi (pressure per square inch). Hydrogen (H₂) gas pressure was set at 40-45 psi. The FID detector was ignited and checked using a metal wrench. The column was baked out for 5 minutes. The air compressor was turned on. Pressures of all gases and air were checked.

Peak sample software was turned on. Temperature program was set depending on the compounds to be separated. The syringe was rinsed 3-4 times with acetone. The syringe was half-filled with sample, and then it was expelled all but the amount wanted to be injected. A pure sample of butyl acetate was injected. The injection was done quickly and carefully to avoid bending the needle by using both hands. The needle was inserted into the septum until the syringe barrel is about 1 cm from the injector. The plunger was depressed fully and start button was pressed. The needle was withdrawn. After peaks for the compounds appear on the recorder, the column slowly cooled down to the initial temperature as it was set by the program. The result was recorded. The syringe was cleaned in acetone before using for a different sample. This procedure was repeated for methyl acetate, a mixture of this compound and an unknown.

In a second experiment, the initial temperature was changed from 35 degree to 30 degree to space out the solvent peak and the same mixture was injected. Gas chromatographs for all experiments were obtained.

Results and Discussions

As the molecular weight increases, the boiling point also increases. The molecular weight of Butyl acetate is 116.16g/mol, Propyl acetate is 102.13g/mol and Ethyl acetate is 88.11g/mol. So the boiling point of ethyl acetate is the lowest (76-77°C), the boiling point of the propyl acetate is the middle (102°C) and the boiling point of the buthy acetate is the highest (124-126°C). For our experiment, we added ether (ethoxyethane, CH₃-CH₂-O-CH₂-CH₃) to dilute the sample; this is the first peak in the chromatograph (solvent peak). With this fact and from the first chromatogram, it is clear that the second peak is for ethyl acetate, the third one is for propyl acetate, and the last one is for buthy acetate.

From the chromatographs (readings),

Butyl acetate: (initial temperature 30 degree)

Retention time = 2.466.

Propyl acetate: (initial temperature 35 degree)

Retention time = 0.966.

Mixture: (initial temperature 35 degree)

Retention time of ethyl acetate = 0.500

Retention time of propyl acetate = 0.966

Retention time of butyl acetate = 2.083

Mixture: (initial temperature 30 degree)

Retention time of ethyl acetate = 0.566

Retention time of propyl acetate = 1.133

Retention time of butyl acetate = 2.500

Unknown: (initial temperature 30 degree)

Retention time of the first peak = 0.600

Retention time of the second peak = 1.100

Retention time of the third peak = 2.416

Calculations:

Known mixture: (initial temperature 35 degree)

Response ratios

Ethyl acetate =
$$\frac{31342.7335}{47097.5220} = 0.665$$

Propyl acetate = $\frac{47097.5220}{47097.5220} = 1$
Butyl acetate = $\frac{90435.7310}{47097.5220} = 1.920$

Corrected integral of compounds

Ethyl acetate =
$$\frac{31342.7335}{0.665} = 47131.93$$
Propyl acetate =
$$\frac{47097.5220}{1} = 47097.5220$$
Butyl acetate =
$$\frac{90435.731}{1.920} = 47101.94$$

Percent compositions

Ethyl acetate =
$$\frac{47131.93}{47131.93 + 47097.5220 + 47101.94} \times 100$$
= 33.34 %

Propyl acetate =
$$\frac{47097.5220}{47131.93 + 47097.5220 + 47101.94} \times 100$$
= 33.32 %

Butyl acetate =
$$\frac{47101.94}{47131.93 + 47097.5220 + 47101.94} \times 100$$
= 33.32 %

Known mixture: (initial temperature 30 degree)

Response ratio

Ethyl acetate =
$$\frac{24022.5010}{37503.0560}$$
 = 0.64

Propyl acetate =
$$\frac{37503.0560}{37503.0560} = 1$$

Butyl acetate =
$$\frac{69882.5830}{37503.0560} = 1.863$$

Corrected integral of compound

Ethyl acetate =
$$\frac{24022.5010}{0.64}$$
 = 24399.4742

Propyl acetate =
$$\frac{37503.0560}{1}$$
 = 37503.0560

Butyl acetate =
$$\frac{69882.5830}{1.863}$$
 = 37510.78041

% composition

Ethyl acetate =
$$\frac{24399.4742}{24399.4742 + 37503.0560 + 37510.78041} \times 100$$

= 24.5434 %

Propyl acetate =
$$\frac{37503.0560}{24399.4742 + 37503.0560 + 37510.78041} \times 100$$
$$= 37.724 \%$$

Butyl acetate =
$$\frac{37510.78041}{24399.4742 + 37503.0560 + 37510.78041} \times 100$$
$$= 37.732 \%$$

Unknown: (initial temperature 30 degree)

Corrected integral of compound

Ethyl acetate =
$$\frac{23.7050}{0.64}$$
 = 37.039
Propyl acetate = $\frac{488.3220}{1}$ = 488.3220
Butyl acetate = $\frac{739.1490}{1.863}$ = 396.752

Percent composition

Ethyl acetate =
$$\frac{37.039}{37.039 + 488.3220 + 396.752} \times 100$$

= 4.01%
Propyl acetate = $\frac{488.3220}{37.039 + 488.3220 + 396.752} \times 100$
= 52.95%
Butyl acetate = $\frac{396.752}{37.039 + 488.3220 + 396.752} \times 100$
= 43.02%

