The Attic

The St. Mary's University
Journal of Undergraduate Papers

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A Note from the Editor

❧ **I am pleased** to announce this year's edition of *The Attic*! Once again, we have made the journal available not only in print but also online (stmu.ca) so that we can serve the broadest possible audience.

I'd like to thank all of you who responded to the call for papers. We received many excellent submissions and published essays that represent a diverse array of topics and disciplinary fields. I'd like to encourage you to continue to submit your most outstanding work for inclusion in upcoming issues.

I would also like to sincerely thank my intrepid associate editor and StMU graduate, Barbara Telford (B.A. History, 2019), who so generously committed her time, formidable editing skills, and considerable efforts to help ensure the successful release of this edition.

On a personal note, I'd like to express my appreciation for your support of *The Attic*. This is my final issue as *Attic* editor and I'm incredibly proud of the student work that we have published since the inception of the journal in F2010. I regard *The Attic* as a valuable outlet and platform for undergraduate research originating at St. Mary's University.

Welcome to *The Attic*!

Warm wishes,

Dr. Gayle Thrift,
Associate Professor of History
Editor of *The Attic*

Barbara Telford, B.A.
Associate Editor of *The Attic*

The Attic:
The St. Mary's University Journal of Undergraduate Papers

Editorial Statement of Purpose

❧ **Attic:** the prestige dialect of Ancient Greek spoken and written in Attica and its principal city, Athens; *Attic purity*: special purity of language; *Attic style*: a style pure and elegant; *Attic faith*: inviolable faith; *Attic salt/Attic wit*: a poignant, delicate wit.

The Attic: The St. Mary's University Journal of Undergraduate Papers is a journal devoted to the publication of exceptional undergraduate papers. By providing students a public forum for expressing their intellectual pursuits, *The Attic* promotes increased student engagement in research and scholarship, while also fostering a scholarly community of emerging researchers.

The Attic has undergone significant change since its first publication in 2008. Three volumes were published under its former name, *Salvia*. A revised mandate reflects our intent to be inclusive by publishing submissions from across the disciplines. In recognition of St. Mary's undergraduates' varied scholarly explorations, the journal welcomes submissions of all kinds such as essays, laboratory assignments, field notes, reviews, and explications. *The Attic* strives to encourage students' interest in the pursuit of excellence in research and scholarship throughout their undergraduate careers.

Standards of Publication

The papers adhere to the scholarly and stylistic expectations of the respective field, with a minimal amount of grammatical and mechanical errors. The writers present compelling and timely material in the ideas themselves and in the manner in which they present them. Submissions subscribe to the citation format assigned to each discipline.

The Effect of Meditation on Reducing Hypertension and Anxiety

Sneha Bashyal

❞ **Stress is defined as** a psychological and physiological reaction towards a stimulus which an individual appraises to be highly demanding of his or her potential, and resources to cope with the stress (Butler, 1993). Stress is a subjective experience, the severity of which depends on how demanding one finds the stimulus to be. If an individual believes that he or she does not have ample resources to address the stressful stimulus, then he or she may experience emotional distress and anguish. In terms of the organismal evolution, the stress response is a highly advantageous mechanism that helps the organism to overcome the environmental challenges and thus survive (Lundberg, 2005). However, the challenges of today's society; the rapid pace of life, more strenuous work, high family demands, and the competition of resources between individuals, burdens the individual with numerous sources of stress and responsibilities (Lundberg, 2005). The frequent exposure to stress and inadequate coping mechanisms can damage cardiovascular and mental health of individuals, causing them to become hypertensive and anxious (Butler, 1993). Meditation is a therapeutic activity that can lower the emotional arousals to stressors and help attain a tranquil state of mind. Past research supports the critical role of meditation in slowing down the progression of hypertension and anxiety disorders (Lundberg, 2005; Levine, 2017; Steinhubl ,2015). This paper will focus specifically on the two roles of meditation: in lowering the blood pressure of hypertensive patients and in lowering the emotional arousals in patients with anxiety disorders. The effect of meditation on health is important to be studied because when practiced along with pharmacotherapy, meditation can provide optimal health benefits to patients.

Literature Review

Chronic stress plays a significant role in initiating and escalating the development of hypertension (James, 2008). Persisting stressful arousal over stimulates the production of white blood cells (James, 2008). These white blood cells can form deadly plaques in the blood vessels, limiting the flow of oxygen, blood and essential nutrients to the heart (James, 2008). Several studies have examined the effects of meditation on the blood pressure (bp) of hypertensive individuals who did or did not meditate. The study conducted by Manikonda et al. (2007) revealed that meditation therapy decreased the bp of hypertensive individuals while the study of Blom et al. (2013) revealed that meditation had no effect on the bp over a long period of time.

The Effect of Meditation on Reducing Hypertension

A pilot study was conducted to determine the effects of contemplative meditation (CMBT), (Manikonda, 2007) and mindfulness-based stress reduction (MBSR), (Blom, 2013) on the blood pressure (bp) of unmedicated hypertensive individuals. The studies screened for participants who were diagnosed with hypertension (Manikonda, 2007; Blom, 2013). Twenty-six participants were randomized to eight weeks of CMBT sessions, while the remaining twenty six participants were put in the control group (Manikonda, 2007). In the study of Blom et al. (2013), forty-six participants were enrolled in eight weeks of MBSR sessions while forty-one participants were put in the control group. In Manikonda et al. study (2007), the participants in the CMBT group practiced weekly instructor-led breathing focused meditation for eighty minutes. At the end of the eighth week, the bp of all participants were measured at 5 minute intervals. Prior to the measurements, the participants were refrained from partaking in bp alternating activities such as drinking coffee, smoking and exercising. In Blom et al. study (2013), the participants in the MBSR group practiced a form of meditation that focused primarily on the reflection of self-thoughts and emotions. The participants actively participated in eight, weekly 2.5-hour instructor-led meditation sessions in addition to forty-five minutes of independent, daily meditation. The bp of all participants were measured at 15-minute intervals on the eighth and twelfth week.

The participants who meditated had a lower blood pressure (bp) than the participants in the control group (Manikonda, 2007; Blom, 2013). However, the data taken on the twelfth week revealed insignificant differences in bp of participants in the MSBR and control groups (Blom, 2013). The differential findings of these two studies result from variation in the style of meditation practiced and the methodologies used to record the bp. The participants in the CMBT group focused on their breathing to divert their attention from distracting thoughts while the participants in the MBSR group accepted and reflected on their recurring thoughts and emotions. Associating with past thoughts, especially those which elicited negative memories, can cause the participants to dwell excessively on their thoughts and remain disengaged from meditation. Due to this, the participants in the MBSR group might not experience the benefits of meditation on their bp as done by the participants in the CMBT group. The bp of the participants were taken over a period of 15 (Manikonda, 2007) and 45 minutes (Blom, 2013). The bp taken over the course of 45 minutes is more reflective of a body's natural state as if accounts for changes in the internal state of the body over extended amount of time. However, the participants in the study conducted by Manikonda et al. (2007) were refrained from partaking in bp alternating activities such as drinking coffee, smoking and exercising, prior to the measurements. Therefore, the bp measured in the study done by Manikonda et al. (2007) may be an accurate representation of bp in a person's body.

Limitations and Significance of Studies

The limitation of the study conducted by Manikonda et al. (2007) is that it did not examine the bp of CMBT practicing participants after their discontinuation of regular meditation. Blom et al. (2013) showed that the bp of participants can return to the pre-

study state if meditation is irregularly practiced. A small sample of participants were studied in both research studies (Manikonda, 2007; Blom, 2013). The statistically significant results often do not reflect a true effect in the cases where sample sizes are small because of its narrow representation of the general population (Manikonda, 2007). Therefore, the findings of these studies cannot be used to predict responses of individuals in the general population. The findings of Manikonda et al. (2007) are significant because the reduction of bp in a hypertensive adult can drastically reduce their risk of having stroke, coronary heart disease and heart attack (Blom, 2013). Meditation such as CMBT and MBSR, low cost, low risk, self-controlled alternatives that can help individuals cope with stress induced disorders and maintain a healthy longevity. The integration of regular practice of CMBT and MBSR with current health care programs can provide optimal health benefits to hypertensive adults.

Anxiety

The patients with anxiety disorders often find it difficult to regulate their emotions. Biologically, individuals who are affected with severe anxiety disorders tend to have hyper aroused amygdales. This causes them to perceive a normal stimulus to be threatful. Also, negative past experiences with similar stimulus serve as a negative reinforcement which causes anxious individuals to avoid interacting with the stimulus altogether (Golding, 2007). Past research has shown that by practicing meditation, one can regulate their emotions by shifting their attention from negative thoughts to neutral stimulus such as breathing. Mindfulness Based Stress Reduction (MBSR) therapy that had shown to decrease the blood pressure of hypertensive individuals can also help anxious individuals to gain and exert cognitive control over their negative thoughts (Golding, 2007).

The Effect of Meditation on Reducing Anxiety

Kabat-Zinn et al. (1992) conducted a pilot study to determine the effect of MBSR on reducing the number of panic attacks experienced by participants with anxiety disorders. A total of 44 participants between the ages of 26 - 64 years old and who were diagnosed with anxiety disorders were selected for the study. Twenty-two participants were randomly enrolled in MBSR group where they practiced two hours of meditation as a group and 7.5 hours independently, on a weekly basis for a eight weeks. While the remaining twenty-two were put under wait list control. The participants in both groups filled out weekly questionnaires describing the frequency of their anxiety attacks during that week. The severity of the panic attacks were determined based on the participant's score on the Hamilton and Beck anxiety scale (HBAS) test. The study compared the HBAS scores of the participants in the meditating and control group in three different occasions: during pretreatment, posttreatment and on the three month follow up. Compared to the participants in the control group, the participants in the MBSR group reported experiencing lower number of panic attacks. The reduction in the number of the panic attacks remained consistent in individuals who practiced more than 30 minutes of weekly meditation prior to the three month follow up. The study concludes that the practice of MBSR effectively reduced the frequency of the panic attacks experienced by the meditating participants at the eighth week period and three month follow up.

Golding et al. (2010) conducted a study to determine the effects of MBSR on regulating emotional reactivity in patients suffering from social anxiety disorder (SAD). SAD is a psychiatric disorder that causes the patients to develop negative thoughts about themselves and become fearful of how others may perceive them (Golding, 2010). A total of 16 patients with SAD underwent baseline MRI scanning. During the scanning session, the participants were shown negative phrases, such as "I am not good enough" and were asked to regulate their negative emotions by directing their attention to their breathing. All participants practiced two months of MBSR with 2.5 hour sessions each week. In the meditation sessions, the instructor would present negative phrases and the participants were to direct their attention from such negative beliefs to their breathing. The participants then rated the intensity of their negative emotions on the questionnaire sheet. After two months of meditation, the participants repeated their MRI assessment. During their scanning, the participants were presented with four new negative phrases and were once again asked to regulate their emotions by focusing on their breathing. Compared to the baseline results, the MRI of participants show decreased brain activity in the amygdala and increased activity in the frontal cortex. MBSR showed to decrease anxious feelings in patients with SAD by strengthening their emotional and cognitive control over negative thoughts.

Similarities and Differences in Methodologies

Mindfulness Based Stress Reduction (MBSR) lowers the frequency of panic attacks and negative emotional arousal experienced by anxious participants (Kabat-Zinn, 1992; Golding, 2010). The methodologies used to study the effect of meditation on anxiety was drastically different in both studies (Kabat-Zinn, 1992; Golding, 2010), however their research produced similar findings. Kabat-Zinn et al. (1992) focused on general anxiety disorders while Golding et al. (2010) focused specifically on social anxiety disorder. MBSR was practiced in both groups. However, the participants in the study of Golding et al. (2010) focused on their breathing to divert their attention from their negative emotions, while the participants in the study of Kabat-Zinn et al. (1992) used meditation to become calmer. The techniques used to measure the effects of anxiety varies among studies. Kabat-Zinn et al. (1992) used HBAS test and Golding et al. (2010) used MRI test to measure the severity of anxiety and the effect of MBSR on regulating negative emotions.

Significance of These Studies

The patients with anxiety disorders have hyperactive amygdala and tend to display avoidant behaviors to threatful stimulus (Golding, 2010). However, the participants in the MBSR groups were able to meditate calmly and attentively for longer duration of time without anxiously analyzing their thoughts (Kabat-Zinn, 1992). They were able to regulate their emotions by recognizing the negativity of their thoughts and by directing their attention to their breathing (Golding, 2010). The use of meditation to promote inner calmness can help many anxious individuals cope with their anxiety. Supplementing the current health care programs with MBSR could reduce the SAD-related avoidance behaviors and instill positive

self-beliefs in anxious individuals. Most importantly, the practice of MBSR helped the patients regain clarity and focus, even in the presence of their internal negative thoughts (Golding, 2010; Kabat-Zinn, 1992).

Future Studies

These research articles illustrated the effect of meditation on lowering the blood pressure of hypertensive patients (Manikonda, 2007; Blom, 2013) and in lowering the emotional arousals in patients with anxiety disorders (Golding, 2010; Kabat-Zinn, 1992). The studies also listed the conditions under which the effect of meditation on health could be consistently produced. The practice of meditation becomes habitual when individuals meditate regularly over a longer period of time. If an individual wants to experience consistent benefits of meditation, he or she must practice meditation regularly, as in daily or weekly. The individuals who become intrinsically motivated to meditate are more likely to continue meditation despite facing some challenges such as not having enough time and/or resources to meditate. For individuals who are new to mediation, taking instructor-led meditation courses are highly beneficial since it gives them an opportunity to learn about the proper meditation techniques. Over time, such individuals can become self-motivated and capable to meditate independently. By being aware of the conditions such as optimal duration and frequency of meditation practice, the researches could design meditation programs that would have a long-term positive effect on the individual's health. Future studies should focus on exploring new conditions such as finding the most effective style of meditation, and or personalizing a certain style of meditation to individuals with certain health conditions.

Conclusions

The experience of stressful emotions in response to a stressor is a subjective matter. The intensity of stress experienced differs in all individuals depending on whether the individual has sufficient resources to cope with the stressors (Butler, 1993). If an individual is frequently exposed to stressful environments, he or she can become highly susceptible to developing chronic stress. Such frequent exposure to stress can cause detrimental effects on the cardiovascular and mental health of that individual (Butler, 1993). However, meditation therapy has shown to slow down the progression of cardiovascular diseases especially hypertension (Blom, 2013; Manikonda, 2007) and neurological diseases such as anxiety disorders (Golding, 2010; Kabat-Zinn, 1992). Meditation is a therapeutic activity that can help individuals exert cognitive control over their negative thoughts and cope with stress induced disorders, regardless of being diagnosed with an illness. The benefits of meditation on health is important to be recognized and further studied because it can provide a long-term positive effect on any individual's health.

Gender Inequality within the Workplace
in Relation to Utilitarianism

Stephanie Bauer

ℰℴ To OXFAM Canada and the CCPA, "the global inequality crisis has reached new extremes" with gender inequality being no exception.[1] "[I]nequality is bad for everyone", particularly when preventing development of full potential, a concern of John Stuart Mill's; thereby negatively impacting society as a whole – a concept strongly discouraged by Mill's utilitarianism.[2] Just as wealth, income, and political power are not equally distributed between countries, neither does such a distribution exist between the sexes within society's respective workplaces.[3] Gender, and evidently, pay inequality within the workforce, due to perceived acceptance of inequality from a generational refashioning Cecilia Ridgeway, Framed by Gender: How Gender Inequality Persists in the Modern World (New York: Oxford University Press, Inc., 2011),[4]. – in which a moderately altered version of inequality is adopted and passed onto succeeding generations –originated in hunter-gatherer-societies[5] . In such societies, men played the stronger, "instrumental" role of hunter, while women, playing the "expressive, nurturer" role, stayed within close proximity to homesteads maintaining the role of gatherer, providing an overall shared benefit to "primitive" societies.[6] If such a means of survival was useful then, individuals argue, there should be no issues with the existence of this form of society now. To individuals in favour of a gendered division of labour, such a division is not perceived as unfair nor unjust by any means, but as key to human survival, flourishment, and recovery in times of crisis.[7]

Philosophical thinkers such as Mill believed that individuals should be able to develop their full potential to the greatest extent, and should not be hindered nor limited based on

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[1] OXFAM Canada and CCPA, "Making Women Count: The Unequal Economics of Women's Work", *OXFAM Canada* (2016): 1, accessed May 16, 2017, https://www.oxfam.ca/make-women-count.
[2] Ibid, 21.
[3] Ibid., 1.
[4] Cecilia Ridgeway, *Framed by Gender: How Gender Inequality Persists in the Modern World* (New York: Oxford University Press, Inc., 2011), 3.
[5] Talcott Parsons, and Robert Bales. *Family Socialization and Interaction Process* (Abingdon, Oxon, UK: Routledge, 1956), 9; 33.
[6]   Ibid., 9; 314
[7] Ibid., 9-10

gender.[8] Using Utilitarian arguments developed by Mill, I will argue in favour of pay equity across Canada and the U.S., as gender inequality with regards to equal pay is an ever-existing ethical concern in need of serious reconsideration. From the viewpoint of consequences/outcomes, central to utilitarianism, gender inequality within the workforce has greater negative consequences than that of equality, and is therefore detrimental to utilitarianism. I will argue pay equality based on gender is both better than that which is currently present (i.e. inequality), and that any of the negative consequences arising from equality will be outweighed by the positives. For instance, various studies seeming to link women's life satisfaction and income suggest when the ever-persistent wage gap between the sexes decreases, therefore increasing pay equity, that levels of satisfaction diminish.[9] However, the perceived correlation between the two factors does not prove the existence of a causal relationship as it does not take into account other aspects that may impact satisfaction, such as decreased time for other activities, or private matters at home – such as if children are involved and therefore increased concern regarding which parent will take on the primary role of nurturer. This study is therefore inadequate in presenting the negative consequences of equality, therefore supporting if equality does result in negative outcomes they will not be as severe as that of inequality. In doing this, I will acknowledge that Mill strongly defended utilitarianism with the view that "each person [is] to be counted equally" regardless of one's gender to pursue individual happiness as a means to increase society's overall happiness to promote "clear social utility [and benefit]".[10]

Views in favour of inequality such that a gendered division and expectations of each gender were/are necessary in order to restore and maintain economic stability and livelihood, findings suggest that a smaller wage gap between genders does not increase happiness but may decrease, and that personal satisfaction and "subjective well-being" with one's income regardless of gender inequality diminishes desires to eradicate such inequality, are all reasons behind the origins and existence of inequity.[11] In contrast, I will present views displaying many negative effects that such inequality has on daily lives and lifelong outlooks, and studies presenting the adverse severity of the "glass ceiling" concept – especially when both sexes have the same educational background, hold the same positions, and yet receive differing payment based on the very existence of gender. By analysis, I will argue that the outcome(s), in terms of greater benefit for the majority, presented by pay inequity will be found to have greater and more detrimental, negative consequences than that of equality.

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[8] Marvin Perry, Myrna Chase, James R, Jacob, Margaret C. Jacob, Jonathon W. Daly, Theodore H. Von Laue, in *Western Civilization: Ideas, Politics, and Society*, 11th ed. (Boston, MA: Cengage Learning, 2014), 574.

[9] Rafael Lalive, and Alois Stutzer, " Approval of Equal Rights and Gender Differences in Well-Being," *Journal of Population Economics* 23, no. 3 (2010): 933.

[10] John Stuart Mill, "Utilitarianism," in *Ethics: History, Theory, and Contemporary Views*, 6th ed., ed. Steven M. Cahn, and Peter Markie (New York: Oxford University Press, 2012), 363.

[11] Rafael Lalive, and Alois Stutzer, "Approval of Equal Rights and Gender Differences in Well-Being," *Journal of Population Economics* 23, no. 3 (2010): 933, accessed May 20, 2017, doi:10.1007/s00148-009-0257-4.

Utilitarianism is generally defined as: act- or rule- utilitarianism, in which both definitions hold that determination of the rightness or wrongness of an action "is judged by the consequences".[12] This notion of "consequences" being central to utilitarian thought is displayed through Mill's emphasis on the importance of such.[13] To the act-utilitarian, "the rational way to decide what to do is to perform…[which is most] likely to maximize the well-being of humanity as a whole."[14]

Classical utilitarianism is defined "as the theory that well-being consists in happiness, and that we ought to maximize the sum total of well-being." Utilitarian's perceive "the well-being of future people matters as much as the well-being of present people." This is based on the "fundamental ethical view that [there is] strong moral reason to do what we can to maximize the happiness and minimize the suffering/unhappiness in the world."[15] In this sense, "a utilitarian [would] accept that it is often better to equalize financial assets" via promoting pay equity within the workforce which "can benefit others, directly or indirectly."[16]

To Veenhoven, the "greatest happiness principle…appears practically feasible and morally sound [and therefore] deserves a more prominent place in policy making". Alternative perspectives feel this principle is neither realistic nor desirable in contemporary society. Contrary to these objections, history, studies, and results indicate that such a concept should be included in societal policy making and other activities to promote values such as freedom, equality, and liberty.[17] Characterized as "ingredients of happiness[18]…[with] each of them desirable in itself…[w]hat was once desired as an instrument for happiness has come to be desired for its own sake. In being desired for [their] own sake [these are], however, desired as part of happiness." The "principle of utility or… greatest happiness principle…has a large share in forming the [commonly accepted] moral doctrines."[19] To this extent, Mill believes moral principles and the actions which they guide, such as equality within society, to have "customary morality, which education and opinion have [made], [as] the only one which presents itself [as] being in itself…obligatory."[20] Mill suggests the standards of happiness are "not [for] the agent's own greatest happiness, but the greatest amount of happiness altogether."[21] Equality, following Mill's conviction, is a principle "that [we] should treat all equally well" as it "is the highest

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[12] J.J.C. Smart, and Bernard Williams, *Utilitarianism: For & Against* (New York: Cambridge University Press, 1973), 9.

[13] John Stuart Mill, "Utilitarianism," in *Ethics: History, Theory, and Contemporary Views*, 6th ed., ed. Steven M. Cahn, and Peter Markie (New York: Oxford University Press, 2012), 365.

[14] Smart, *Utilitarianism: For & Against* (New York: Cambridge University Press, 1973), 9.

[15] Bengt Brülde and Krister Bykvist. "Happiness, Ethics, and Politics: Introduction, History and Conceptual Framework," *Journal of Happiness Studies* 11, no. 5 (2010): 543; 541.

[16] Ibid., 547.

[17] Veenhoven, "Greater Happiness for a Greater Number, 605.

[18] John Stuart Mill, "Utilitarianism," in *Ethics: History, Theory, and Contemporary Views*, 6th ed., ed. Steven M. Cahn, and Peter Markie (New York: Oxford University Press, 2012), 382.

[19] Ibid.,. 365.

[20] Ibid.,. 377.

[21] Ibid.,. 369.

standard of justice, toward which all institutions [including the workforce] and the efforts of all virtuous citizens should be made in the utmost degree to [come together upon]."[22]

Mill's Utilitarianism discusses justice, examining the notions surrounding justice and injustice, as well as Mill's understanding of equality in which "[a]ll persons are deemed to have a right to equality of treatment."[23] In regards to the importance of equality, "Mill considers global happiness, the sum of all individual utilities, necessarily integrates the happiness of half the population, constituted by women. They have, like men, interests that must be taken into account. Furthermore, in such calculations, an individual's happiness 'is counted for exactly as much as another's.'[24] The necessity and "respect of the freedom of women responds to a need of justice, being essential to promotion of overall happiness." In this sense, letting individuals choose within the workforce, by regulated legal equality, "leads to the most advantageous employment of collective faculties."[25] Regarding female status in society, Mill states: "it is quite inappropriate to consider marriage/motherhood as a women's 'natural vocation' or 'social duty'…they should enjoy the same protection of freedom as men, without [fear that such will have] detrimental effects on utility."[26] In other words, for Mill, a "traditional sexual division of labour in society cannot occur at the expense of the dignity of women."[27] In The Subjection of Women, Mill "argued that the 'existing social relation between the sexes', namely, the 'legal subordination of one sex to the other', should be replaced by a 'principle of perfect equality'… [as inequality leads to] hindrances of human improvement."[28] In regards to Mill's account of justice, "the principle of 'equal pay for equal work' without [gender] discrimination…is simple justice."[29]

Mill emphasized the greatest happiness principle "is a mere form of words without rational significance unless one person's happiness, supposed equal in degree…is counted for exactly as much as another's."[30] Mill does not feel the need to distinguish men from women within society, but rather sees the importance in benefiting and developing the individual within society, regardless of their gender, to benefit society as a whole. Based on the utilitarian notion supporting the greatest happiness/benefit "for the greatest number of people" Mill

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[22] Ibid.,., 395.

[23] Ibid.,. 395.

[24] Virginie Gouverneur, "Mill versus Jevons on traditional sexual division of labour: Is gender equality efficient?." *European Journal of the History of Economic Thought* 20, no. 5 (2013): 752-753; Mill, "Utilitarianism," in *Ethics: History, Theory, and Contemporary Views*, 395.

[25] Gouverneur, "Mill versus Jevons on traditional sexual division of labour: Is gender equality efficient?", 760.

[26] Ibid., 765.

[27] Ibid., 766.

[28] Clare McGlynn and Ian Ward. "Would John Stuart Mill have Regulated Pornography?." *Journal of Law & Society* 41, no. 4 (2014): 511.

[29] Marcia Cohen, "THE ESCAPE CLAUSE: HOW U.S. EQUAL PAY LAW HAS FAILED WOMEN AND WHY," *Human Prospect* 3, no. 3 (2013), 22.

[30] Perry, in *Western Civilization: Ideas, Politics, and Society*, 574; John Stuart Mill, "Utilitarianism," in *Ethics: History, Theory, and Contemporary Views*, 6th ed., ed. Steven M. Cahn, and Peter Markie (New York: Oxford University Press, 2012), 395.

believed all people "should be able to develop their talents and intellects as fully as possible" to present the greatest overall benefit.[31] In The Subjection of Women, Mill stated: "[t]he generality of the male sex cannot yet tolerate the idea of living with an equal" – regarding women within the labour force – representing increased competition; unfortunately, it appears that society still has a way to go.[32]

Mill's Utilitarianism responds to criticisms against utilitarian notions based primarily on misconceptions, finally reasoning that "[t]hose who know anything about the matter are aware that…the theory of utility meant [not something contrary] from pleasure, but pleasure itself, together with exemption from pain."[33] Mill's principle states: "actions are right in proportion as they tend to promote happiness; wrong as they tend to produce the reverse. By happiness is intended pleasure and the absence of pain; by unhappiness, pain and [deprivation] of pleasure."[34] Mill mentions this principle in light of his account of desire in that: "this theory of morality is grounded…[in] that pleasure and freedom from pain are the only things desirable as ends; and that all desirable things… are desirable either for pleasure inherent in themselves or as [a] means to [promote] pleasure and the prevention of pain."[35] Although some pleasures are more desirable than others, Mill believes things are only desirable in so far as they are a means of achieving pleasure, leading to higher degree of "benefit to [the] collective interest."[36]

Gender inequality and persistence of resulting pay disparity is "cited by international agencies as a worldwide concern", based on the evidentiary conclusion that "women earn less than men in all countries and all regions of the world."[37] However, when individuals in favour of pay inequity are faced with the challenge of explaining such findings, they argue instead "that the difference in women's and men's earnings does not reflect any devaluing of women's work or discrimination against women" but is rather "an accidental result of the fact that women and men choose different occupational paths with different" rewards.[38] Such individuals offer explanations that "perhaps not as many women as men have the ability, qualifications, and/or interest to pursue such positions or to perform top [requirements]."[39]

This belief of women having lesser ability, qualification, and/or interest has long been present, formally beginning with individuals such as Parsons and Bales approximately a decade after WWII.[40] Individuals promoting "the legitimacy of traditional sexual division of labour…

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[31] Veenhoven, "Greater Happiness for a Greater Number, 605; Perry, in Western Civilization: Ideas, Politics, and Society, 578.

[32] Lalive," Approval of Equal Rights and Gender Differences in Well-Being," 934.

[33] John Stuart Mill, "Utilitarianism," in Ethics: History, Theory, and Contemporary Views, 6th ed., ed. Steven M. Cahn, and Peter Markie (New York: Oxford University Press, 2012), 366.

[34] Ibid., 366.

[35] Ibid., 366; 381.

[36] Ibid., 367; 390.

[37] Hilary Lips, "The Gender Pay Gap: Concrete Indicator of Women's Progress Toward Equality," *Analyses of Social Issues & Public Policy* 3, no. 1 (2003), 88; 91.

[38] Lips, "The Gender Pay Gap: Concrete Indicator of Women's Progress Toward Equality," 91.

[39] Ibid., 101.

[40] Parsons, *Family Socialization and Interaction Process*, 7.

consider women as having a natural superiority in nurturing and housekeeping [as their view] consists in putting forward the efficiency" of this tradition.[41] Parsons and others "suggest women's under-representation relates to 'innate biological differences' between [the sexes]. However, most scholars argue there is no empirical evidence suggesting [women] are not as capable as men."[42]

Parsons maintained his definition of the "nuclear family" – a heterosexual, married couple and their children – in which all members fulfilled gender roles deemed crucial to the success, survival, and flourishment of society following the remaining devastations of WWII.[43] During post-war periods "economic growth [and recovery required] the [stereotypical] role of [women]"; however, governments reinforced stereotypes through welfare policies based on gendered division of labour within the family.[44] The outcome of Parsons' ideologies is "a history of gendered labour in [which] men and women [had and continue to have] similar expectations for gender roles – that men should be breadwinner[s] and women should take care of the household."[45]

In response to those in favour of inequity, Marsden argues that WWI may have increased rights for women.[46] Marsden suggests the need for female labour led to new opportunities and perceptions of equality as women temporarily occupied roles previously held by men.[47] If women were perceived to be equally as able as the men formerly fulfilling those roles, how is it, not only that perspectives in favour of gender inequality resumed following each war, but that such views continue to exist today? Colley argues WWII "was a turning point in female labour participation. The artificiality of discriminatory barriers was evident, as governments removed and reinstated them as required."[48] Marsden argues, that women have always been equally essential to the economy as they are present in all social classes, just as they are clearly essential to family formation and preservation.[49] "Several studies indicate justification for

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[41] Gouverneur, "Mill versus Jevons on traditional sexual division of labour: Is gender equality efficient?", 741.

[42] Claire Rollor, "NARROWING THE GENDER PAY GAP BY PROVIDING EQUAL OPPORTUNITIES: The Need for Tenured Female Professors in Higher STEM Institutions in an Effort to Recast Gender Norms," UCLA *Women's Law Journal* 21, no. 2 (2014), 147.

[43] Parsons, *Family Socialization and Interaction Process*, vii.

[44] David Chiavacci. "Changing egalitarianism? Attitudes regarding income and gender equality in contemporary Japan." *Japan Forum* 17, no. 1 (2005): 110-111.

[45] Janell Fetterolf and Laurie Rudman. "Gender Inequality in the Home: The Role of Relative Income, Support for Traditional Gender Roles, and Perceived Entitlement." *Gender Issues* 31, no. 3/4 (2014): 221.

[46] Lorna Marsden, *Canadian Women & the Struggle for Equality* (Dons Mills, Ontario: Oxford University Press, 2012), 7.

[47] Marsden, *Canadian Women & the Struggle for Equality* (Dons Mills, Ontario: Oxford University Press, 2012), 58.

[48] Linda Colley, "Not Codgers in Cardigans! Female Workforce Participation and Ageing Public Services," *Gender, Work & Organization* 20, no. 3 (2013), 329.

[49] Marsden, *Canadian Women & the Struggle for Equality* (Dons Mills, Ontario: Oxford University Press, 2012), viii.

measures promoting women [as they] demonstrate [that increased] efficiency is positively linked to equality."[50]

Lalive and Stutzer display studies and evidently suggestions in regards to not only why gendered pay inequity exists, but also why it is not something society should discourage/eliminate.[51] The authors suggest the wage gap has been identified as a means of shaping well-being; and therefore elimination of such would be detrimental for individual well-being. However, "as long as both [sexes] get what they expect or ask for, differences in salaries may not result in differences in reported well-being."[52] Although "measures of reported subjective well-being passed a series of validation exercises and seems to significantly correlate with true feelings", there is no evidence such measures indicate causation.[53] Socially imbedded and internalized "social norms regarding appropriate pay [is] the main explanatory factor of [wage] differences."[54] However, the authors also state the "key difficulty…is the identification of the causal mechanisms leading women to earn less than men for seemingly equal work", in addition to stating "it is not possible to rule out [what is the primary factor] driving [the] results."[55] Although the authors attempt to present a causal relationship between equal income for women (compared to men) in relation to diminishing satisfaction, they conclude "of course [there are] alternative explanations to the correlation of equal rights [and payment] and women's [life] satisfaction" not considered, therefore preventing the authors from confidently stating the existence of such.[56] The article therefore lacks the ability to demonstrate the negative consequences of equality.

Contrary to the supposed causal relationship between increased pay equity and decreased life-satisfaction in women, a "comprehensive [2009] review[s] of governmental, social science, and original research" asserts "children, parents, and marriages can all flourish when both parents have full careers" with equal pay. Moreover, "sharing financial and child-care responsibilities leads to less guilty moms, more involved dads, and thriving children."[57] Mill strongly valued the importance of individual flourishment, but also proper child development to ensure maximized happiness of current and future generations as key to that of utilitarian standards.[58] For Mill, "deficiency of [proper] child breeding [and rearing] can lead to negative [consequences] for society as a whole."[59]

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[50] Gouverneur, "Mill versus Jevons on traditional sexual division of labour: Is gender equality efficient?", 741.

[51] Lalive, "Approval of Equal Rights and Gender Differences in Well-Being," 933.

[52] Ibid., 934.

[53] Ibid., 951.

[54] Ibid., 958.

[55] Lalive, "Approval of Equal Rights and Gender Differences in Well-Being," 951.

[56] Ibid., 957.

[57] Sheryl Sandberg, *Lean In: Women, Work, and the Will to Lead*, (New York: Alfred A. Knopf, 2013), 24.

[58] Gouverneur, "Mill versus Jevons on traditional sexual division of labour: Is gender equality efficient?", 741.

[59] Gouverneur, "Mill versus Jevons on traditional sexual division of labour: Is gender equality efficient?", 748.

While society has made large degrees of progress in driving out "overt discrimination [within] organizations, gender discrimination [whether subtle or overt] still exists and accounts for lack of movement [towards] shattering the glass ceiling."[60] The glass ceiling is a commonly accepted term "to describe the plight of women in the workforce which refers to the invisible barrier women face as they advance through the ranks of their professions but are able to progress only so far before being [hindered] in their efforts to reach upper [positions]."[61] Regarding the negative consequences such a barrier can present, the "glass ceiling prohibits both women and organizations from reaching their full potential and denies us all of the maximal benefits of gender diversity in [organizations]"; thereby presenting increased societal disadvantages and creating harm by utilitarian standards.[62]

"Despite considerable research demonstrating beneficial outcomes of women in leadership [roles], a variety of barriers impede the advancement and aspirations" of women, including "cultural biases and stereotypes, challenges involving a work-life balance, and a lack of mentors or sponsors."[63] Although understanding the causes of the wage gap is complex, the primary cause may lie in underlying and "unexamined assumptions" that society should base/judge the work of women in comparison to that of statistical male work patterns.[64] Another reason as to why the earnings gap persists lies "it seems, [in] a continuing tendency to undervalue women and the work they do."[65] In addition, individuals speculate the main cause of gender inequality as related to refusal of employers to acknowledge and/or accommodate the numerous responsibilities women tend towards in contemporary society.[66] This, therefore, prevents women from advancing in their occupations, and ultimately contributes to the ever-existing earnings gap.

Women were not considered to be "persons" – socially, politically, or legally – at the time of Canadian Confederation, therefore limiting their opportunities by literally creating a division in gender.[67] Parsons argued "it is quite clear in general the woman's job [is] a qualitatively different type and not of a status which seriously competes with [that of men, who should be perceived as] the primary status-giver or income-earner."[68] Society has made many attempts to promote equality; in areas where people have "voted in favor of equal pay"

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[60] Merida Johns, "Breaking the Glass Ceiling: Structural, Cultural, and Organizational Barriers Preventing Women from Achieving Senior and Executive Positions." *Perspectives in Health Information Management / AHIMA, American Health Information Management Association* (2013), 7.

[61] Marie Chisholm-Burns, et al., "Women in leadership and the bewildering glass ceiling," *American Journal of Health-System Pharmacy* 74, no. 5 (2017), 312.

[62] Ibid.

[63] Ibid., 321; Johns, "Breaking the Glass Ceiling: Structural, Cultural, and Organizational Barriers Preventing Women from Achieving Senior and Executive Positions," 2.

[64] Lips, "The Gender Pay Gap: Concrete Indicator of Women's Progress Toward Equality," 90.

[65] Ibid., 100.

[66] Ibid., 105.

[67] Marsden, *Canadian Women & the Struggle for Equality* (Dons Mills, Ontario: Oxford University Press, 2012), 2.

[68] Parsons, *Family Socialization and Interaction Process*, 14.

there is a smaller gender pay wage gap.[69] However, an "earnings gap" has persisted throughout human society and is potentially getting worse.[70]

"While the economic penalties in the salary gap are likely obvious, the psychological ramifications are [even more serious]." For instance, "a significant association between salary gap and increased rates of depression and anxiety disorder among women" have been observed.[71] The existence of pay inequity based on gender have long been observable: "in 1951, U.S. women [made] 63.9 cents for every dollar men earned; [in 2003], women [made] 73.25 cents".[72] "To the extent that family work prevents women from advancing in their occupations" – since "women still do most unpaid domestic work, child-rearing, and/or dependent care-work" in comparison to men – this gender-imbalance has serious, negative consequences such as loss of "thousands of dollars in wages, retirement contributions, and social security benefits."[73] There is great concern regarding the current presence and severity of this gap displaying no signs of narrowing within the immediate future.[74] At this "rate of change [towards equality], working women in the U.S. will not achieve equal pay until 2050."

From a young age, children are introduced to gender stereotypes that tend to be reinforced through one's life and eventually run the risk of becoming self-fulfilling prophecies. While females are "taught to behave in a cooperative, selfless, and nurturing way, males [are] taught to behave in a competitive and selfish way"; therefore creating "systematically different expectations about what salary is appropriate" for both sexes within the workforce.[75]

Society observes men in leadership positions, therefore women do not expect to hold these positions themselves. Sandberg states "[t]he same is true with pay. Men generally earn more than women, so people expect women to earn less" – and they do.[76] When females find themselves in male-dominant positions, the presence of stereotypical gender roles and their perceived acceptance "can become more pronounced" due to feelings of self-doubt.[77] Women constantly underestimate themselves, believing they have limited skills or abilities, and struggle to dismiss feelings that they should not hold positions of authority; this sense of inadequacy may be the reason they do not hold such positions.[78] Sandberg states that if we want to achieve a world with greater equality, at work and at home, society must "correct this behaviour by encouraging, promoting, and championing more women" within the workforce

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[69] Lalive, "Approval of Equal Rights and Gender Differences in Well-Being," 933.

[70] Lips, "The Gender Pay Gap: Concrete Indicator of Women's Progress Toward Equality," 87; 91.

[71] Marie Chisholm-Burns, et al., "Women in leadership and the bewildering glass ceiling," *American Journal of Health-System Pharmacy* 74, no. 5 (2017), 316.

[72] Lips, "The Gender Pay Gap: Concrete Indicator of Women's Progress Toward Equality," 96.

[73] Ibid., 105.

[74] Ibid., 96.

[75] Lalive, "Approval of Equal Rights and Gender Differences in Well-Being," 936.

[76] Sandberg, *Lean In*, 22.

[77] Ibid., 30.

[78] Ibid., 28.

and in everyday society.[79] It is important to note, "women's capacities are not inferior to men [and should not be viewed as such, rather] they are [simply] distinct."[80]

Although "women's educational attainments and workforce ranks have increased, their advancement into the upper rankings of management [and leadership positions while achieving equal work for equal pay] has stalled in recent years."[81] Currently, women earn 57 and 60 percent, respectively, of undergraduate and master's degrees in the U.S.[82] While women continue to surpass men in educational achievements, there has been little progress in regards to the equal pay based on educational ability in virtually any industry.[83] It would appear regardless of women's increasing educational access and levels of achievement, inequality is ever persistent.[84]

There are large differences between the sexes regarding negotiations and negotiation tactics in that "women can be expected to negotiate in a systematically different way than men do. In fact, there is now substantial evidence that women ask for less [money, accommodations, and/or compensation] than men, or do not ask at in pay negotiations."[85] Studies regarding respective gender differences and their role in negotiations suggest "when a woman negotiates on behalf of herself, assertive bargaining is encoded as [incompatible] with communal [stereotypes] of the feminine role. When a woman negotiates on behalf of others, [and displays the same assertive behaviours] it is compatible with communal femininity."[86] Women are "penalized for displaying either too little or too much assertiveness, competitiveness, and independence. Women's typical communication style is [warmer], less direct, and more mitigated. This can lower perceptions about women's abilities. However, if a women exhibits too much assertiveness [contrary to female stereotypes] her influence and likeability may be lowered."[87] However, "[t]here is little [chance of a] downside when men negotiate for themselves; [people] expect men to advocate on their own behalf, point out their contributions, and be recognized/rewarded for them."[88]

Mill perceived gender "equality as fundamental to utilitarianism [as] it was the means by which to ensure the greatest happiness for the greatest number of people."[89] Governments and

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[79] Ibid., 36.

[80] Gouverneur, "Mill versus Jevons on traditional sexual division of labour: Is gender equality efficient?", 761.

[81] Johns, "Breaking the Glass Ceiling: Structural, Cultural, and Organizational Barriers Preventing Women from Achieving Senior and Executive Positions," 4.

[82] Sandberg, *Lean In*, 15.

[83] Ibid., 5-6.

[84] Lips, "The Gender Pay Gap: Concrete Indicator of Women's Progress Toward Equality," 91; 93.

[85] Lalive, "Approval of Equal Rights and Gender Differences in Well-Being," 937.

[86] Marie Chisholm-Burns, et al., "Women in leadership and the bewildering glass ceiling," *American Journal of Health-System Pharmacy* 74, no. 5 (2017), 314.

[87] Ibid., 316.

[88] Sandberg, *Lean In*, 45.