Conclusion

This experiment was very useful to understand organic chemistry and one of its major separation techniques. The organic compounds we used in this experiment were methyl acetate, ethyl acetate, and propyl acetate. The structures of them are below.

$$C-C-O-C$$
 O

Methyl acetate

$$C-C-O-C-C$$

If the Ethyl acetate O

$$C-C-O-C-C-C$$

Propyl acetate

From the result of percent compositions, in the mixture, we can evaluate if there was a contaminant in the mixture. For the known mixture there were no contaminants, because percent compositions of three compounds were almost equal. On the other hand, from the result of percent composition, in the unknown, we can find that ethyl acetate is the contaminant because it is a very low amount compared to the other two. This proves that this method is a very good one to analyze the purity of a compound.

Compared to the first chromatogram and third chromatogram, the difference between them is the initial temperature. They show that as the initial temperature goes up, the retention time goes down. This explains the importance of temperature on separations as well. This is a good experience for me as a student and I enjoyed the lab.

Sources

http://www.chromatography-online.org/topics/packed/column.html

http://www.chromatography-online.org/topics/capillary/column.html

http://en.wikipedia.org/wiki/Gas_chromatography

Chemistry Laboratory text book (chemistry 104), Cengage learning, ISBN-13: 978-0-

534-64922-7

Init temp Hold 30.00 0.000 45.00 0.000 Temperature program: Component Analysis date: 02/24/2009 11:23:30
Method: SYRINGE ON-COLUMN 3 Description: Butyl Acetata
Column: 15METER MXT-1
Carrier: HELIUM AT 5 PS) Comments: TYPE YOUR COMMENTS HERE -25.000mV Lab name: SRI Instruments Client ID: N2024 Data file: C:VPEAKNTIo121.CHR () Sample: Mixture Client: Lauren Sholes Retention 3.000 10.000 1.116/31.4100 0.616/9.2360 Area Final temp 45.00 90.00 butyl acetate 0.350/334.2280 - 2.466/747.1220 200,000mV

0.0000

35.00 45.00 Temperature program: ~ O O Analysis date: 02/24/2009 10:37:54 Sample: Propyl acetate
Comments: TYPE YOUR COMMENTS HERE Description: Propyl acetate in ether Column: 15METER MXI-4
Carrier: HELIUM AT 5 PS1 3.933/6.7120 2.783/30.1210 4.400/9.7090 3.516/15.9560 -25.000mV Client ID: N2024 2.300/429.0200 Data file: C:\PEAKNT\c117.CHR () Method: SYRINGE ON COLUMN 0,000 0,000 3.000 10.000 Final temp 45.00 90.00 Propyl acetate solvent 0.300/48907.2220 0.966/129045.0980 5000.000mV

Component

Retention

Area

10t temp Hold 35.00 0.000 45.00 0.000 Temperature program: cn 3 Analysis date: 02/24/2009 10:44:48 N Method: SYRINGE ON-COLUMN
Description: Propyl acetate in ether
Column: 15METER MXT-1 Sample: Propyl acetate

Comments: TYPE YOUR COMMENTS HERE -25.000mV 4.166/26.4580 4.483/15.4920 3.700/53.0060 3.116/69.2820 5,833/13,3520 6.366/15.6490 6.900/6.8160 Data file: C:\PEAKNT\c118.CHR () 1.566/180.2880 7.566/5.8920 Carrier HELIUM AT 5 PSt 3,000 10,000 Final temp 45.00 90.00 2,083/99435.7310 propy acetate 0.966/47087.5220 0.500/31342.7395 0.283/26224 7370

5000.000mV

Lab name: SRI Instruments Client: Lauren Sholes

Client ID: N2024

0.0000

Component

Retention

Area

30.000 A5.00 Temperature program: Component Retention Analysis date: 02/24/2009 10:57:00
Method: SYRINGE-ON-COLUMN-5 5.050/5.2250 Comments: TYPE YOUR COMMENTS HERE Description: Propyl acetate in ether 7.116/7.4350 5.500/8.7220 1.866/32.4750 4.366/31.8010 3.733/9.3400 -25.000mV 0.883/193.8930 Data file: C:\PEAKNT\c119.CHR () 0.000 0.000 Sample: Mixture Column: 15METER MXT-1. Carrier: HELIUM AT 5 PSt 3.000 10.000 Area Figal temp 45.00 90.00 retention times changed bush a recorde 2.500/69882.5830 1439/37503.0560 0.350/15616.8836 5000,000mV

Init temp Hold 30.00 0.000 46.00 0.000 Analysis date: 02/24/2009 11:10:15
Method: SYRINGE ON-COLUMN
Description: Unknown F
Column: TSMETER MXT-1
Camier: HELIUM AT 5 PSt Temperature program: Component On w Comments: TYPE YOUR COMMENTS HERE 1.100/488.3220 -25.000mV 2.416/729,1490 0.600/23.7050 5.516/6.4410 Client ID: N2024 Data file: C:\PEAKNT\c120.CHR () Sample: Mixture 0.316/828.8830 Client: Lauren Sholes Retention 3,000 10,000 Area Final temp 45,00 90.00 Unknown

5000.000mV

Lab name: SRI Instruments