[89] McGlynn and Ward. "Would John Stuart Mill have Regulated Pornography?", 513.

countless other institutions have "many tools at [their] disposal to address barriers within the workplace [holding] women back. The government can act as a catalyst for promoting gender equality perspectives/practices by: heightening awareness of inequality, the benefits of equality, and the adverse impacts gender inequality [has] on women, children, families, communities… and the nation as a whole." If pay and gender equity are achieved not only will this present a larger benefit compared to that which is present in contemporary conditions, but if negative consequences do arise from equality they will not present as unfavourable outcomes as that of inequity based on gender differences.[90]

Regarding utilitarianism, Mill concludes the "happiness of mankind is [a collection] of those 'happy' individuals, who train their behaviour to desire the 'right' end…achieved in no other way than 'active self-development'; in the sense that if gender equality is achieved, the greatest "collection" of happiness can be achieved with "pleasure at its core."[91] However, "one need not be a utilitarian to attach great weight to the idea that well-being matters greatly [nor to] think that we have strong moral reason to promote well-being and minimize suffering".[92] "The hard work of generations before us means that equality is within reach. We can close the gap. Each individual's success can make success a little easier for the next generation."[93]

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[90] Johns, "Breaking the Glass Ceiling: Structural, Cultural, and Organizational Barriers Preventing Women from Achieving Senior and Executive Positions," 6.

[91] Loizides, "Mill on Happiness: A Question of Method," *British Journal for the History of Philosophy* 22, no. 2 (2014): 318.

[92] Brülde and Bykvist. "Happiness, Ethics, and Politics: Introduction, History and Conceptual Framework," 548.

[93] Sandberg, *Lean In*, 171-2.

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Transgender Washrooms and Utilitarianism

Kyrie Bouscal

&ℛ **Cisgender individuals who self-identif**y with the gender binary of male and female are, as a whole, conflicted about the rights of transgender individuals. Someone who is transgender identifies with a different gender -- "socially constructed roles, activities, behaviours, and attributes that a given society assigns to groups based on their anatomical, hormonal, chromosomal, and reproductive composition"[1] -- to that which they were assigned at birth. While many people are supportive of freedom of gender identification, they may not be eager to compromise their own rights to allow transgender individuals comfortability in the public sphere. Whether tradition, safety, or just fear of the unknown, many people are not receptive to an individual whose biological sex does not match their gender portrayal. Transgender people face discrimination every day, and transitioning involves invasive and life-altering medical processes, mental health monitoring, and often the loss of unsupportive loved ones. Though it is important to satisfy the demands of morality -- "the rules and precepts for human character"[2] --, each individual has an extent to which they are willing to go beyond to accommodate transgender individuals.

John Stuart Mill is a utilitarian who believes in the principle of utility: "the principle that approves or disapproves of every action according to the tendency it appears to have to increase or lessen... the happiness of the person or group whose interest is in question"[3] For Mill, if someone has a right, they "have something which society ought to defend."[4] He believes that "pleasure and freedom from pain are the only things desirable as ends"[5] and recognizes that "if by happiness be meant a continuity of highly pleasurable excitement, it is evident enough that this is impossible. A state of exhaled pleasure lasts only moments... and is the occasional brilliant flash of enjoyment, not its permanent and steady flames."[6] However, Mill puts happiness on a scale, believing that something which brings someone immense happiness is worth more than something that provides a small amount of happiness.

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[1] Jackson Shultz, *Trans/Portraits: Voices from Transgender Communities* (Hanover: Dartmouth College, 2015), 197.
[2] Steven Cahn and Peter Markie, *Ethics: History, Theory, and Contemporary Issues* (New York: Oxford, 2016), 368.
[3] Jeremy Bentham, "An Introduction to the Principles of Morals and Legislation," 7.
[4] Cahn, *Ethics*, 391.
[5] Ibid., 366.
[6] Ibid., 369.

In the case of transgender washrooms, the happiness experienced by transgender individuals who would be included in the public institution outweighs the happiness the average cisgender individual experiences using the public restroom. In this paper I am going to argue in favour of the following claim: transgender individuals should be allowed to use washrooms labeled for the binary until gender neutral washrooms are consistently implemented in convenient and non-discriminatory locations. Gender neutral refers to "anything that a society or culture considers appropriate for anyone, irrespective of gender... associations."[7] I will defend this argument through the analysis of (a) statistical data to disprove the validity of the content of cisgender fears related to transgender people in the binary washroom, (b) the effects of societal discrimination on the mental and physical health of transgender individuals, (c) case studies which demonstrate a complete rejection of freedom and inclusion for transgender people, and (d) Mill's account of happiness as it relates to transgender issues.

Mill was heavily influenced by the Enlightenment period, which represented a break from the "superiority of ancient over modern civilization".[8] It was a time in which people were beginning to reject absolute power and look to science as a new form of objective reality.[9] David Hume and John Locke were popular Enlightenment writers who had a major influence on Jeremy Bentham, who was the founder of the term "utilitarianism" and adopted responsibility for Mill's education. The freedom of thought and progression of ideals allowed Bentham to be innovative in his creation of the term utilitarianism as a guiding principle. Following this, Bentham expanded his ideas to develop the greatest happiness principle which he hoped would better mankind. He defines the greatest happiness principle as "the principle stating that the greatest happiness of all those whose interests are involved is the right and proper ... end of human action ... in every situation"[10]

Mill adapted the ideas of Bentham to create his own definition of utilitarianism: "actions are right in proportion as they tend to promote happiness and wrong as they tend to produce the reverse of happiness, each person to be counted equally".[11] Mill would argue that an action is correct if it produces happiness found through pleasure and the absence of pain, and believed that the greatest happiness principle is inescapable; it has "a large share in forming the moral doctrines, even of those who most scornfully reject its authority."[12] He believed in the power

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7   Tracey Hughes, "Gender Neutral Washrooms," *Education Forum: The Magazine for Secondary School Professionals* 20, no. 2 (2014): 9, accessed May 29, 2018, https://search.proquest.com/docview/1562708755?accountid=14098.

8   Johnson Wright, "Enlightenment," *Encyclopedia of the Early Modern World 2* (2004): 301, accessed March 24, 2018, http://link.galegroup.com.ezproxy.acsmc.talonline.ca/apps/doc/CX3404900348/WHIC?u=calg97288&xid=9ea12aff.

9   Carolyn Salomons, "Enlightenment," (lecture, History 200B, St. Mary's University, Calgary, January 17 and 24, 2018).

10 Bentham, "An Introduction," 6.

11 Cahn, *Ethics*, 363.

12 Ibid., 365.

of the individual and the importance of liberty as a springboard for achieving higher pleasures. Higher pleasures are typically intellectual such as reading, philosophy and opera, whereas lower pleasures would include biological pleasures such as eating and sleeping.

Mill uses the harm principle as a way of enforcing his idea that consequences are all that matter. This principle involves deliberation and intention on the part of the actor as to whether or not the harm would make someone worse off than they already would have been.[13] Mill enforces that individuals should be sovereign over their entire own selves including harm, but "the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others."[14] The tyranny of the majority refers to the idea that the power of a majority disregards the minority altogether. Though not altogether intentional, members of the minority are often not represented beyond their unpopular opinion. Mill is primarily concerned with the power society can have over an individual which he calls civil liberty, though he recognizes "this isn't a new issue".[15] Mill believes that individual freedom leads to happiness and he wishes for people to question everything in order to see improvement in society.

In many places around the world, LGBT -- Lesbian, Gay, Bisexual, Transgender -- communities "don't even exist in the open [because] ... they could be killed on sight."[16] In North Carolina in 2016, their bathroom law forced individuals to "use the facility that corresponds to the genitalia with which they were born."[17] This created large discomfort among the populations of both LGBT and cisgender people. Another editorial exchange four days later introduces the same issue, but with the idea that if a legislation was passed to stop discrimination based on gender identity, it would be illegal to "deny someone a job or discriminate against them in their workplace... [and] protect transgender individuals from hate speech and hate crimes."[18]

Though the introduction of legislation is a start, not everyone will consider themselves to be acting morally if they abide by the law. Mill argues that the interests of all individuals should align with those of the whole, but "the motive has nothing to do with the morality of the action though much with the worth of the agent".[19] Morality is subjective and "moral feelings are not indeed a part of our nature in the sense of being in any perceptible degree present in all of us."[20] A prevalent movement in Canada and the U.S. is pushing the idea that Christians are

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[13] "Mill 'On Liberty'- Freedom & Empire | Philosophy Tube," YouTube video, 12:29, posted by Philosophy Tube, February 19, 2016, https://www.youtube.com/watch?v=_wF2aIQM4M8.

[14] "Freedom of Speech." *Stanford Encyclopedia of Philosophy*. 17 April 2008.

[15] John Stuart Mill, "On Liberty," 1.

[16] "Editorial Exchange: Bathroom Wars," *Western Star*, May 16, 2016, accessed June 12, 2018, https://search.proquest.com/docview/1789547347?accountid=14098.

[17] Ibid.

[18] "Editorial Exchange: Time to Guarantee Transgender Rights," *Waterloo Region News*, May 20, 2016, accessed June 12, 2018, https://search.proquest.com/docview/1790262286?accountid=14098.

[19] Cahn, *Ethics*, 372.

[20] Ibid., 378-9.

restricted from voicing their beliefs or living the lives of their choosing because of the freedoms of the LGBT community.[21] Mill would argue that the infringement on Christianity could be legitimate if the lives they were choosing to live did not "impede upon others in society who already face marginalization."[22] Individuals who hold synonymous opinions to those of the Christians in this source "can't conquer their own misguided fears".[23] They are misguided because according to Media Matters in 2014, "not a single reported instance of voyeurism or other inappropriate behaviour has occurred in states with legal protections for trans people."[24]

It is important, however, to consider the legitimacy of the fears cisgender people have around transgender rights. Though people are willing to support this movement of acceptance and inclusion, they are genuinely fearful. People may feel poorly about themselves if they have this fear because they are not inclusive in their thoughts. Fear of the unknown is justifiable, but fearful individuals have a social responsibility to achieve further education about transgender persons. Individuals with those fears must still treat transgender people with respect and not be hateful or harmful towards them.[25] It is important to validate fears because the fearful may be more receptive to understanding the alternate argument if they feel appreciated.

However, policies should not be passed on fear alone because it is better to be a human being dissatisfied than a pig satisfied; better to be Socrates dissatisfied than a fool satisfied. And if the fool, or the pig, are of different opinions, it is because they only know their own side of the question. The other party to the comparison knows both sides... What means are there of determining, which is the acutest of two pains, or the most intense of two pleasurable sensations, except the general suffrage of those who are familiar with both?[26] Not only do cisgender individuals feel fear but so do transgender individuals, who have a greater ability to understand both sides of the question. As previously stated, there is no evidence of assault or inappropriate behaviour on the part of a transgender individual in a public washroom, yet a survey by TransPulse Project in 2010 show that out of a population of 500 transgender individuals, 20% had been assaulted, 13% fired from jobs and 18% refused a job.[27] "A Canadian study of gender diverse youth in Toronto" showed that 79% of students feel unsafe in at least one location on campus, and 78% feel unsafe at school in general.[28] 52% of the unsafe locations were the washrooms and 90% of students reported having bore witness to transphobic comments at school.[29]

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[21] "Editorial Exchange: Bathroom Wars."

[22] Ibid.

[23] Ibid.

[24] Ibid.

[25] David Buck and Taylor Obzud, "Context-Dependent Transprejudice: Attitudes Toward Transgender Individuals in Gender-Integrated and Gender-Segregated Settings," Psychology of Sexual Orientation and Gender Diversity 5, no. 1 (2017): 117-121, accessed May 29, 2018. doi:10.1037/sgd0000251.

[26] Cahn, Ethics, 368.

[27] "Editorial Exchange: Time to Guarantee Transgender Rights".

[28] Amelia Thorpe, "Where do we Go? Gender Identity and Gendered Spaces in Postsecondary Institutions," Antistasis 7, no. 1 (n.d.): 4, accessed June 12, 2018.

[29] Ibid., 4.

Alanna Richer wrote an article in the Chronicle-Herald in 2016 which contains a 17 year old transgender boy's struggle with the Supreme Court to be considered "a person like anybody else."[30] He must use a single-stall bathroom in his school, which is humiliating in front of his peers. Fortunately for him, the court of appeals decided that the policy at his school violated a federal law[31] and he was soon allowed to use the male washrooms. However, he states "high school was kind of ruined for me"[32] because his peers became aware of his situation and would still treat him differently. He would never 'pass', which means being "successfully recognized by others as one's desired gender."[33] This term is problematic because it emphasizes a binary that gender can be failed. Forcing children in a school setting to be humiliated is completely against Mill's harm principle in that the actions of others are directly harming the transgender individual. He states that "the moral rules which forbid mankind to hurt one another… are more vital to human well-being than any maxims,"[34] enforcing the idea that harm at the hands of another man is detrimental to the victim.

Social estrangement does not only affect children in primary schools, but people of all ages. When there are gendered spaces in public, individuals can be excluded and put into dangerous situations if they even appear nonconforming, whether or not they are transgender. Gender segregated locations create awkwardness, and a human necessity of using the washroom should be "safely and easily accessible by all persons,"[35] as well as normalized.[36] When access to gender neutral washrooms is scarce, people have to strategize when to use the washroom to avoid interactions and make sure it will be available. This can physically affect an individual restricting their bodily functions with "bladder or kidney infections,"[37] as well as play with their mental health and self-control.[38]

Though there are typically mental and physical health aids in schools, their familiarity with issues of gender identity is sometimes questionable or dated.[39] The responsibility then falls on the youth themselves to educate their healthcare provider, who may or may not be receptive.[40] Children with disorders of sexual development -- "any number of conditions

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[30] Alanna Richer, "Bathroom Fight Continues for Transgender Teen," *Chronicle-Herald Nova Scotia*, September 6, 2016, accessed June 12, 2018, https://search.proquest.com/docview/1817371453?accountid=14098.

[31] Ibid.

[32] Ibid.

[33] Shultz, *Trans/Portraits*, 199.

[34] Cahn, *Ethics*, 394.

[35] Thorpe, "Where do we Go?" 4.

[36] Lance Weinhardt, Patricia Stevens, Hui Xie, Linda M. Wesp, Steven A. John, Immaculate Apchemengich, David Kioko et al., "Transgender and Gender Nonconforming Youths' Public Facilities Use and Psychological Well-Being: A Mixed Method Study," *Transgender Health 2*, no. 1 (2017): 142, accessed May 29, 2018, doi:10.1089/trgh.2017.0020.

[37] Ibid., 149.

[38] Thorpe, "Where do we Go?" 7.

[39] Ibid.

[40] Ibid., 8.

affecting the hormonal, chromosomal, anatomical, or reproductive system of a person, causing them to fall outside of the typical definitions of male or female"[41] -- should not be teaching their healthcare providers how to assist them if they are to find any comfort in sharing a traumatic and personal experience. Health and safety should be of the highest importance within schools, and the mental health of transgender individuals must be monitored so closely because of the huge internal and external lifestyle changes, as well as hormone therapy. Injustice at Every Turn survey reported that 28% of transitioning youth will put off medical attention because of discrimination.[42] There are long waiting lists for treatment and surgeries, or to even be diagnosed.

The diagnosis is gender dysphoria, which comes from a mental health practitioner for access to hormone therapy and surgeries. Under the Standards of Care, which sets guidelines for treatment and surgeries, treatments can include but are not limited to gender-reassignment surgery, which is the reconstruction of genitalia, and hormone replacement therapy (HRT), which is used to achieve desired secondary-sex characteristics.[43] The term 'gender-confirmation surgeries' is more commonly used to encompass all procedures related to the affirmation of a desired gender. Transitioning children need active attention and participation from authority figures who are willing to understand and allow them to share their circumstances without judgement, and Mill would agree. He differentiates between the will, which is active, and desire, which is passive.[44] Though choice of bathrooms is an important step, society must actively protect vulnerable individuals from harassment and promote safety.

Transitioning youth are especially vulnerable to hate and self-hate, so inclusion within schools is a great place to start, encouraging self-esteem. With access becoming a policy at the OSSTF/FEESO Annual Meeting of the Provincial Assembly, schools are encouraged to provide gender neutral washrooms for students in locations that do not enforce isolation.[45] Hughes supports gender neutral washrooms, stating that "I don't know how many need it, but that is exactly why we need it. People shouldn't have to identify"[46] because that already isolates them. Though such change in schools is important, it cannot happen overnight. Time, dedication, and consideration are necessary to make legitimate and genuinely beneficial amendments to the school's structure. Mill argues that all people should have a right to equality of treatment, except when some recognized social expediency requires the reverse... Social inequalities which have ceased to be considered expedient assume the character, not of simple inexpediency, but of injustice, and appear so tyrannical that people are apt to wonder how they ever could have been tolerated - forgetful that they themselves, perhaps, tolerate other inequalities under an equally mistaken notion of expediency.[47] Now that transgender individuals are protected by legislation, it is unjust to discriminate.

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[41] Schultz, *Trans/Portraits*, 196.
[42] Thorpe, "Where do we Go?" 8.
[43] Schultz, *Trans/Portraits*, 196-9.
[44] Cahn, *Ethics*, 383.
[45] Hughes, "Gender," 9.
[46] Ibid., 10.
[47] Cahn, **Ethics**, 396.

Mill defines injustice as "taking or withholding from any person that to which he has a moral right, ... treating him worse than he deserves."[48] He says it is unjust to "deprive anyone of his personal liberty, his property, or any other thing which belongs to him by law."[49] It is unjust to be partial, which is "to show favor or preference to one person over another in matters to which favor and preference do not properly apply."[50] Some people are partial because they worry about transgender people crossing boundaries beyond the societal one.[51] A common fear is that transgender people are pretending to be transgender to get into the opposite washroom, or are confused or mentally ill.[52] Rebecca Stones found that, through her research, people are typically either unlikely to care that there is a transgender individual in the washroom, or unlikely to care enough to ask.[53] She states "he either uses our bathroom and makes MAYBE 30% of the girls uncomfortable, or he uses the boy's restroom and gets beat up... He didn't hurt or harass anyone."[54]

Not everyone would agree with Stones, and some people are open about being completely against transgender individuals using their washrooms. Her study has evidence stating wait until 12-year-old Susie comes face to face with Mr. Happy... children and those with the correct chromosomes should come first; If a penis is allowed to wander freely around a women's bathroom, do you really think that penis wants to stay tucked away, regardless of who it is attached to?... Maybe we should put penis and vagina on the bathroom doors, so HE will not be confused.[55] The speaker of this quote has convinced themselves that the mental portion of gender dysphoria is either non-existent or fake. It is not only a body part but an individual who, in most cases, is completely uncomfortable with being associated with that part of their body and would never intentionally make anyone aware that they have it.

This view of transgender individuals goes beyond the hypothetically situated comment above. In an interview with individuals from the US army, TV reporters explore the ill-received revision of Barack Obama's policy by Donald Trump in his attempt to ban transgender people from serving in the military. Trump claims that transgender people are "bad for morale and effectiveness [of military service and after consultation with his] ... generals and military experts, please be advised that the United States government will not accept or allow transgender individuals to serve in any capacity in the US military."[56] Though the source does not go into any detail regarding his reasoning for the ban, his words are prevalent in that they would affect a major portion of the citizens on this earth if they were put into effect, regardless of his reasons.

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[48] Cahn, *Ethics*, 386-9.

[49] Cahn, *Ethics*, 385.

[50] Cahn, *Ethics*, 386.

[51] Rebecca Stones, "Which Gender is More Concerned About Transgender Women in Female Bathrooms?" *Gender Issues* 34 (2017): 276, accessed May 29, 2018, doi:10.1007/s12147-01609181-6.

[52] Ibid., 282.

[53] Ibid., 285.

[54] Ibid.

[55] Ibid., 284.

[56] Transgender Persons, Interview by Sandie Rinaldo, *Trump Bans Transgender Troops*, CTV, March 24, 2018.

Policies supported and introduced by individuals who disapprove of the LGBT community undermine the laws President Barack Obama put into place under the Affordable Care Act (ACA).[57] Microaggressions that influence the transgender community include denigrating language, incorrect pronouns, generalizing experiences, dehumanization, mental health assumptions and denial of transphobia.[58] Senators of the US before Trump wanted to bring back the First Amendment Defense Act, which will protect same-sex marriage and relations from discrimination from the government.[59] However, the National Inmate study reveals that "LGBT people are disproportionately incarcerated, mistreated, and sexually victimized in US jails and prisons, suggesting systematic biases against LGBT people at various stages of the criminal justice system. ... [Such] discriminatory acts expose LGBT people to verbal harassment, physical violence, and ... death."[60] The National Transgender Discrimination Survey showed that transgender youth are 25 times more likely to attempt suicide than cisgender youth.[61] This would only be enhanced by the potential amendments from the Trump administration, driving a wedge between a large population of individuals and the state.

Mill believes that the destiny of a human being is having individual interests become inseparable from the state and people should be happy when the interests of other people align with those of the state.[62] Though happiness is the end goal, there are many ways to get there and individuals can be guided to choose the better path. Happiness is desirable for Mill, as are the virtuous actions that get an individual to happiness, which varies for each person.[63] All possible ingredients to happiness should be desired in and of themselves, as well as for the purpose of achieving happiness because "besides being means, they are a part of the end."[64] The most virtuous man for Mill is one who is "sacrificing their own greatest good for the good of others... [but] a sacrifice which does not increase ... the sum of total happiness, it considers as wasted."[65] The purpose of virtue is to multiply happiness, and this can be achieved through the willing choice of correct actions.

Mill is a realist, reminding his readers that in the pursuit of happiness, it is important "not to expect more from life than it is capable of bestowing."[66] The main components of satisfaction in life should be tranquility and excitement, where dissatisfaction comes from

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[57] Gilbert Gonzales and Tara McKay, "What Emerging Trump Administration Means for Lesbian, Gay, Bisexual, and Transgender Health," *Health Equity* 1, no. 1 (2017): 83-4, accessed May 29, 2018, doi: 10.1089/heq.2017.0002.

[58] Kevin Nadal. *That's So Gay! Microaggressions and the Lesbian, Gay, Bisexual, and Transgender Community* (York: Maple, 2013), 79.

[59] Gonzales, "What Emerging Trump," 84.

[60] Ibid., 85.

[61] Thorpe, "Where do we Go?" 7.

[62] Cahn, *Ethics*, 379-80.

[63] Ibid., 381.

[64] Ibid., 382.

[65] Ibid., 371-2.

[66] Ibid., 369.

selfishness and desire for mental cultivation.[67] Mill's philosophy is inductive, which he explains through the following quotation:

All action is for the sake of some end, and rules of action, it seems natural to suppose, must take their while character and color from the end to which they are subservient. When we engage in pursuit, a clear and precise conception of what we are pursuing would seem to be the first thing we need, instead of the last thing we are to look forward to.[68] He would rather his readers act towards a purpose than realize the purpose from the actions. He also recognizes that "the morality of an individual action is not a question of direct perception, but of the application of a law to an individual case"[69] because our moral faculty is a branch of reason. Though one should have a purposeful intent to an action, reason should adapt the action to meet the specific circumstances.

Mill puts forth the idea of an imperfect obligation, which means that "though the act is obligatory, the particular occasions of performing it are left to our choice."[70] If this alone were to be applied to the transgender washroom discussion, then people may assume that it is their choice whether or not to show acceptance to transgender individuals. However, with Mill's conception of happiness and the importance of the majority, as well as his idea that an individual's interests should align with those of the state, it is evident that active choice is important. Without the will and agency of choice, there would be no intent of kindness in action.

For Mill, ethics is "not so much a guide as a consecration of men's actual sentiments... it is only the business of ethics to tell us what are our duties, or by what test we may know them."[71] When people hold an opinion which is unpopular, such as that against the inclusion of transgender individuals, Mill says that they often do not will themselves to understand the opposing viewpoint. As previously stated, it is important to validate the fears of the population who are uncomfortable with transgender individuals using the binary washroom; however, it is not necessary to entertain those viewpoints which are derogatory without legitimate conception of the reason for their prejudice. Mill believes that "there exists no moral system under which there do not arise unequivocally cases of conflicting obligations;"[72] however, it is socially responsible and now legally just to understand both sides of an argument completely before choosing a side. In the case of transgender washrooms, if both sides were legitimately understood by everyone, there would be no debate.

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[67] Ibid., 370.
[68] Ibid., 364.
[69] Ibid.
[70] Ibid., 389.
[71] Ibid., 363-72.
[72] Ibid., 376.

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Marx versus Mill on the Meaning of Individual Liberty, and the Significance of Human Freedom in their Vision of the Community and Human History at Large

Cara Casavant

ℤ **Karl Marx and John Stuart Mill** were influential thinkers of their time and their works are still widely studied today. Marx was a scientist as well as a revolutionist. He believed in a universal law of human history, empirically derived through studying the economics of society. Marx also maintained that in the interest of everyone's individual freedom and ultimate happiness, there must be communist revolution, not simply change. Conversely, Mill determined that there were stages of human history, however they were not universal. He valued individual liberty and thought of humans as progressive beings, therefore he argued that societal change would occur over time. Both thinkers would agree that freedom is necessary for progress to occur, however, their ideas about what constitutes freedom differ greatly. The consequences for freedom are restrictions on individual liberty when, as for Marx, the structure of society determines our ideas, versus as for Mill, when our ideas determine the structure of society, embracing individual liberty and allowing for greater human freedom.

The age of revolution began with the French Revolution in 1789 and continued throughout Europe for more than half a century. There was political and social unrest, which led to uprisings and reform movements for societal change. During the nineteenth century, the Industrial Revolution brought about significant changes in the way people lived. Despite the overall increase in wealth, the birth of capitalism saw with it a growing gap between the rich and the poor classes, giving great distinction to the ruling class, Bourgeoisie.

Karl Marx was born a Jew in 1818 in Prussia (now Germany) to a middle class family. He was a highly intelligent child but his father, a lawyer, often worried that his son's unwavering stubbornness would get him into trouble some day (Berlin, 1963). As his father might have predicted, Marx was very outspoken throughout his life and often involved in movements, expressing his opinions radically. He attended university of Berlin, where he was influenced by the philosophy of G.W.F. Hegel, namely his dialectical theory of history (Berlin, 1963). While Marx was a journalist in Prussia, the authorities thought his writings to be too radical and wanted them censored, so he moved to France. Marx's political views were not well received there either, so he was forced out of France and went to London. There, Marx partnered with Frederick Engels, whom he'd met in France, on many works. One of particular importance, which they wrote to promote a political party, the International Communist League, was the *Manifesto of the Communist Party* (1848).

Following the French Revolution, the early 1800s marked the beginning of romanticism, a cultural movement that emphasized emotion, free expression and creativity. The Victorian period began in 1837 at the start of Queen Victoria's seven-decade reign over Great Britain. This era was characterized by refined social values and hard work, and was also a period of political concerns and reform movements. The Victorian era saw a shift toward romanticism, emphasizing freedom and diversity expressed through creativity in various ways.

John Stuart Mill was born in 1806 to a prominent family in London. His father was a philosopher, historian and economist who worked closely with Jeremy Bentham, the founder of Utilitarianism. A gifted child, Mill did not attend primary school but was rigorously educated by his father, whose aim was to create a genius to carry on the implementation of utilitarianism (Capaldi, 2012). Mill's stringent childhood was filled with intellectual work and his only exposure to other children was that of his siblings. His study of the works of Bentham influenced his distinct objective to create a just society, and marked the beginning of his ongoing desire and advocacy for social reform (Capaldi, 2012). These desires were snuffed out when as a young adult Mill suffered from severe depression, possibly from his restrictive childhood. He found inspiration for a renewed outlook on life in the works of romantic writer, William Wordsworth. Within the solace of the romantic movement, Mill recovered and returned to his quest for a just society with newfound joy. Mill became one of the most influential thinkers of the nineteenth century, and his work *On Liberty* (1859) is a well-known interpretation of liberty and individual freedom within society.

Marx saw economics as the kernel of society, maintaining that to understand economics was to understand society. According to Marx, the working class proletariat were exploited by the ruling class bourgeoisie, who owned the means of production. He explained in *Manifesto of the Communist Party* (1848), "…bourgeois private property is the final and most complete expression of the system of producing and appropriating products, that is based on class antagonisms, on the exploitation of the many by the few" (Marx & Engels, 1848, p. 1). Marx argued that the majority of people in capitalist society are not actually "personally acquiring property as the fruit of man's own labour, which property is alleged to be the groundwork of all personal freedom, activity and independence" (Marx & Engels, 1848, p. 1). He claimed that industry had destroyed that and that wage-labour for capital only provides property for the bourgeoisie, as their profits are a product of exploitation of the proletariat. Marx explained "The average price of wage-labour is the minimum wage, i.e., that quantum of the means of subsistence which is absolutely requisite to keep the labourer in bare existence as a labourer. What, therefore, the wage-labourer appropriates by means of his labour, merely suffices to prolong and reproduce a bare existence… the labourer lives merely to increase capital, and is allowed to live only in so far as the interest of the ruling class requires it" (Marx & Engels, 1848, p. 2). For Marx, the only way for everyone to have individual liberty and freedom was through communism, which meant the "abolition of private property" (Marx & Engels, 1848, p. 1). It seems like that would equate to the opposite of individuality and freedom, however according to Marx, capitalist society provides only perceived freedom, as it is only the bourgeois who are enjoying private property, at the expense of the majority. He declared "You are horrified at our intending to do away private property. But in your existing society, private property is already

done away with for nine-tenths of the population; its existence for the few is solely due to its non-existence in the hands of those nine-tenths. You reproach us, therefore, with intending to do away with a form of property, the necessary condition for whose existence is the non-existence of any property for the immense majority of society" (Marx & Engels, 1848, p. 3).

Class antagonism like this is the basis of Marx's universal law of human history, in which society progresses forward as a result of changes that are driven over time due to constant tensions between classes (Berlin, 1963). He maintained "The history of all past society has consisted in the development of class antagonisms, antagonisms that assumed different forms at different epochs. But whatever form they may have taken, one fact is common to all past ages, viz., the exploitation of one part of society by the other. No wonder, then, that the social consciousness of past ages… moves within certain common forms, or general ideas, which cannot completely vanish except with the total disappearance of class antagonisms" (Marx & Engels, 1848, p. 8). Marx claimed that it always comes down to the few and the many. Eventually people will end up mostly on one side, which is the engine that drives history. He argued "What else does the history of ideas prove, than that intellectual production changes its character in proportion as material production is changed? The ruling ideas of each age have ever been the ideas of its ruling class" (Marx & Engels, 1948, p. 7). Marx argued that to achieve progress, there must be individual liberty, which can only happen through abolishing classes within society, as it is only within community that individuality can develop. Marx maintained that man was a naturally communal being and that individuality developed out of the form of association of community, not the other way around (Megill, 1970). For Marx, "the history of man is the history of individualization of man" (Megell, 1970, p.384). This happens through the stages of history where each "existing totality" of societal conditions are developed from the "previously existing totality", which is called Marx's materialist theory of history (Sowell, p. 121). This is a scientific principle, as Marx determined that it could be applied to every society and therefore, also predict the future. Within this structure, "political revolutions become social evolutions in the democratic community" (Megill, 1970, p. 392). In a highly industrialized society, this community is where ones "true freedom is not a question of abstract natural rights, but is a way of living" (Megill, 1970 p. 386).

Mill believed in humans as naturally progressive beings and disagreed that society's social structure and ideals were determined by the forces of production. Mill maintained that progress was an orderly, gradual development brought about by social reform and popular opinion (Harris, 1956). In each stage of human history, man not only increased his intellectual capacity for reason, which is uniquely human, but we also developed our moral and emotional qualities. As a romantic, Mill believed these qualities could be cultivated through engaging in the arts, and together with increasing logic, would result in the "internal culture of the individual" necessary for "human well-being" (Harris, 1956, p. 164). This forward movement improved man's character and outward situation, but each stage was not inevitable and because it depended on "faith in man's power to change himself", it could not be considered a scientific principle for determining history or predicting the future (Harris, 1956, p. 171). Mill did not believe that removing social classes from society would help human kind to progress because

he saw value in capitalist society for enriching individuality. Mill considered economic free trade an essential condition for freedom because competitive enterprises would care about and understand their own businesses better than government would, and the amount of practical education that is learned from going about the "business of life" is significant in individual development (Harris, 1956, p. 161). Mill welcomed competition, a diverse marketplace of opinion and argued for "freedom of conscience as a right that can't be taken away" (Mill, 1859, p. 4). He held that it all comes down to the individual and the choices that they make. Man preserves what is working for him and makes changes where innovation provides improvement (Harris, 1956). Diversity in society and public opinion will either strengthen man's ideals or influence change, which would likely not happen in a Communist environment.

For Marx, individual liberty was suppressed by the existence of social classes. He explained "in bourgeois society capital is independent and has individuality, while the living person is dependent and has no individuality" (Marx & Engels, 1848, p. 2). Marx believed that to cultivate individuality, society needs to form a foundation that begins with the basic facts for everyone. He maintained that mankind must have our basic needs of food, shelter, etc. met before we can be free to express our individuality and partake in creative things like art, politics and religion. He explained "In bourgeois society, living labour is but a means to increase accumulated labour. In Communist society, accumulated labour is but a means to widen, to enrich, to promote the existence of the labourer" (Marx & Engels, 1848, p. 2) Marx believed that by implementing Communism, individuality would be maximized because the abolition of classes would "make the individual rather than the class the unit of variation" (Sowell, 19.., p. 120). However, it can be argued that forcing uniformity of any kind feels like the opposite of individuality or freedom. To take away the marketplace of capitalism would be taking away part of people's free will to do what they want and live the way they want to.

Like it was for Marx, self-realization of the individual was of utmost importance to Mill, however their ideas on the best way to cultivate it stand apart. For Mill, individuality has intrinsic value for mankind and each of us have fundamental rights and freedoms that should not be interfered with, by either the law or the general public (Harris, 1956). He argued "The only part of anyone's conduct for which he is answerable to society is the part that concerns others. In the part that concerns himself alone he is entitled to absolute independence. Over himself, over his own body and mind, the individual is sovereign" (Mill, 1859, p. 6). According to Mill people agreed or disagreed with government interference on a case by case basis and "the interference of government is with about equal frequency improperly supported and improperly condemned", so the extent to which government interference was proper was unclear (Mill, 1859, p. 5). Mill also asserted that public coercion can be greater than government force because it influences people morally. Humans need free speech and the marketplace of diverse ideas to cultivate their individuality. Mill upheld maximizing individual liberty from a utilitarian standpoint and argued that the government should interfere with individuals only in accordance with the harm principle, which supports protecting individual freedom without damaging others. Mill describes the harm principle as "The only end for which people are entitled, individually or collectively, to interfere with the liberty of action on any of their number is self-protection. The only purpose for which power can be rightfully

exercised over any member of a civilized community, against his will, is to prevent harm to others" (Mill, 1859, p. 5). Mill would be against Marx's communist ideas of taking care of everyone's basic necessities because he said "The person's own good, whether physical or moral, isn't a sufficient ground for interference with his conduct" (Mill, 1859, p. 5). Mill argued that freedom needs to be considered in accordance with utility because we must consider the consequences of individual action. He said "it must be utility in the broadest sense, based on the permanent interests of man as a progressive being" (Mill, 1859, p. 7). By this he means we need to consider the effects of our actions upon the progress of the Human Race as a whole (Strasser, 1984). The harm principle applies to physical harm, as one cannot be harmed by opinion. It only strengthens individuality because one's own ideas would either be reinforced or influenced by others'. It could be argued that utilitarianism could be oppressive to personal liberty because one must always consider others, however "as long as Mill is willing to allow others to pursue the pleasures which they prefer, then he cannot fairly be characterized as one who would limit others' freedoms" (Strasser, p. 66). This means Mill would support individuals doing whatever they want, as long as they're not hurting anyone else, which is about as free as you can be as a civilized person in society.

For Marx, the path to freedom by way of abolishing classes was by eliminating private property through communist revolution. He proclaimed that the proletariat needed to recognize themselves as a class, rise up and overthrow the bourgeoisie. There could be no restructuring at this point, only revolution because capitalist society is too far underway and the thread of its conditions embedded in history. Marx explained "The selfish misconception that induces you to transform into eternal laws of nature and of reason, the social forms springing from your present mode of production and form of property – historical relations that rise and disappear in the progress of production – this misconception you share with every ruling class that has preceded you" (Marx & Engels, 1848, p. 5). Marx was advocating revolution for social, not political change. He claimed that the state could then disappear because it would no longer be the tool of the oppressing class if there were no more class struggle (Megill, 1970). In Marx's thinking, different social relationships would come about if we changed the way we produced goods and met our needs. He explained "In the place of the old bourgeois society, with its classes and class antagonisms, we shall have an association, in which the free development of each is the condition for the free development of all" (Marx & Engels, 1848, p. 10). While it sounds appealing for everyone is society to have equal opportunity for individual freedom, Marx's declaration that the bourgeois class must be "swept out of the way, and made impossible" is a violent and ethically questionable way of achieving it.

Mill also supports individuals' freedom to unite, however from his utilitarian perspective, it's in a peaceful way. According to Mill, to be free in society in so far as an individual's conduct directly and immediately affects only himself, one must have three provinces. They are to think how one wants, live how one wants, and to be able to gather together, all without harming others. Mill proclaimed that "no society in which these liberties are not mainly respected is free, whatever form of government it has; and none is completely free in which they don't exist absolute and unqualified." (Mill p. 8). The extent to which Mill advocates freedom of

the individual could be seen as extreme, just as Marx's approach is considered suppressive. However, it is more desirable to live as a sovereign individual in a free environment, without violence and with the choice to come together as we wish, as opposed to Marx's idea of freedom built on conformity. "The only freedom that deserves the name is the freedom to pursue our own good in our own way, so long as we don't try to deprive others of their good or hinder their efforts to obtain it" (Mill p. 8).

Mill and Marx shared the idea of the importance of individualization, however their views on how to cultivate it differed significantly. Marx believed that it was cultivated from without; through living within the community of a classless society. Mill thought individualization was cultivated from within; living as a sovereign individual in a free environment. Marx's universal law of human history reflected progress occurring as a result of class antagonism, whereas Mill believed in orderly aggregate progress occurring over time, depending on conditions for human reason. According to Marx, the development of individual liberty for ultimate freedom had to occur through abolishing private property by communist revolution. Mill, on the other hand, argued for the expression of freedom from a utilitarian point of view, through his harm principal. He welcomed the marketplace of public opinion as well as capitalism, to help humans progress as free individuals. While Marx's notions for equality within a classless society could be an arguable way to promote freedom for all, it suppresses more freedoms than it provides. Mill's contrasting ideas of increasing liberty as sovereign individuals and in turn determining the structure of society, provides greater opportunity for freedom for all.

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John Stuart Mill's Utilitarianism: The Ethics of Pornography

Richard Keli Gowan

⁎ **In Utilitarianism,** John Stuart Mill (1806-1873) declares: "The creed which accepts as the foundation morals [sic] 'utility', or the 'greatest happiness principle', holds that actions are right in proportion as they tend to promote happiness; wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure and the absence of pain; by unhappiness, pain and the privation of pleasure."[1] This is our starting point for understanding Mill's conception of the titular moral theory; however, it belies the intricacies which underlie his framework for judging right and wrong action. As a normative theory it does so intrinsically, but further investigation reveals that Mill espoused judging actions not simply for the transient pleasures they bring, but in order to promote happiness as an end.[2]

In the case of pornography, a superficial interpretation of Mill's principle might advocate for the pleasure it elicits to be weighed in favour of its consumption as morally good, in and of itself. The position taken by radical-feminists suggests that viewing pornography increases incidence of violence towards women, making censorship a necessity.[3] The case against censorship is often framed as a right to liberty, not based on pornography's inherent moral value, but a perceived transgression in restricting its availability.[4] As Mill's own writings on liberty are often associated with this stance, the question then arises: how would he view pornography from an ethical standpoint?[5] With a better understanding of the censorship debate, a nuanced definition of pornography itself, and further exploration into the writings of John Stuart Mill, I argue that utilitarianism would be positively disposed to the view that pornography is morally wrong, in that it does not contribute to happiness as defined by Mill.

The definition of pornography as "the depiction of erotic behavior (as in pictures or writing) intended to cause sexual excitement", can encompass a broad spectrum of sources

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[1] John Stuart Mill, "Utilitarianism," in *Ethics*, ed. Steven M. Cahn and Peter Markie (New York: Oxford University Press, 2016), 366.

[2] Henry R. West, *Mill's Utilitarianism: A Reader's Guide* (London: Bloomsbury Publishing PLC, 2007), ProQuest Ebook Central, 37.

[3] Robert Jensen, "Abusive Images Belittle Women, Men, and Sex," in *Philosophy and Sex*, ed. Robert B. Baker and Kathleen J. Wininger (New York: Prometheus Books, 2009), 458.

[4] David Dyzenhaus, "John Stuart Mill and the Harm of Pornography," *Ethics* 102, no. 3 (1992): 534-5, accessed October 2, 2017, http://www.jstor.org/stable/2381838.

[5] Ibid., 536.

including mainstream advertising.[6] It is in our benefit to narrow the scope of this definition for the purpose of highlighting the kind of harm in which we are interested.[7] Robert Jenson describes pornography as "an industrial media product primarily sold to men in a male-dominant culture for use as a masturbation facilitator."[8] With this in mind, we shift our focus away from sexually explicit or suggestive material whose primary purpose is to sell something (often unrelated to sex itself) to that in which sex itself is the commodity. This kind of pornography is mass produced and "rigidly formatted" in order to "[maximize] profit."[9] As men compose the vast majority of its consumers, "the material reflects a hyper-masculine sexual imagination rooted in a conventional conception of masculinity: sex as conquest and the acquisition of pleasure through the taking of women."[10] I believe this description accurately reflects the character and purpose of the pornography we are interested in highlighting.[11] Furthermore, we can delineate pornography via divisions that better reflect the degrees to which this hyper-masculine sexual imagination is expressed. The Meese Commission[12] subdivides pornography into one of four categories: violent, nonviolent but degrading, nonviolent and nondegrading, and that in which children are the focus.[13] Given the prohibition on child pornography, we will consider the harm it poses as established and therefore no further consideration is required. Of the remaining three categories, violent and nonviolent but degrading make up the majority of pornography produced.[14] These categories fall under what Judith M. Hill has labelled Victim Pornography, which she defines in "Pornography and Degradation" as:

> the graphic depiction of situations in which women are degraded by sexual activity, viz., (a) situations in which a woman is treated by a man (or by another woman) as a means of obtaining sexual pleasure, while he shows no consideration for her pleasure or desires or well-being, and (b) situations in which a woman is not only subjected to such treatment, but suggests it to the man in the first place.[15]

Finally, these scenarios are presented as entertainment only and lack any commentary to suggest otherwise.[16] It is not clear whether Hill intends her definition to be contingent on both (a) and (b) occurring simultaneously; for our purposes I will presume that they do not, as

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[6] "pornography," *Merriam-Webster*, accessed November 6, 2017, https://www.merriam-webster.com/dictionary/pornography.

[7] This does not exclude the overt forms of pornography that pervade our culture (such as advertising) from having a harmful effect.

[8] Jensen, "Abusive Images Belittle Women, Men, and Sex," 457.

[9] Ibid.

[10] Ibid.

[11] Ibid., 458.

[12] Tasked under the Reagan administration to probe the issue of pornography's potential harm to American society.

[13] "The Attorney General's Commission on Pornography," in *Disputed Moral Issues*, ed.

[14] Judith M. Hill, "Pornography and Degradation," in *Disputed Moral Issues*, ed. Mark

[15] Ibid.

[16] Ibid.

a fictional rape scene can preclude the woman suggesting her rape to the perpetrator. I will also suggest that point (a) include that the perpetrator can show concern for the woman's pleasure or desires and still perform violent or degrading acts on her, should the scenario intend to suggest that she derives one from the other. With this expanded interpretation of Victim Pornography—encompassing the depiction of any violent and nonviolent but degrading scenarios produced for the purpose of satisfying the sexual needs of its consumers—we have given the kind of pornography germane to our argument a definition sufficient enough to illustrate the scope of its character: a character that finds itself at odds with radical-feminism.

The pro-censorship position is predicated on the belief that pornography objectifies women and increases their risk of exposure to violence[17] and sexual coercion.[18] While research into a causal link has produced contradictory results, studies like the Confluence Model of sexual aggression do suggest a correlation when pornography is considered in conjunction with variables such as sexual promiscuity, hostile masculinity and sex drive.[19] At most, the study has led researchers to "speculate that pornography may activate, reinforce, and normalize sexual aggression through the proposed degrading, dehumanizing, objectifying, and dominating scenes depicted in such media".[20] Still, some pro-censorship voices have developed stronger convictions from the research they have reviewed, referring to them as hard-evidence of the harm pornography can impose on woman.[21] While the Meese Commission draws the conclusion that "there is sufficient evidence linking both violent and nonviolent but degrading pornography to violence against women",[22] Strossen rejects these findings and states that even if a causal link were found, there is no evidence "that the effective suppression of pornography would significantly reduce exposure to sexist, violent imagery; [or] . . . that censorship would effectively suppress pornography."[23] Strossen takes a liberal view that while censorship does more harm than good, driving pornography underground robs individuals of the opportunity to form their own opinions on personal and social values.[24] Liberal-feminists reject censoring pornography on grounds that include: an interpretation of the "harm principle which permits governments so to act only in order to protect the physical integrity of individuals"; that "pornography is a matter of private . . . morality", a domain of liberty for each individual to maintain; and that censorship would inhibit freedom of expression, which is harmful in itself.[25]

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[17] Jenson, "Abusive Images Belittle Women, Men, and Sex," 458.

[18] Jodie L. Baer, William A. Fisher and Taylor Kohut, "Is pornography use associated with anti-woman sexual aggression?" The Canadian Journal of Human Sexuality 24, no. 2 (2015): 160.

[19] Ibid., 160-61.

[20] Ibid., 161.

[21] Jenson, "Abusive Images Belittle Women, Men, and Sex," 458; "The Attorney General's Commission on Pornography," 131.

[22] "The Attorney General's Commission on Pornography," 131.

[23] Nadine Strossen, "Why Censoring Pornography Would Not Reduce Discrimination or Violence against Women," in Disputed Moral Issues, ed. Mark Timmons, (New York: Oxford University Press Inc., 2011), 138.

[24] Ibid., 145.

[25] Dyzenhaus, "John Stuart Mill and the Harm of Pornography,"534-5.

The censorship debate evokes questions of what constitutes harm, and whether it is more harmful to limit liberty by censoring something which may itself be harmful, but falls into a sphere of personal choice whose protection supersedes other considerations.

Given the 'metrics' of the above debate (its arguments for potential harm on both sides and the lack of conclusive evidence to support either) measuring pornography on moral grounds becomes an exercise in weighing censorship against liberty. However, ours is to prove that pornography is immoral based on its effects on happiness. To that end, there is another approach we can take which conforms to both a radical-feminist stance and to which Mill's utilitarianism would be amenable; that pornography contributes to a diffuse message which reinforces the continued "subordination of woman to men" in society,[26] and inhibits "articulating and living out conceptions of the good life" for the former.[27] Overt depictions of violence and degradation in pornography propagate this message of male dominance through "superior physical force",[28] but what radical-feminists find most egregious is the way it is validated by insinuating consent: "it is the portrayal of consent, not of force and coercion, that legitimizes inequality and subordination. 'Consensual' pornography makes the inequality that already exists between men and women appear legitimate as well as sexy."[29] Neither is the sexual nature of the content taken issue with per se; it is the eroticizing of inequality through the "portrayal of women as the perpetual objects of male sexual desires."[30] To uncover a utilitarian argument against pornography on these grounds we must dive further into Mill`s writings on happiness and how to attain it.

Mill believes there needs to be "one fundamental principle" from which all moral decisions can be made (or a prioritizing of principles, should there be many) and without it morality is based merely on sentiment.[31] The principle he promotes seeks an end that is good a posteriori, and requires said principle to guide the moral agent in evaluating which actions to take towards this end.[32] The quote we opened with is Mill's first principle: "that actions are right in proportion as they tend to promote happiness; wrong as they tend to produce the reverse of happiness."[33] By happiness is meant the final end of all action, but what is it comprised of and what are the means to achieving it? Mill uses pleasure as a vehicle for happiness[34] and quickly distinguishes its quality: "It is quite compatible with the principle of utility to recognize the fact that some kinds of pleasures are more desirable and more valuable than others."[35] He writes that "[human] beings have faculties more elevated than the animal appetites and, when once made conscious of them, do not regard anything as happiness

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[26] Ibid., 535.
[27] Ibid., 536.
[28] Ibid., 535.
[29] Ibid., 536.
[30] Ibid., 535.
[31] Mill, "Utilitarianism," 364-5.
[32] Ibid., 365.
[33] Ibid., 366.
[34] Ibid.
[35] Ibid., 367.

which does not include their gratification."[36] These faculties grant us the ability to experience "pleasures of the intellect, of feelings and imagination, and of the moral sentiments [which have] a much higher value as pleasures than . . . those of mere sensation."[37] By happiness then he does not intend "a continuity of highly pleasurable excitement": it is "not a life of rapture, but moments of such, in an existence made up of few and transitory pains, many and various pleasures, with a decided predominance of the active over the passive".[38] Mill favors the character of those who pursue their higher faculties,[39] which is done out of "a sense of dignity . . . so essential . . . [to] the happiness of those in whom it is strong, that nothing which conflicts with it could be otherwise than momentarily an object of desire to them."[40] West believes Mill "appeals to a sense of dignity" as "a source of a 'second-order' pleasure or pain", conforming to a hedonistic interpretation.[41] However, "the definition of happiness as pleasure is not Mill's own final view, but a characterization of past views that Mill seeks to modify in significant ways."[42] Furthermore, scholarly work has shown that pleasure is not exclusive to Mill's consideration of what is desirable; that hedonism is not the only value worth accounting for.[43]

In "Happiness and Freedom: Recent Work on John Stuart Mill", Robert W. Hoag uncovers in writings on Mill a "unified concept of happiness that is hierarchical, pluralistic, and essentially non-hedonistic."[44] Hoag notes that Mill sees pleasure as valuable "in virtue of their relation to happiness", with those "more crucial to happiness" having a higher value.[45] The value of a pleasure then can vary depending on the weight given it by those in whom it is desired, and there are many of which happiness is constituted,[46] some as a part of happiness itself while "all other things being only desirable as means to that end."[47] For example, money's value is in what it can buy, but in many instances people desire it for itself: "not for the sake of an end, but as part of the end."[48] In other words, instead of using money to attain happiness, money itself has become "a principle ingredient of the individual's conception of happiness": having money brings happiness regardless of the actual purchase of a good or service.[49] Finally, some desires are non-hedonistic, valued irrespective of the pleasure they illicit.[50] As stated previously, Mill sees mental pleasures as having a higher value than physical; however, the

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36 Ibid.
37 Ibid.
38 Ibid., 369.
39 Ibid., 368.
40 Ibid.
41 West, Mill's Utilitarianism, 45-6.
42 Robert W. Hoag, "Happiness and Freedom: Recent Work on John Stuart Mill," Philosophy & Public Affairs 15, no. 2 (1986): 191, accessed October 2, 2017, http://www.jstor.org/stable/2265386.
43 Ibid., 190.
44 Ibid., 189.
45 Berger, 38, quoted in Ibid., 191.
46 Ibid., 195.
47 Mill, "Utilitarianism," 381.
48 Ibid., 382.
49 Ibid.
50 Hoag, "Happiness and Freedom," 195.

availability of these pleasures is contingent on "certain social conditions".[51] For Mill, liberty is an important desire "tied to 'a sense of dignity'", for it is indispensable to both individuality and "choosing one's own life plan".[52] The autonomy it provides allows for an expanded selection of options available to an individual, deliberated on through rational thought, so that "his actions express principles and policies which he has himself ratified by a process of critical reflection".[53] The value of autonomy in this respect is non-hedonistic, and yet it is still a part of "a diverse plurality of things as an inclusive end."[54] With the primary elements of Mill's principle given the proper amount of attention (happiness composed of a plurality of pleasures whose value are not exclusively hedonistic and measured qualitatively) we are in a better position to judge the utility of pornography. However, the application of Mill's ethical theory offers another caveat to our quandary, especially in light of the social context in which pornography's influence is disseminated.

An important factor in utilitarianism's efficacy is how the individual relates to the rest of society. For one's own happiness there is required "a progressive state of the human mind [where] their improvement is perpetually going on".[55] Of the external factors that may bring misfortune, Mill accounts for a lack of personal care as cause for at least a portion, while "bad laws or subjection to the will of others [can deny] the liberty to use . . . [those] sources of happiness within . . . reach".[56] It is the influence on others that we are interested in here. Mill declares "of the utilitarian standard":

> [it] is not the agent's own greatest happiness, but the greatest amount of happiness altogether; and if it may possibly be doubted whether a noble character is always the happier for its nobleness, there can be no doubt that it makes other people happier, and that the world in general is immensely a gainer by it.[57]

The emphasis is on the noble character in whose "general cultivation"—so that even those who do not attain it can be benefitted by those who have—utilitarianism reaches its end: "the end of human action" and the "standard of morality".[58] Mill rejects the notion that an individual's motivations are what give an action its moral character.[59] They are, only to the extent that one must factor in any potential negative harm—either directly or indirectly—to others.[60] In other words, an action taken by an agent out of selfish motivation can still have utility if it contributes to the happiness of society as a whole. Mill prescribes that:

> laws and social arrangements should place the happiness or . . . interest of every individual as nearly as possible in harmony with the rest of the whole;

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[51] Ibid.
[52] Ibid., 193.
[53] Gray, 72, quoted in Ibid., 194.
[54] Ibid., 192.
[55] Mill, "Utilitarianism," 375.
[56] Ibid., 370-1.
[57] Ibid., 369.
[58] Ibid.
[59] Ibid., 372.
[60] Ibid.

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and, secondly, that education and opinion . . . establish in the mind of every individual an indissoluble association between his own happiness and the good of the whole, . . . that a direct impulse to promote the general good may be in every individual one of the habitual motives of action.[61]

Mill does not intend that general utility come about as an externality, but directly through "the social feelings of mankind—the desire to be in unity with our fellow creatures".[62] This desire is a natural part of the human condition; we are unable to conceive of ourselves as independent of the body in which we are a member.[63] This leads to a "strengthening of social ties, and all healthy growth of society, [giving] to each individual a stronger personal interest in practically consulting the welfare of others, . . . [and] leads him to identify his feelings more and more with their good".[64] Consequently, "the happiness which forms the utilitarian standard of what is right in conduct is not the agent's own happiness but that of all concerned."[65] Here we see that considering another's happiness is obligatory: a responsibility built on altruistic inclinations which see our happiness as inextricably linked to the utility of those with whom we share our society. We are now adequately acquainted with the parameters relevant to the issue we wish to apply Mill's utilitarianism.

Mill writes in favor of "perfect equality" between the sexes, but in spite of the legal and cultural progress made since his time, the root cause of inequality remains the same today as it did then: social relationships based on subordination through "the superior physical power of males".[66] Women are taught to submit to others in order to protect a male sphere of influence that is self-serving, hidden from public scrutiny and viewed as natural by both the oppressor and oppressed.[67] For Mill, this is made worse by its being "a relationship of forced inequality . . . made to appear consensual."[68] Dyzenhaus' argument is congruent with this, stating that pornography perpetuates the subordination of women through its portrayal of "physical coercion" made to "appear sexually desirable".[69] The notion of consent creates a "false consciousness" which ultimately restricts the freedom women have to act as "autonomous individuals," a key element in acquiring happiness through "articulating and exploring their own conceptions of the good life."[70] The ability of an agent to choose for themselves what is most desired to bring about their own happiness is fundamental to Mill's liberalism, thus a system that does not allow for the individual to make a decision autonomously—that teaches them to act against their own interests—is harmful.[71] In order for women to make choices for

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[61] Ibid.
[62] Ibid., 379.
[63] Ibid.
[64] Ibid., 380.
[65] Ibid., 372.
[66] Mill, quoted in Dyzenhaus, "John Stuart Mill and the Harm of Pornography," 538.
[67] Ibid., 538-9.
[68] Ibid., 539.
[69] Ibid., 540.
[70] Ibid., 539-40.
[71] Ibid., 540-1.

themselves they "need to discover their true nature under conditions of perfect equality"—current views "the construct of a regime of inequality" which strives to appear as naturally occurring.[72] Mill's concern is with what he calls "social tyranny", a form of coercion worse than political in so far as the latter is "transparent to the oppressed", while the former is "disguised by our habituation" and consent to it.[73] Dyzenhaus states that in light of this, Mill would see the "power exercised by men over women through pornography as a pernicious kind of social and moral coercion" causing harm to one's interests, which Mill believes (as in the case of autonomy) ought to be protected as a right.[74] Without equality, not only are women unable to freely explore what best suits them in their pursuit of happiness, but "the quality of men's experience both of women and themselves" suffers when half of the population is inhibited from fully contributing towards society's general utility.[75] Equality then is an asset for the disadvantaged and those occupying a position of privilege, but what of the alleged harm to free speech, self-expression and personal choice in restricting pornography?

Anti-censorship advocates invoke Mill on the grounds that his harm principle supports a liberal defense of the right to produce and consume pornography.[76] Their interpretation of his liberal theory places "emphasis on the requirement for substantial, direct evidence, beyond reasonable doubt, . . . enshrined as an essential element of the 'harm principle' [which is] routinely utilized in arguments against the regulation of pornography."[77] The polemic nature of Mill's writing may be one reason for these interpretations,[78] however, in "Would John Stuart Mill have Regulated Pornography?", McGlynn and Ward argue that regulation is something he would support.[79] McGlynn and Ward note that Mill "was an 'ethical liberal' with a very particular vision of what constitutes the 'good' life, and the steps . . . society should to take to promote such ideals."[80] Mill believes that society (including its laws) should reinforce and promote the attainment "of the good life which [is] necessary to promote happiness."[81] Of liberty, his primary concern is the autonomy required for "self-realization" through moral and intellectual improvement.[82] On the other hand, sex is viewed as an "animal [appetite]" whose preference is 'eclipsed' by intellectual desires.[83] "Sexual freedom" does not enter into the sphere of liberty protected by Mill; this 'privilege' is afforded only to the higher pleasure whose pursuit is obfuscated by a sex distracted mind.[84] Mill did not leave behind a thorough

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[72] Ibid., 542.
[73] Mill, quoted in Ibid., 544.
[74] Ibid., 545.
[75] Ibid., 551.
[76] Ibid., 534-5.
[77] Clare McGlynn and Ian Ward, "Would John Stuart Mill have Regulated Pornography?" Journal of Law and Society 41, no.4 (2014): 503.
[78] Ibid., 504.
[79] Ibid., 500.
[80] Ibid., 508.
[81] Ibid., 509.
[82] R. Bellamy, Liberalism and Modern Society (1992), 22, quoted in Ibid., 508.
[83] Ibid., 509.
[84] Ibid., 518.

definition of harm,[85] but as a utilitarian it is implied that what he believed to be harmful is that which also brings "pain and the privation of pleasure."[86] The harm of pornography then is sex as depicted "in a way designed to reinforce misogynistic stereotypes, portraying women as base and deserving of abuse, as wanting and asking for abuse".[87] Its message is focused on "subordination, humiliation, and associated harms . . . directly [conflicting] with the ideas of equal worth and equal protection that are basic to a liberal social order."[88] The risk of harm is justification enough for Mill to suggest legislative protection to "prevent wrongdoing".[89] By applying the harm principle as a preventative measure, contemporary arguments against censorship become unfounded as "any precautionary action can be justified . . . necessary to promote and protect the public interest with the aim of preventing and deterring harm."[90] In light of this, the harm in limiting liberty is outweighed by the harm to those "whose interests are thereby diminished" by pornography.[91] McGlynn and Ward are in accord with Dyzenhaus when highlighting Mill's desire to redress the inequality forced upon women by a patriarchal society;[92] that this sentiment makes him an ally for radical-feminists and an "advocate of 'perfect equality', condemning male dominance and challenging many forms of violence against women."[93] In the case of pornography and its eroticizing the consent of male dominance, Mill would be opposed on the grounds that "sexual equality [is] fundamental to utilitarianism; it [is] the means by which to ensure the greatest happiness for the greatest number."[94]

The utility of pornography is not measured by the pleasure it elicits in articulating sexual fantasies, or by bringing its consumers to orgasm. For John Stuart Mill, these would be discounted as base desires that distract from those elements which brings happiness as both an end and the standard of morality. The means to happiness are the higher pleasures whose qualities are more desirable and not in every instance valued hedonistically. Mill's utilitarianism finds moral that which brings happiness not exclusively to one's self, but contributes to the utility of society as a whole, making the consideration of how one's actions affect others obligatory. From this perspective I believe pornography to be unethical. Pornography supports inequality by propagating a message that women are subordinate to men, that they desire to submit, and that this state is a reflection of their true nature. Under these conditions women are unable to pursue without restraint that which they have decided for themselves is best for their own happiness. Equality on these terms is not about disparate income levels or deconstructing gender roles: it is freedom from a coercive influence that indoctrinates us to believe that who we are is the natural outgrowth of social constructs that are arbitrary, and in no way related to our virtue.

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[85] Ibid., 506.

[86] See note 1 above.

[87] M. Nussbaum, Hiding from Humanity - Disgust Shame and the Law (2004), 139, quoted in McGlynn et al., "Would John Stuart Mill have Regulated Pornography?" 521.

[88] Ibid.

[89] Ibid., 506-7.

[90] Ibid., 520.

[91] Ibid., 519.

[92] Ibid., 510.

[93] Ibid., 512.

[94] Ibid., 513.

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For my Mom.

Discipleship and the Christian life: The New Evangelization as response to the call for Active Participation and the Universal Holiness from Vatican II

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⁖ **The term *New Evangelization*** in modern culture is a buzzword with little to no definitive meaning or scope. This paper, however, seeks to properly attribute the movement not to Pope John Paul II who coined the term, but to the Second Vatican Council and its universal call to holiness for all peoples. Many fruits came out of the Second Vatican Council, The twenty-first ecumenical council in the Catholic Church. Perhaps one of the most incredible things a person can notice when reading the sixteen documents that the council produced is the theme echoed throughout and explicitly stated in paragraph fourteen of *Sacrosanctum Concilium*, (the Dogmatic Constitution on the Sacred Liturgy). That theme is the earnest desire, and need, for all faithful because of their right and duty by reason of baptism to actively participate in the Catholic faith.[1] Active participation focuses not only on the Mass, as a liturgy and place of communal divine worship, but also active participation in the Christian life. One might say that this call for active participation in the Christian life has existed since the time of Jesus. They might look to the Christian Scriptures, to the Gospel of Matthew and the ending section called "The Great Commission," in which Jesus tells his disciples to go out to all nations or point out some of the great missionaries who brought the Christian faith to Asia or the Americas. While these are great examples of a lived Christian faith, the active participation that this paper will address comes in the form of the *New Evangelization*. In seeking to define what the *New Evangelization* is, this paper will identify the roots of the movement and trace the significant Vatican documents that advise the Church in its modern missionary activity, ending with the development of modern Catholic missionary organizations that embrace the call to active participation in faith. The *New Evangelization* is not so much a new movement, but a new approach to the conversion and reconversion of Catholics in previously Christian nations utilizing all Christians and the universal call to holiness to through active participation in the Christian life and discipleship.

Evangelization means to preach and share the Gospel. The New Evangelization does not so much present a new Gospel but the same Gospel that Christians have always preached, that Jesus died and was raised on the third day for the salvation of souls. It is, however, "new"

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[1] Vatican Council II, *Sacrosantcum Concilium*, 1963, 14. http://www.vatican.va/archive/hist_councils/ ii_vatican_council/documents/vat-ii_const_19631204_sacrosanctum-concilium_en.html.

because the Gospel is being preached to previously Christian nations and is presented in a new way. That new way being through the use of modern media, the focus on discipleship, and other methods that are culturally appropriate because situations and cultures change over the course of history.[2] One may look at the New Evangelization from a number of different lenses and come to a different understanding of what it is. This is because it does not seek uniformity in the method, rather, unity in truth. There are, however, three primary goals of the New Evangelization. These are first, to "provide the opportunity for people to encounter, or re-encounter Christ," secondly, the transformation of culture, bringing awareness to social justice issues, and thirdly, love, to build a society that because of a personal relationship with Christ is transformed.[3] All of these goals are led by the Holy Spirit who revives the Church.[4]

The Second Vatican Council, which ran from 1962 to 1654 had the goals of *ressourcement* - that is the return to the sources, those of the early church, and *aggiornamento* – a bringing up to date so the Church could read the "signs of the time."[5] A marking of the early Church is the discipleship and community in which Christians lived. Christianity spread through communities of believers, and it remains true today that a disciple cannot be formed in isolation. That is because "Discipleship is, however, most clearly characterised by an inner conversion and a close friendship with Christ as evidenced by a deeply sacramental life."[6] The sacramental life means communion with Christ through the Eucharist and the celebration of the mass. Community is found in the parish and in the greater body of Christ. The new evangelisation then is a return to the idea of discipleship and stems from the belief in and relationship with Jesus Christ. Like the disciples of the early church, modern disciples need to sacrifice and seek support from the community. Jesus himself tells his apostles in the Gospels of Luke[7] and Matthew[8] to pick up their cross and follow him. Richard Rymarz, in his article *The New Evangelization in an ecclesiological context*, states "Discipleship in our modern context is marked by service to the poor and needy as well as living in harmony with the Gospels."[9] He goes on to say that "those who are disciples of Jesus are also much more likely to embrace the missionary aspect of their calling and engage in evangelization since this flows from their communion with each other and with Christ."[10] The modern-day evangelist may have different

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[2] Perry J. Cahall, 2013, "The Nucleus of the New Evangelization," *Nova Et Vetera*, 11, no 1, ALTA Catholic Periodical and Literature Index, EBSCOhost (accessed October 19, 2017), 41.

[3] Ibid., 46-48.

[4] Pope Benedict XVI, *Motu Proprio Ubicumque et Semper*: Apostolic Letter, Libreria Editrice Vaticana, 2010, http://w2.vatican.va/content/benedict-xvi/en/apost_letters/documents/hf_ben-xvi_apl_20100921_ubicumque-et-semper.html.

[5] John W. O'Malley, *What Happened at Vatican II*, (Cambridge, MA: Harvard University Press, 2010) 38-40.

[6] Richard Rymarz, 2011, "The New Evangelization in an Ecclesiological Context", *Heythrop Journal* 52, no.5, ALTA Catholic Periodical and Literature Index, EBSCOhost (accessed October 19, 2017), 780.

[7] Luke 9:23 NAB

[8] Matthew 16:24

[9] Rymarz, "The New Evangelization in an Ecclesiological Context," 780.

[10] Ibid.

ways of sharing the faith than the twelve apostles but still require sacrifice and the call from God that stems from an encounter with Jesus Christ.

The idea that disciples, followers of Christ, are formed in a community is why *Lumen Gentium* (the Dogmatic Constitution on the Church), is one of the primary documents that the New Evangelization draws upon from the Second Vatican Council. *Lumen Gentium* chapter five is titled "The Universal Call to Holiness in the Church" This call mirrors the call for active participation in the liturgy that is found in *Sacrosanctum Concilium* (the Dogmatic Constitution on the Sacred Liturgy).[11] Paragraph five of *Lumen Gentium* says that "the mystery of the holy church is already brought to light in the manner of its foundation. For the Lord Jesus inaugurated his church by preaching the good news of the coming of the kingdom of God."[12] This is further explained and expressed in *Ad Gentes*, (the decree on missionary activity in the Church), when the council fathers wrote, "The church is by its very nature missionary,"[13] thus, meaning there is an "obligation to proclaim the faith and salvation that comes from Christ."[14] There is a missionary spirit that perpetuates the body of Christ, as a communion of people united to one another in the sacraments. Pope Paul VI says that "Evangelizing is, in fact, the grace and vocation proper to the Church, her deepest identity. She exists in order to evangelize, that is to say, in order to preach and teach, to be the channel of the gift of grace, to reconcile sinners with God, and to perpetuate Christ's sacrifice in the Mass, which is the memorial of His death and glorious resurrection."[15] Active participation and the universal call to holiness compliment one another because when one is actively engaged in the celebration of the Mass and the Christian life of discipleship, they are pursuing the call God has given them to holiness.

When discussing the New Evangelization, a point of interest is that *Lumen Gentium* and not *Gaudium et Spes* (the Dogmatic Constitution on the Church in the modern world) is the keystone document. Between the two, *Lumen Gentium* best suits the New Evangelization because while the movement does interact with the modern world, it stems from inside the Church, and the communion one finds through discipleship and a sacramental life.[16] Pope Benedict XVI reminds Catholics that it is communion with Christ in the Eucharist that unites the Church and allows her to reach out with a missionary heart.[17] Discipleship is not merely a

[11] Michael J. McCallion, and David R Maines, 2009, "Representations of Faith and the Catholic New Evangelization," in *New Theology Review* 22, no. 1 ALTA Catholic Periodical and Literature Index, EBSCOhost (accessed October 19, 2017), 59.

[12] Vatican Council II, *Lumen Gentium*, Libreria Editrice Vaticana, 1964, 5. http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_const_19641121_lumen-gentium_en.html.

[13] Cahall, "The Nucleus of the New Evangelization", 41. Direct quote from *Ad Gentes*, 5.

[14] Ibid. Direct Quote from, *Ad Gentes*, 5.

[15] Pope Paul VI, *Evangelii Nuntiandi:* Apostolic Exhortation, Libreria Editrice Vaticana, 1975, 14. http://w2.vatican.va/content/paul-vi/en/apost_exhortations/documents/hf_p-vi_exh_19751208_evangelii-nuntiandi.html.

[16] Rymarz, "The New Evangelization in an Ecclesiological Context," 781.

[17] Ibid., 775.

network of friends or neighbours; it is a higher, supernatural calling from God.

John Paul II, concerning Vatican II, draws attention to another source for which the New Evangelization finds its grounding – the apostolic exhortation *Evangelii* Nuntiandi.[18] Evangelii *Nuntiandi* is often classified as one of the documents of the Church that pertains to social justice. Paul VI issued the exhortation in 1975, ten years after the close of Vatican II. The decree *Ad Gentes* in its promulgation "was landmark in the church's thinking about mission."[19] It did not, however, address how evangelization and mission should look in the modern world.[20] Paul VI used the opportunity to answer his concern around the question does "the Church find herself better equipped to proclaim the Gospel and to put it into people's hearts with conviction, freedom of spirit and effectiveness?"[21]

Evangelii Nuntiandi finds itself drawn upon in the New Evangelization because the whole text pertains to how one should go about sharing the word of God and encouraging a lived and active faith. This exhortation displays that the body of Christ reaches out to all peoples. Paragraph 39 addresses "the necessity of ensuring fundamental human rights," and explains that "human rights cannot be separated from this just liberation which is bound up with evangelization and which endeavours to secure structures safeguarding human freedoms." Since man and women are created in the image and likeness of God, all peoples are loved by God. The understanding that God loves all people is one of the foundations of the New Evangelization. In fact, since all peoples are people of God, making up the body of Christ, John Paul II later maintained, that "it is necessary to inculturate preaching in such a way that the Gospel is proclaimed in the language and in the culture of its hearers."[22] The cultural climate of the hearers, particularly in North America, live in a state of secularization. Secularization, religious pluralism, and relativism in previously Christian nations are the grounds in which the New Evangelization differs from traditional evangelization.[23] No longer are missionaries bringing a faith that is entirely new, but they are reclaiming and proclaiming truth to a culture in which it is overlooked or disregarded.

When Christianity first came to North America, it took many different forms. Among the Native American peoples, Catholic missionaries came as early as the 1600s. They sought

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[18] Cahall, "The Nucleus of the New Evangelization," 41.

[19] Robert Schreiter, C.Pp.S, "Evangelii Nuntiandi," in *The New Dictionary of Catholic Social Teaching*, 353-363, Edited by Judith A. Dwyer (Collegeville, MN: The Liturgical Press, 1994), 353.

[20] Schreiter, C.Pp.S, "Evangelii Nuntiandi," 353.

[21] Ibid.

[22] Pope John Paul II, *Ecclesia in America:* Apostolic Exhortation, Libreria Editrice Vaticana, 1999, 70. http://w2.vatican.va/content/john-paul-ii/en/apost_exhortations/documents/hf_jp-ii_exh_22011999_ecclesia-in-america.html.

[23] Edward A. McCarthy, "Preface," in *The New Catholic Evangelization*, edited by Kenneth, Boyack, C.S.P, editor, (Mahwah: NJ. Paulist Press. 1992), 4. Also found in: Cahall, "The Nucleus of the New Evangelization," 48-49.

to bring not only the Catholic faith but also a European lifestyle.[24] To the Native American peoples, the Christian faith was something new. Paul Le Jeune, one of the first Jesuits in Quebec, came up with what he believed to be the blueprints for evangelization. He believed that, in three steps, the people that the French were encountering could become Christian. Ultimately, his three steps, a common language, the building of seminaries, and movement onto reserves, failed.[25] In his failure, one can see that he did not take into consideration the needs or desires of the peoples he was ministering to. The New Evangelization tries to meet people where they are. As Perry Cahall says in *The Nucleus of the New Evangelization*, "an integral part of the New Evangelization is adapting to manner of spreading the unchanging gospel to fit the current cultural climate."[26] Jean de Brébeuf, a missionary that came after Le Jeune, did just what the New Evangelization calls for in adapting the Gospel to the cultural climate. He met the Huron people where they were at and was able to learn the Huron language. De Brébeuf was able to use inculturation to his advantage. He made people feel comfortable with him and used dimorphism to create a synthetic fusion of old and new beliefs.[27] His efforts were successful because he listened to the needs of the people and made the message of the Gospel applicable and made the Church approachable. "The New Evangelization seeks to provide the opportunity for people to encounter, or re-encounter Christ, allowing him to shape their very nature."[28]

Many attribute John Paul II as the founder of the New Evangelization because he was the first to use the term in 1979 in a pastoral visit to Poland.[29] However, John Paul II was drawing upon the call for active participation from Vatican II and the desires of Paul VI, who, through choosing the pontifical name of Paul in honour of the Apostle Paul, dedicated his pontificate to evangelization.[30] In 1983, while visiting the Latin American Bishops John Paul II "called for a New Evangelization of the Americas."[31] This New Evangelization in the Americas would formally begin in 1992 – to commemorate the 500 year anniversary of Catholic countries finding North America.[32]

Prior to 1992, to give direction in modern evangelization and to celebrate the twenty-five years since the writing of the Conciliar Decree, *Ad Gentes*, and fifteen years since the writing of *Evangelii Nuntiandi*, John Paul II wrote the encyclical *Redemptoris Missio* (on the

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[24] Peter Baltutis, "Christianity in New Worlds – Looking West," Presented at St. Mary's University on October 2, 2017, Accessed November 9, 2017.

[25] Ibid.

[26] Cahall, "The Nucleus of the New Evangelization," 43.

[27] Baltutis, "Christianity in New Worlds – Looking West."

[28] Cahall, "The Nucleus of the New Evangelization," 46.

[29] Ibid., 40.

[30] A. Dulles, "Evangelization, New, " in *New Catholic Encyclopedia*, 2nd ed., 477-480, Vol. 5. (Detroit: Gale, 2003), 478.

[31] Scott Hann, *What is the New Evangelization*. St. Paul Centre for Biblical Theology. Accessed November 10, 2017. https://www.youtube.com/watch?v=i_oJF7qhqWM.

[32] Scott Hann, *What is the New Evangelization*.

permanent validity of the Church's missionary mandate). He says, "I wish to invite the Church to *renew her missionary* commitment,"[33] and that the purpose of the document is "an interior renewal of faith and Christian life."[34] That is because "missionary activity renews the Church, revitalizes faith and Christian identity, and offers fresh enthusiasm and new incentive. *Faith is strengthened when it is given to others!* It is in commitment to the Church's universal mission that the New Evangelization of Christian peoples will find inspiration and support"[35] John Paul II recognized the need for evangelization, and re-evangelization of Catholics. Through this document, he validated the mission that Vatican II called for in active participation and the universal call to holiness.

In Denver, Colorado, 1993, the first North American Word Youth Day was held. Prior to this, World Youth Day had only been held in prominently Catholic countries.[36] The vast display of young Catholics who attended in Denver shows that in the years after Vatican II the laity were hearing the call to engage in their faith. The choice to actively attend World Youth Day meant that those young people had to give something up. For some, it might have been work, others vacation, yet still, for others, it was time with their friends. The young people who attended displayed discipleship. They responded to the call of Jesus to pick up their cross, to sacrifice. They were actively engaged in their relationship with Christ, and it was done in community.

Leading into the new millennium, in 1999, John Paul II wrote the apostolic exhortation *Ecclesia in America*. Like Paul VI's *Evangelii Nuntiandi, Ecclesia in America* is held in high regard due to the nature of the document. That nature being the explanation of how to go about evangelization in the modern world, more specifically in North America. John Paul II addresses many social and cultural issues the Americas were facing like the "growing respect for human rights," the increasingly global and urbanized world, "the burden of external debt," "corruption," "the drug trade," and "ecological concern[s]."[37] He proposes that evangelization is the answer. Quoting the Gospel of Mark stating, "The time is fulfilled and the Kingdom of God is close at hand: repent and believe the Good News."[38] John Paul says that the continual conversion of the soul is needed and that "Jesus [is], the one way to holiness."[39]

The 1980s and 1990s in North America birthed many movements centered around the *New Evangelization* and reconversion of Catholics. Three of these organizations are NET – National Evangelization teams, CCO – Catholic Christian Outreach, and FOCUS -Fellowship

[33] Pope John Paul II, *Redemptoris Missio:* Encyclical, Libreria Editrice Vaticana, 1990, 2. http://w2.vatican.va/content/john-paul-ii/en/encyclicals/documents/hf_jp-ii_enc_07121990_redemptoris-missio.html.

[34] John Paul II, *Redemptoris Missio*, 2.

[35] Ibid.

[36] Vatican, "Chronical of World Youth Days," On *Vatican.va*, http://www.vatican.va/gmg/documents gmg_chronicle-wyd_20020325_en.html. Accessed on November 17, 2017.

[37] John Paul II, *Ecclesia in America*, 19-25.

[38] Ibid., 26. Direct quotation from Mark 1:15.

[39] John Paul II, *Ecclesia in America*, 31.

of Catholic University Students. Both CCO and FOCUS have been since their start geared towards young adults and university students while NET's target mission field is that of grade school students. NET began in 1981 in the Archdiocese of St. Paul and Minneapolis.[40] The mission of NET is to challenge young Catholics to love Christ and embrace the life of the Church. This is done through a variety of different forms of events like youth groups and school retreats. CCO was founded in Saskatoon, Saskatchewan in 1988,[41] and FOCUS ten years later in 1998 on the campus of Benedictine College in Kansas.[42]

Both CCO and FOCUS operate through promoting discipleship and community on university campuses. They meet one on one with students and share their faith through inviting the participants to develop a personal relationship with Christ while providing basic catechesis. As the students grow in their faith they are encouraged to actively partake in sharing their faith with others; thus, creating a chain like reaction in evangelization. These modern missionary organizations proclaim the Gospel in a way that is approachable and applicable using social media, prayer events, and social gatherings to foster community. Like traditional missionaries and evangelization, individuals are sent out; but, instead of a single person, teams or groups are sent – further displaying that both faith and discipleship grow in community. All three of these organizations have at their heart a zeal for the Gospel, which Paul VI says "will inspire the reshaping of them almost indefinitely."[43] They embody the New Evangelization through their missions of forming intentional disciples of baptised Catholics and fostering an environment of love, conversion, and reconversion. In their zeal both CCO and NET have spread internationally, displaying that their methods of conversion and reconversion work both in the hearts of those they encounter and in and the missionaries who are sent out.

The New Evangelization‚ at its core is love. Lumen Gentium says, "God is love, and he who abides in love, abides in God and God in Him."[44] Discipleship and communion with Christ through the Eucharist is key to active participation in the faith and the way to holiness. All Christians are called to share their lived faith with others. Leading up to the new millennia, the magisterium of the Church produced documents such as *Lumen Gentium, Ad Gentes, Evangelii Nuntiandi, Redemptoris Missio,* and *Ecclesia in America* that all guide and lead the body of Christ into the world while demonstrating the need for communion with the Church. In the new millennia, the magisterium has continued to realize the importance of the New Evangelization through the creation of the Pontifical Council for Promoting the New Evangelization by Benedict XVI in 2010. "Being Christian is not the result of an ethical choice or a lofty idea, but the encounter with an event, a person, which gives life a new horizon

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[40] "Mission," on *NETusa.org,* http://www.netusa.org/mission/ Accessed November 13, 2017.
[41] "Founders," on *CCO.ca,* https://cco.ca/founders/ Accessed November 13, 2017.
[42] "Our Story," on *FOCUS.org,* https://www.focus.org/about/our-story Accessed November 13, 2017.
[43] Paul VI, *Evangelii Nuntiandi*, 43.
[44] *Lumen Gentium,* 41. Quoting 1 John 4:15

and a decisive direction."[45] The New Evangelization will continue to spread, in both previously Christian nations and those waiting to hear the message of Christ. Evangelization does not stem from human conquest, but the desire given by God and led by the Holy Spirit to share the "inestimable gift"[46] of peace, love and joy received from a relationship with Christ.

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[45] Pope Benedict XVI, *Deus Caritas Est*. Libreria Editrice Vaticana. 2005. http://w2.vatican.va/content/benedict-xvi/en/encyclicals/documents/hf_ben-xvi_enc_20051225_deus-caritas-est.html

[46] Pope Benedict XVI, *Motu Proprio Ubicumque et Semper*.

Pope Benedict XVI. *Motu Proprio Ubicumque et Semper:* Apostolic Letter. Libreria Editrice Vaticana. 2010. http://w2.vatican.va/content/benedict-xvi/en/apost_letters/ documents/hf_ben-xvi_apl_20100921_ubicumque-et-semper.html

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Turning Oral Tradition into Public Art: Bill Reid's The Spirit of Haida Gwaiis

Tracy Iverson

⁎ **For thousands of years,** Indigenous peoples in North America have preserved their cultures and histories through a rich oral tradition involving the passage of sacred knowledge from one generation to the next. Often, individuals within the tribes called knowledge keepers would learn not only the histories and stories but the art of the storytelling as well. When the knowledge keepers became Elders, nearing the ends of their lives, they would choose a new knowledge keeper and pass those stories along to the next generation.[1] Not all indigenous history is strictly oral. Some Indigenous communities have combined oral history with other forms of communication such as pictographs, painting the linings of tipis (and the tipis themselves), and through various kinds of sculpture. In this paper, I will discuss the Haida people as an example of an indigenous community that blends oral history and art to convey the traditions and histories of their culture. I will specifically address the work of the late Bill Reid, a Haida artist well known for his sculptures (and less well-known for his writing) which are on display in various public locations, such as the Vancouver International Airport. I argue that by displaying their work in public spaces outside of their communities, such as galleries, aquariums, and airports, Indigenous artists such as Bill Reid show a willingness to share their culture and history with others, providing them with a valuable opportunity for enrichment. In turn, by choosing to display various forms of cultural art from local Indigenous communities, gallery owners and local government officials (such as the Vancouver Airport Authority) enhance their connections and relationship with the Indigenous communities with whom they co-exist; and represent the Indigenous culture as a significant component of the local identity.

When thinking about the Indigenous art of the Pacific Northwest Coast, images of totem poles immediately spring to mind, especially when considering the Northwest Coast of British Columbia. Several Indigenous communities inhabit the area: the Haida, the Tlingit, the Tsimshian, and the Salish, to name a few. Certainly, totem poles are part of these cultures. However, head into any gift shop on the coast of British Columbia and you will find yourself immersed in a haven of mass produced key chains and statuettes portraying miniature totem poles and sculptures that are meant to represent the Indigenous cultures of the area. The thing

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[1] I learned this from Thomas Snow, a knowledge keeper with the Stoney Nakoda Nation, during a talk he gave at St. Mary's university in February 2018.

that sets the item available in the gift shop apart from that which is handcrafted by the artist is meaning. Often, the artist does not share a cultural identity with his or her audience, and so, it is likely that when the outsider is viewing various forms of Indigenous art, the story behind it remains unknown.

As this paper specifically discusses the Haida artist, Bill Reid and his well-known piece, *The Spirit of Haida Gwaii*, it is important to know that Haida Gwaii "is an isolated group of over 200 islands, large and small, totaling approximately 3750 square miles or 1,000,000 hectares."[2] According to James Tully, author of *Strange multiplicity: Constitutionalism in an age of diversity*, Haida Gwaii means "the island home (or place) of the Haida,"[3] and "Haida" means "the people."[4] Haida Gwaii is also known by its colonial moniker, the Queen Charlotte Islands. Indigenous communities refer to North America as "Turtle Island," and so to honor this tradition and history, I will use that term throughout this paper.

In 1985, Bill Reid was commissioned to create a sculpture destined for the Canadian Embassy in Washington D.C.. Reid was "inspired by nineteenth century argillite carvings of miniature canoes thronging with animal and human passengers,"[5] and so he began by making a smaller clay model, then a full-scale clay model, and finally, "the sculpture was cast in plaster over an armature of steel rod and mesh for further refinement."[6] The maquette (plaster cast) was shipped to New York and was cast in bronze and covered with a patina to make it look like argillite.[7] *The Spirit of Haida Gwaii* is "over nineteen feet in length, eleven feet wide, and twelve feet high, containing thirteen passengers, *sghaana* (spirits or myth creatures) from Haida mythology."[8] According to Tully, the process was arduous, and Reid stopped working on it for a period in protest of the logging taking place on Haida Gwaii and in support of the sovereignty of his people.[9] Reid completed the sculpture in 1991, and it was donated to the Canadian government by Nabisco Brands Canada.[10] While the original black bronze sculpture (subtitled: *The Black Canoe*)[11] is on display at the Canadian Embassy in Washington, the original plaster is on display at the Canadian Museum of Civilization in Gatineau, Quebec.[12] In 1994, a twin sculpture, commissioned by the Vancouver International Airport Authority, was completed and installed in the international terminal building at the Vancouver International Airport.

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[2] "Haida Gwaii," *Council of the Haida Nation* website, accessed on April 10, 2018. http://www.haidanation.ca.

[3] James Tully, *Strange multiplicity: Constitutionalism in an age of diversity* (Cambridge UP, 1995), 18.

[4] Ibid.

[5] "The Spirit of Haida Gwaii," *Bill Reid Foundation* website, accessed on April 10, 2018. http://www.billreidfoundation.ca/banknote/spirit.htm.

[6] "The Spirit of Haida Gwaii," *Bill Reid Foundation*.

[7] Ibid.

[8] James Tully, *Strange multiplicity: Constitutionalism in an age of diversity*, 17.

[9] James Tully, *Strange multiplicity: Constitutionalism in an age of diversity*, 18.

[10] "The Spirit of Haida Gwaii," *Bill Reid Foundation* website.

[11] Ibid.

[12] Ibid.

Instead of black patina, the patina on the sculpture created for the Airport Authority was done in "dark emerald green jade," to represent the jade found in British Columbia. This sculpture is known as *The Jade Canoe*.[13]

The sculpture has become familiar to many Canadians as not only does it greet and send-off passengers at the Vancouver International Airport, it was also featured on the country's twenty-dollar bill in 2004 as part of a series titled "Canadian Journey." According to the Bill Reid Foundation website, the twenty-dollar bill was the fourth in the series and featured four of Reid's works: *The Spirit of Haida Gwaii, The Raven and the First Men, Mythic Messengers*, and xhuwaji/Haida Grizzly Bear.[14] *The Spirit of Haida Gwaii* is the image that features most prominently on the bill. So, even if Canadians are unfamiliar with, or completely oblivious to Bill Reid, everyone living in Canada during the period that the series was printed and in circulation (2004-2006)[15] has seen his work. The idea of seeing something without realizing its significance and meaning leads to the next and most important point. Though *The Spirit of Haida Gwaii* had a great deal of significance to the artist, it has likely been largely overlooked by others, or viewed as an "interesting" piece of art and left at that. Once the story behind the sculpture becomes known, its location in Washington and Vancouver (and including the cast on display in Quebec) suddenly becomes very significant to those who are enlightened.

To tell the story of the sculpture to those outside of the Haida community, Reid composed a text poem titled, "The Spirit of Haida Gwaii," which offers identification of each of the passengers and describes their journey. In the poem, the passengers on the boat have no idea where they are or where they are going. They know that they are a long way from home (Haida Gwaii) and that their journey has a destination, as they can sense they are heading in a specific direction. Even while they are on their journey, the passengers are fighting for position inside the canoe. The first passenger Reid encounters is the Bear. The Bear is a stoic character whose vision is and will always be focused on the past as he hangs on to his belief that things have not changed and never will. The Bear Mother, as Reid describes her, is human and her concern is what lies ahead in the future. Her children are her main concern. Reid reminds the reader that the Bears are from a pre-existing myth, "the one about Good Bear and Bad Bear and how they changed."[16] As a result of this, the Bear Mother remains vigilant. Next, Reid encounters the Beaver, who is hardworking but dull. Reid refers to Beaver as "the compulsory Canadian content, big teeth and scaly tail, perfectly designed for cutting down trees and damming rivers."[17] The Dogfish woman is the most unattractive of creatures, and yet, she is "the most desirable and fascinating woman from myth-time."[18] The Dogfish woman

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[13] Ibid.

[14] "Banknote," *Bill Reid Foundation* website, accessed on April 10, 2018. http://www.billreidfoundation.ca/banknote/index.htm.

[15] "Canadian Journey," *Bank of Canada/Banque du Canada* website, accessed on April 10, 2018. https://bankofcanada.ca/banknotes/bank-note-series/canadian-journey/

[16] Bill Reid, "The Spirit of Haida Gwaii," *Bill Reid Foundatio*n website, accessed on April 10, 2018. http://www.billreidfoundation.ca/banknote/spirit.htm

[17] Bill Reid, "The Spirit of Haida Gwaii."

[18] Ibid.

keeps herself separated as much as she can from the others as she is a self-absorbed dreamer. The Mouse Woman, once important, is now diminished in position to the other passengers, including those who are a part of her original myth. Reid states that Mouse Woman "is an important part of the Bear Mother story."[19] He later goes on to explain that Mouse Woman has been relegated to the back of the boat to hide beneath the Raven's tail, but that because no one has ever seen her, she may or may not look the way he has described. The Raven is the trickster that steers the boat. The passengers are all at the mercy of his whim, and therefore things are never as they seem. The man in the boat is referred to as the Ancient Reluctant Conscript. He is introduced into the story as a representation of the Haida culture. According to Reid, "A culture will be remembered for its warriors, artists, heroes and heroines of all callings, but in order to survive it needs survivors."[20] The Ancient Reluctant Conscript is that survivor and is seemingly unimportant to all around him as he is the one who obeys orders. He is a feature of every history of man and has a breaking point. Eventually, he will stand up for what is right and stop taking orders from the oppressors (what Reid refers to as "latter-day kings and captains"), and "after the rulers have disappeared into the morass of their own excesses, it is he who builds on the rubble and once more gets the whole thing going."[21] It is easy to see why he is the survivor as he represents the strength and integrity of the Haida people. The Wolf is another trickster; however, Reid refers to his existence as a myth as he is not known to exist on Haida Gwaii. Reid states that "Nevertheless, he was an important figure in the crest hierarchy. Troublesome, volatile, ferociously playful, he can usually be found with his sharp fangs embedded in someone's anatomy."[22] The recipient of Wolf's fangs on this particular journey happens to be the Eagle. Reid described the Eagle as "proud, imperial, [and] somewhat pompous," and so the Eagle "retaliates by attacking the Bear's paws."[23] Of course, the Bear is oblivious because he is stuck in the past. Finally, there is the Frog, and he is the transitional passenger. He lives on land and in water, and throughout the journey, he positions himself "partially in and partially out of the boat and above the gunwales: the ever-present intermediary between two of the worlds of the Haidas, the land and the sea."[24] Reid wonders as to the purpose of the journey. He wonders if the "tall figure who may or may not be the Spirit of Haida Gwaii,"[25] knows where the canoe is heading. It appears that this figure, the man who sits in the middle and holds a staff, is either looking ahead to the destination or is "lost in a dream of his own dreaming." In the end, it is revealed that though the boat is destined to move forward, it is "forever anchored in the same place."[26] So, what does this all mean?

When considering the relationships between Indigenous groups and the settlers who came, it becomes easier to understand the meaning of the story, the symbolism of each of the

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[19] Ibid.
[20] Ibid.
[21] Bill Reid, "The Spirit of Haida Gwaii."
[22] Ibid.
[23] Ibid.
[24] Ibid.
[25] Ibid.
[26] Ibid.

passengers, and even the purpose of the journey. The Bear represents the Haida who, because he is solely focused on the past, cannot find his way forward and has become oblivious to what is going on around him. This is not an ideal position and it is not conducive to moving forward in a world that has changed. No matter how hard he tries to stay in the past, he is still on the boat moving forward. The Bear Mother represents the Haida who cares for the future generations. She is the Elder in charge of the conveyance of cultural knowledge. The Beaver is more difficult to interpret; however, it appears that he represents the Haida as a citizen of Canada, doing what he does and living his life. He represents a specific place (Canada) within Turtle Island. It appears that the Dogfish Woman represents the Queen (Queen Charlotte perhaps?). By Reid's description, she is unsightly. She dons a "headdress reflecting the pointed shape of the dogfish head,"[27] which leads to wonder whether this might be a crown? Everyone is fascinated with her because she keeps herself a mystery. She is aloof and focuses only on herself. She is clearly an outsider. Mouse Woman is an interesting character because she represents an idea more than a flesh and blood creature. She is truly the myth because no one has noticed her or can claim to have seen her. Reid plays the trickster by claiming that his own description of her might not be reliable. This begs the question, is Mouse Woman the true Haida behind the stereotype? The Raven features heavily in Haida oral history and art, especially in Reid's work. He is more than a passenger as he is the one steering the canoe. He is unreliable and yet, the other passengers have no other choice but to follow him. I believe the Raven is representative of the Canadian government in the context of this poem. He appears to be leading the passengers somewhere purposeful, and yet, he can change his mind and create a kind of chaos for the other passengers in the canoe. The Ancient Reluctant Conscript seems to represent man as a human. He is the Haida who does what he is told, but when he has had enough, it is indeed enough. He is left to rebuild the foundation of the culture after the settlers have taken everything they wanted and have destroyed themselves. Because he is the survivor, he is the one who will be left when there is no other. It has always been this way and will continue to be this way. The Wolf represents the noble, greedy, settler who has no regard for anyone and, in fact, prefers to go through others to get that which he desires. It is interesting that Reid refers to the Wolf being an important figure in the crest hierarchy, because this implies that he has some position within the nobility of society. Perhaps it is safe to say he represents other royals who have taken advantage of Turtle Island? The Eagle is yet another passenger who is difficult to predict. Indigenous cultures all over seem to place high regard for the Eagle. Perhaps the Eagle represents the Chief or Elder who takes his frustrations out on his own people? Because he is attacking the Bear (the past), he is denying, and possibly destroying, his own history. Considering that Reid tells us that each of the passengers is constantly vying for position, even as the journey is in progress, we come to understand that the positions of the Haida are always changing. Nothing is static, however the anchor referred to at the end of the poem implies that Haida Gwaii is always home, and no matter how far the passengers journey, they will always be connected to that home. Of course, the interpretations of Reid's poem and its passengers in this paragraph are my own and they make sense to me. Unfortunately, I am unable to go to the original source of interpretation, as Reid passed away on March 13, 1998, in Vancouver, at the age of 78 years.[28] There is something to be said for having text, dictated by the author, to help

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[27] Ibid.

[28] Joel Martineau, "Autoethnography and Material Culture: The Case of Bill Reid," in *Biography*, vol. 24, no. 1, 2001, 242

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with the interpretation. Given the time to do the research, it would be interesting to see if his other famous pieces, such as *The Chief of the Undersea World* at the Vancouver Aquarium,[29] are accompanied by a text poem.

There is another way to look at Reid's work. In his paper titled, "Autoethnography and Material Culture: The Case of Bill Reid," Joel Martineau writes:

> Material objects readily identified with First Nations (buildings, clothes, ceremonial paraphernalia, artifacts, canoes, to cite a few examples) challenge colonial authority, assert aboriginal survival, demand responses, and provoke action (132). Their very visibility (for example when images of First Nations appear on televised newscasts or are shown in galleries and museums) ensures that they confront White hegemonic power; it demands that the objects be interpreted as texts.[30]

Understanding that Reid's work reflects Haida culture and mythology, and that such mythology has the cultural history embedded within it, a somewhat shocking realization occurs; the cultural history does not have as much to do with the contents of the stories, or their plausibility (they are based on myth after all), as they do with storytelling itself. Though the story bears a message of its own, the history of people is remembered upon reflection of the places and times when the stories were told. People often think back to what was going on in their lives when they heard this or that particular story and, in that way, they remember history. Reid, and other artists like him, are the knowledge keepers that tell the stories through their art. When they share that art, they are passing their knowledge and memory along to future generations. Just as traditional knowledge keepers interpret the knowledge that they have received from the Elders before, they interpret, process, and share what they have received in ways that are relative to their own interpretation and experiences.

It is interesting that Reid's work is not without its controversy. When Reid stopped working on *The Spirit of Haida Gwaii* in protest of the forestry activities that were taking place on Haida Gwaii, he had been commissioned by the government of Canada to create the sculpture.[31] By stopping the work, he was, in a way, acting out the part of the Ancient Reluctant Conscript who says "enough." He took his stand in support of his people and his culture. His completion of the piece, and its installation, is symbolic not only of Reid's own willingness to reconcile and move forward; the sculpture and its installations also represents the journey that all of us, as citizens of Turtle Island with various cultures and backgrounds, are travelling together. Now that we are all in the same boat, we will always be in relationship with each other no matter where we are.

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[29] Sheenan, Carol. "Bill Reid." In *The Canadian Encyclopedia*, Historica Canada, accessed April 10, 2018. http://www.thecanadianencyclopedia.ca/en/article/william-ronald-reid/

[30] Joel Martineau, "Autoethnography and Material Culture: The Case of Bill Reid," 250.

[31] Joel Martineau, "Autoethnography and Material Culture: The Case of Bill Reid," 249.

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Object and Depth Perception

Amy Johnson

    ⁖ **Every day we perceive objects,** people, and things within our environment, and we do not even think about how this is possible, or even question our ability to do this. As Goldstein (2015) explains, perception appears to be an automatic process that occurs very rapidly and without any effort; that we do not even notice it is happening. Perception is an important part of our everyday life and without the ability to visually perceive we would not be able to recognize people we know or be able to tell the difference between different objects that we may come into contact with. Visual perception is also important because it is necessary for our survival that we know what particular objects are and where they are located, in relation to us, within our environment (Styles, 2005). Visual perception, though, is guided by a multitude of different cues or heuristics which we use to differentiate and organize objects within our environment such as, distance and depth, size and texture.

    Heuristics can be described as 'rules of thumb' which provide a 'best guess' as to what we can expect to happen or what we can expect we are perceiving when we look at a particular object within a scene (Goldstein, 2015). Heuristics are developed based on our past experience within a given situation, and help us to reach rapid conclusions based on what we are perceiving, and these conclusions we make are usually correct (Goldstein, 2015). When talking about visual perception, heuristics can be thought of as perceptual cues and perceptual laws of organization which are signals we utilize from the environment. The perceptual cues we use in order to navigate around and recognize objects occur regularly in our environment and because of this regularity we are able to make assumptions about what an object is most likely to be (Goldstein & Brockmole, 2017).

    We need to use perceptual cues and laws of perceptual organization because when we see an object the image of that object is projected onto the retina in a two-dimensional form because the retina is basically a flat surface (Styles, 2005). Because the retina is flat, the two-dimensional image is considered ambiguous as there are multiple objects which can produce the same retinal image. This is a problem because visual perception is three-dimensional so, therefore, it is necessary to use perceptual cues and laws of perceptual organization in order to properly determine the object we are perceiving (Riener & Proffitt, 2010; Styles, 2005).

    Because the image on the retina is ambiguous, when an observer looks at objects, prior knowledge and expectations that have been learned from interacting with those objects influences perception of the objects through the use of pictorial depth cues and the principles of organization (Goldstein & Brockmole, 2017; Styles, 2005). According to Goldstein and

Brockmole (2017), after individuals have learned the relationship between depth cues and the resulting perception of objects this relationship becomes an automatic process. The use of pictorial depth cues, including monocular depth cues, enables observers to perceive the depth and size of objects when the object's image falls onto the retina (Riener & Proffitt, 2010). The use of the principles of organization allow individuals to formulate a 'best guess' of what they are perceiving based on their past experience of what usually happens when viewing a particular object in the environment (Goldstein & Brockmole, 2017).

Pictorial Depth Cues

Depth perception can be obtained from pictorial depth cues, specifically, through monocular depth cues, which are depth cues that can be seen with the use of only one eye (Riener & Proffitt, 2010), as compared to obtaining depth perception from the use of both eyes (binocular depth cues). Monocular depth cues provide information on the relative size of objects, which can be depicted in photographs (Goldstein & Brockmole, 2017), and can be used to help determine distance of faraway objects (Styles, 2005). Some monocular depth cues are only able to provide information on the relative depth of an object, such as occlusion, relative height, and atmospheric perspective, while other monocular depth cues are able to provide a more absolute determination of depth, such as relative size and texture gradient (Goldstein & Brockmole, 2017).

Occlusion

The pictorial depth cue of occlusion occurs when one object partially covers up another object; the partially covered object is perceived to be behind the occluding object and thus farther away (Riener & Proffitt, 2010). Occlusion, however, does not allow us to determine with any precision the actual distance the object is away from the observer (Goldstein & Brockmole, 2017). Figures 1 and 2 provide examples of the pictorial depth cue of occlusion. In Figure 1, the apple in front and center of the image (A) is occluding the other apples because it is covering up parts of the other apples behind it. Because of this, we can know that the other apples are behind the front apple and thus, they are farther away than the apple in front, however, we cannot be sure as to the exact distance the other apples are from the front apple. That is, we know that apple B is behind apple A, however, we cannot be certain as to how far away apple B is from apple A only that apple B does continue behind apple A.

Figure 2 shows a similar situation, but with people instead of apples. When viewing objects within a scene, such as with Figure 2, objects are often seen as overlapping one another and the occluding object is often said to be occluding the contour of the object behind it (Styles, 2005). We can see this occlusion of contour by looking at the individual with the black and white striped shirt. This woman's arm is occluding the arm of the man behind her. We know this because the woman's arm has an unbroken contour whereas the man's arm has a broken contour as it is behind the woman's arm. This same effect can be applied to the woman's upper body occluding the man's upper body. We know that the man is behind the woman because the contour of his upper body is broken by the contour of the woman's body; we do

not perceive the man to be two separate pieces, we perceive the man to be a complete body which is behind the unbroken body of the woman in front.

Atmospheric Perspective

Atmospheric perspective allows us to determine relative distance because the farther away an object is the blurrier and/or bluish it becomes thus, the object appears less clear than objects that are closer to the observer (Styles, 2005). Atmospheric perspective occurs because distant objects are separated from us by dust particles in the air such as from smog pollutants or moisture from fog (Goldstein & Brockmole, 2017). The pollutants and moisture cause the light that reaches the retina to become scattered, thus, objects which are farther from the observer become less visible and because objects which are closer to the observer are not affected by atmospheric perspective these objects remain in sharp focus (Goldstein & Brockmole, 2017). Due to the characteristics of atmospheric perspective, even at closer distances an object may appear to be relatively further away than it really is if the atmosphere is denser with dust and moisture particles. In this sense, atmospheric perspective distorts our view of distant objects.

Figure 3 illustrates the pictorial depth cue of atmospheric perspective because as we can see from the photo the foliage in the foreground, point A, is quite crisp and clear and we can see great detail in the leaves of the trees. But as the observer's line of sight moves farther from point A towards points B, C, and D, the crispness of the image declines and the mountains appear less detailed and blurrier. The mountains at point C and D are bluer than the mountain at point B, which demonstrates atmospheric perspective. Figure 4 also illustrates atmospheric perspective with mountains. In this particular image, it can be perceived that mountain D is farther away than mountain C, which is farther away than mountain B, which is farther away than mountain A from the observer. This is because the pictorial depth cue of atmospheric perspective is at work, with the mountains moving from points A to D becoming increasing hazier and bluer, the colors are also becoming less sharp. In accordance with atmospheric perspective, as described by Goldstein and Brockmole (2017), the grasslands at the foreground of the image are not affected by atmospheric perspective because we can see single pieces of grass leaves and the richness of red and orange colors of the grasslands. The details of the ridges on mountain B are quite a bit sharper than the ridges on mountain D, and this is because there is more dust particles and moisture in the air which prevents the observer from being able to perceive the fine detail that may be present on mountain D. It can also be noted that it is not possible to determine accurate distance of each of the four mountains, or even the distances between the four mountains, only that each mountain (from A to D) is successively further away.

Relative Size

The pictorial depth cue of relative size indicates that when two or more objects are of equal size, the object which is closer to the observer will take up more of the retinal image than the object which is farther away (Goldstein & Brockmole, 2017). Therefore, it is our knowledge of an object's relative size which influences our perception of that object and in turn, enables us to determine the distance the object is from the observer (Goldstein & Brockmole, 2017). Our prior knowledge of an object's relative size is also influenced by the pictorial depth cue

of familiar size. Thus, according to Styles (2005), it is unnecessary to be concerned with the changing size an object makes as it moves farther away or closer towards the observer. This is because our prior experience has demonstrated that objects do not get physically smaller the farther away they are, and objects do not suddenly get physically larger as the observer moves closer towards the object (Styles, 2005).

The pictorial depth cue of relative size is illustrated by Figure 5, which depicts four trucks of equal size along a roadway. This picture illustrates relative size because we know that trucks do not suddenly change their physical shape and size, therefore, according to the relative size depth cue truck D is farther away because it takes up less of our field of view and the image is therefore smaller on the retina. Truck A and B are closer to the observer because each takes up more of the field of view than truck D. Relative size is also illustrated in Figure 6. Figure 6 depicts a group of protestors holding hands in the foreground, and in the background, we also see a group of people gathered at the top of the hill. This is an illustration of the pictorial depth cue of relative size because we are familiar with the relative size of people and we know that people do not suddenly change their physical size, particularly when they are full-grown adults. The individuals on top of the hill are further away because they take up less of the field of view on the retina than those individuals in the foreground holding hands.

Relative Height

The pictorial depth cue of relative height, also known as height in plane, occurs when objects along the horizon, immediately above or below, appear to be farther away than objects not on the horizon; that is, objects which are at the top or bottom of our field of view appear to be closer to the observer (Goldstein & Brockmole, 2017; Riener & Proffitt, 2010). As Goldstein and Brockmole (2017) explain, when viewing a photograph or illustration the top of the photograph corresponds to the top of our field of view and the bottom of the illustration corresponds to the bottom of our field of view, with the horizon somewhere in the middle.

The pictorial depth cue of relative height is depicted in Figure 7, as can be seen by the otters at points A and B. The lone otter at point B looks to be farther away from the observer than the group of otters at point A because otter B is closer to the horizon than otters at A. The dotted line shows where the horizon is most likely to be in this illustration. Relative height is also evident by looking at the evergreen trees at points 1 and 2. Because tree 2 is closer to the horizon it is perceived as being farther away from the observer than tree 1, which is farther away from the horizon and closer to the lower portion of the observer's field of view.

Relative height is also illustrated in Figure 8, in which, again, the horizon is represented by a dotted line. Figure 8 showcases how relative height can work both for objects which are above the horizon and objects which are below the horizon. In this particular instance, the horizon is closer to the top portion of the observer's field of view. Relative height is utilized to help determine depth perception as noted by the fact that police car 3 is closer to the observer and is in the lower portion of the field of view which means car 3 is also far away from the horizon. Car 2 is closer to the horizon and is thus perceived as being farther away from the observer than car 3. The same is true for car 1, which is closer to the horizon than car 2 and therefore is farther away from the observer than either car 2 or car 3. Relative height can also

be noticed in the streetlights at points A and B. Because light B is closer to the top of the field of view it is perceived as being closer to the observer than light A, as light A is closer to the horizon than light B.

Texture Gradient

The pictorial depth cue of texture gradient is most easily thought of as occurring when objects that are of relatively equal size appear to become more densely packed together the further they extend into the distance which greatly enhances the observer's perception of depth (Goldstein & Brockmole, 2017; Riener & Proffitt, 2010; Styles, 2005). As Styles (2005) describes, when the elements that make up the texture of a scene are closer to the observer they appear to be spaced farther apart and also appear to be larger than when the elements are farther away from the observer. Styles (2005) also notes that the pictorial depth cues of relative size and texture gradient often occur together; it makes sense that familiarity also plays a role in texture gradient. When the observer is more familiar with a particular object, the observer is more knowledgeable about the object's relative size and, therefore, more apt at determining depth perception from texture gradient because texture gradient includes knowledge of relative size.

The pictorial depth cue of texture gradient is illustrated in Figure 9. The blades of grass in the foreground and the lower portion of the observer's field of view can be seen as larger and more spaced out than the grass in the background of the illustration. According to Riener and Proffitt (2010), because the individual grass elements project a smaller image on the retina for the grass which is in the background, the grass in the background appears to be more densely packed together than the grass in the foreground of the illustration. Because the density increases the farther away the grass is, the individual blade elements of the grass in the background of the illustration cannot be distinguished from each other which indicates that that grass is much farther away than the blades of grass at the foreground of the illustration; which the observer has no trouble distinguishing the individual and equal sized blades of grass.

Figure 10 also illustrates texture gradient, which is most easily perceived by the lights which the people are holding. We can see that this is a photograph of people who are all relatively the same size, and when viewing the photograph at the bottom of the field of view we can notice that the people are quite evenly spaced apart. As the observer brings their attention towards the upper-center of the photograph we can notice that the people become more closely and densely packed together to a point where it is difficult to discern any individual person. This means that the observer perceives the individuals who are higher in the observer's field of view for this photograph as further away than those who are lower in the observer's field of view. When looking at the lights the individuals are holding, we can see that the lights are evenly spaced out which are closer to the observer and are more densely packed together the farther away from the observer they are. At point A, in which no individual light can be detected as the lights culminate in the perception of a large, single light – this is texture gradient. Pictorial depth cues are not the only perceptual methods individuals utilize in order to perceive objects, we also make use of the Gestalt principles of organization in order to organize and group aspects in our environment into meaning objects.

Perceptual Organization

Perceptual organization is governed by another set of heuristics that we use on a daily basis in order to perceive objects within our environment; the most well-known of these are called the principles of perceptual organization which were proposed by the Gestalt psychologists in the 1900s (Goldstein & Brockmole, 2017). These principles have come to be known as the Gestalt principles of organization. The Gestalt principles of perceptual organization describe perceptual organization as the grouping of small elements in the environment in order to create our perception of larger objects (Goldstein, 2015). The Gestalt psychologists argued that our ability to group features together, to form a coherent perception of larger objects, as an innate ability that we are born with (Styles, 2005). The Gestalt psychologists also argued that even though past experience and knowledge about objects can influence an individual's visual perception, that ultimately the greatest influence to visual perception is the use of the principles of perceptual organization; it has been acknowledge by modern psychologists studying perception, however, that past experience does in fact play a major role in visual perception of objects (Goldstein, 2015). Some of the principles which the Gestalt psychologists proposed are the principle of good continuation, the principle of similarity, and the principle of proximity.

Good Continuation

The Gestalt principle of good continuation states that when viewing a series of points or lines, these lines will be perceived as following the straightest or smoothest path and thus, will be perceived as belonging together (Goldstein & Brockmole, 2017). The principle of good continuation is also similar to the pictorial depth cue of occlusion, in that the principle of good continuation also states that when we see an object as partially covered by another object, we understand that the occluded object continues to exist behind the occluding object (Goldstein & Brockmole, 2017).

Figure 11 illustrates the Gestalt principle of good continuation. From this illustration, we can see that there are two main directions the powerlines are traveling, vertical and horizontal. The vertical powerlines are intersecting the horizontal lines and the vertical lines are also crossing each other. These powerlines demonstrate good continuation because when we are looking at this illustration we tend to follow the vertical powerlines, from the power pole to the bottom of our field of view, as a straight, smooth, continuous path as is demonstrated by the green line; we do not perceive the powerlines as criss-crossing with the horizontal powerlines as is demonstrated by the red line.

The Gestalt principle of good continuation is also illustrated in Figure 12. We can see that this illustration of a knot shows that there are lines that cross each other, however, we are able to perceive that this is one continuous piece of rope; we do not perceive each separated segment as an individual piece of the rope. We are able to perceive the rope as one continuous, smooth line because of the perceptual organizational principle of good continuation. We can also see that section A of the rope is covering part of section B, however, we know that from our past experience with knots that section B does in fact continue on behind section A.

Similarity

The Gestalt perceptual organizational principle of similarity states that we group and organize perceptual information based on how similar elements are to each other; that features which are similar to each other will be grouped together to create our perception of the object (Goldstein & Brockmole, 2017; Styles, 2005). Grouping by similarity can occur for elements that are similar in size, shape, color, and even orientation (Goldstein & Brockmole, 2017).

Figure 13 illustrates the Gestalt principle of similarity in three separate ways, depending on how the observer perceives the photograph. Grouping by similarity can occur for color in this photograph as we can see there are two different colored hats being worn. On the left the men are wearing blue hats and on the right the men are wearing gray hats. The observer would perceive those men on the left as one group and those men on the right as another, different, group because of the color of their hats. Similarity grouping by size occurs because all of the people are about the same size and all of the hats are of similar size, therefore the observer could view this photograph and group all of the men in hats into one group, which is separate and distinct from the rest of the elements in the photograph. The principle of similarity is also illustrated by orientation, in that, when perceiving this photograph, we can say that this particular group of men are grouped together because they are all standing in vertical lines. Because the observer can perceive each row of men as belonging to a vertical orientation, the principle of similarity works to group the men together based on this characteristic.

Figure 14 also demonstrates the principle of similarity in that the individual elements of the seeds combine to create our perception of a tiger. Figure 14 illustrates the principle of similarity by color because we perceive each separate colored segment of the tiger (i.e., the white seeds, the black seeds, the yellow seeds, etc.) as their own separate element and then we combine those elements to create our visual perception of the tiger. For example, when viewing the eyes of the tiger we can see that they are made up of a group of yellow seeds and that there are groups of white seeds surrounding the yellow seeds. We perceptually group together the yellow seeds, because they are the same color, to form the eyes and group the white seeds to form part of the tiger's coloring. And then we group together the eyes and the surrounding colors to form our perception of the tiger as a whole; this is perceptual organization by similarity. We can see how the pictorial depth cue of familiarity also interacts with perceptual organization in Figure 14, as well as our past experience also helps to shape our perception of the tiger. Because we are familiar with what tigers looks like, their shape and color composition, we can use that familiarity in conjunction with the principle of similarity to aid in our perception of a tiger made out of seeds.

Proximity

The Gestalt principle of proximity, also called the principle of nearness, explains that we perceptually group together objects or features of objects based on their closeness to one another; objects which are near each other tend to be perceptually grouped together (Goldstein & Brockmole, 2017). That is, we tend to perceive objects as belonging together because of how close the objects are to each other (Styles, 2005). Figures 15 and 16 illustrate this Gestalt perceptual principle.

Figure 15 is a photograph of Chinese dancers, yet when we view this photograph we tend to group the dancers together based on how close they are to each other. On the right side of the observer's field of view, the dancers at point A are grouped together because they are very close together in our field of view. Moving toward the left of the photograph we group the three dancers at B as belonging together, and separate from the dancers at A, because the three dancers at B appear much closer to each other than the dancers of point A are to point B. Figure 15 also illustrates the principle of proximity by looking at the decorations on the trees on the right side of the photograph. The decorations illustrate the principle of proximity because if we look at point 1, 2, and 3, we can see that each point is its own specific group, based on how the close the decorations are to each other. For instance, at point 1 we can see that there is a group of three decorations, and because these decorations are in very close proximity to each other, we consider them to be grouped together and separate from the group at point 2 and the group at point 3. Again, we perceive the group of four decorations at point 3 to be its own group distinct from groups 1 and 2 because the four decorations are much closer to each other than they are to the decorations at point 2 or point 1.

The Gestalt perceptual principle of proximity is also illustrated in Figure 16. When viewing this illustration, we perceive four separate groups of objects on the battery. We perceive one jumper cable at point A, two jumper cables at point B, two jumper cables at point C, and one jumper cable at point D. Due to the principle of proximity we perceive each of these as separate groups because of how close the jumper cables are to each other, and the two jumper cables at points B and C are much closer together then they are to either points A or D. The principle of similarity is also at work in this illustration, as we could perceptually group the jumper cables based on their similar color, however, the principle of proximity appears to override the similarity principle in that we are more likely to group the elements in this illustration based on proximity.

Conclusion

The Gestalt principles of organization and the pictorial cues of depth perception work together to create our visual perception of the world. By examining pictorial depth cues and the perceptual principles of organization we can appreciate how our visual system uses these pieces of information to help us form a coherent and precise perception of objects within our environment. The Gestalt psychologists argued that we use our innate ability of how elements and objects are grouped together, based on "commonly occurring properties" within the environment, such as lines following the smoothest path and that elements which are similar in color tend to be part of the same object (Goldstein & Brockmole, 2017, p. 102). It is important to note that our perception of objects is also influenced by newly added information as we view a scene and that our perceptions do in fact depend on multiple sources of information from both depth cues and organization principles (Goldstein, 2015).

It must also be acknowledged that even though pictorial depth cues enable us to perceive objects rapidly and correctly, that no single depth cue is flawless. That is, we are not able to apply every monocular depth cue to every situation in which we encounter (Goldstein & Brockmole, 2017). This means that although pictorial depth cues do provide the visual system

with a wealth of information that enables us to perceive depth in photographs, some depth cues are simply more useful in certain situations. As explained by Goldstein and Brockmole (2017), the pictorial depth cue of relative height is most useful when the observer can see where the base, or bottom, of the object touches the ground, as in Figure 7.

Our visual system uses a multitude of different depth cues and principles of organization, sometimes at the same time, in order to create our perception of the world around us. Because when we view objects in our environment, the image that falls onto the retina is a two-dimensional representation of a three-dimensional objects which creates an ambiguous image. The solution to this ambiguity problem is that our visual system uses heuristics that we have learned from past encounters with objects to help us determine the depth and size of objects. The visual system utilizes the basic characteristics of frequently occurring aspects of objects within the environment in order for us to perceive a three-dimensional object in our environment. Without our ability to use these cues and principles our world would look a lot different and we may not be able to perceive the objects we do as easily or as precisely as we able to.
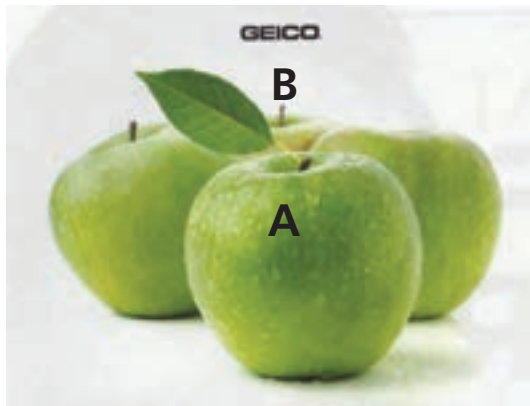
Figure 1. A depiction of the pictorial depth cue of occlusion.

Figure 2. A depiction of the pictorial depth cue of occlusion.
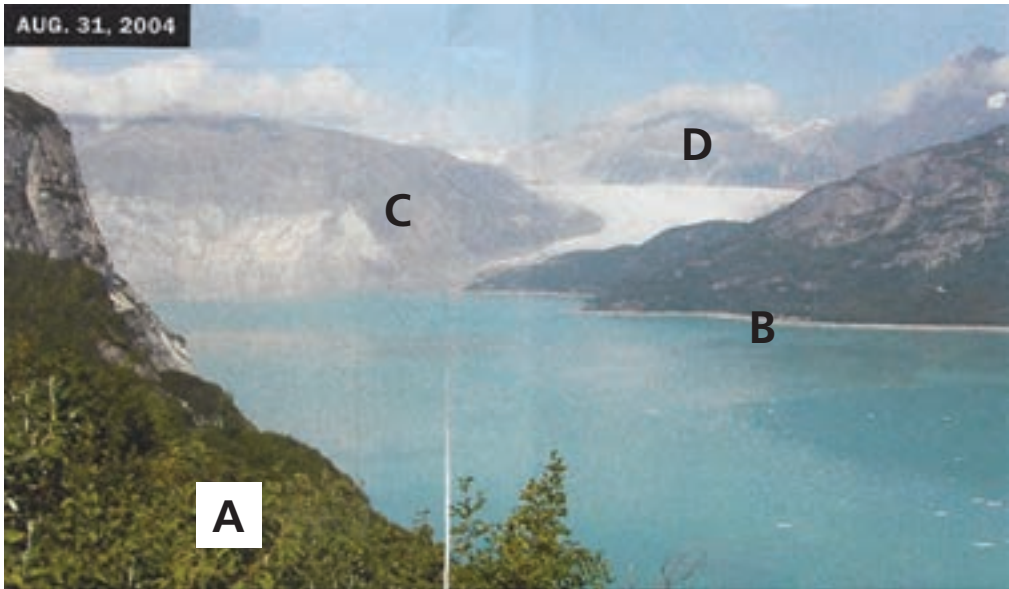
Figure 3. A depiction of the pictorial depth cue of atmospheric perspective.

Figure 4. A depiction of the pictorial depth cue of atmospheric perspective.

Figure 5. A depiction of the pictorial depth cue of relative size.

Figure 6. A depiction of the pictorial depth cue of relative size.
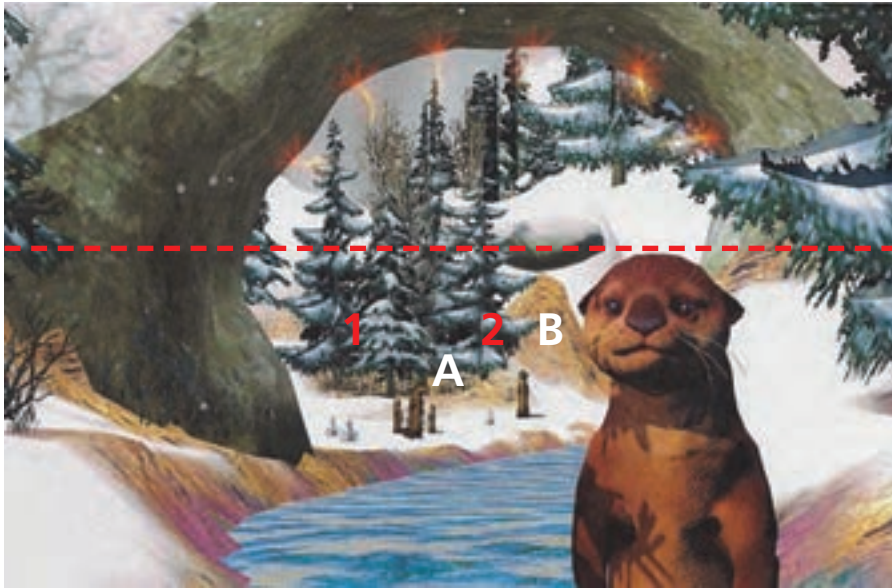
Figure 7. A depiction of the pictorial depth cue of relative height.
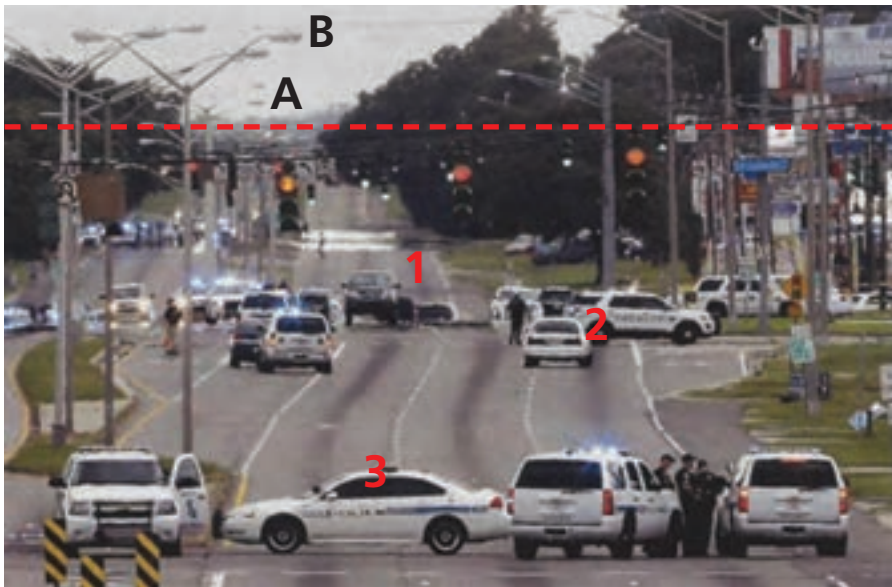
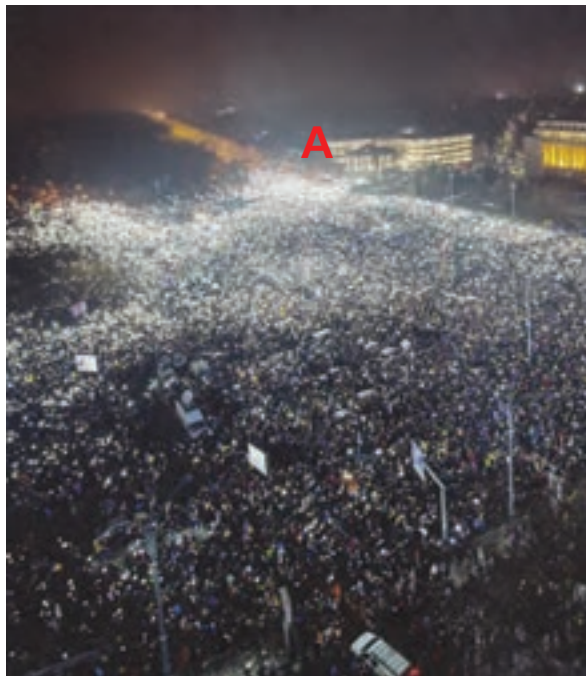*Figure 8.* A depiction of the pictorial depth cue of relative height.

Figure 9. A depiction of the pictorial depth cue of texture gradient.

Figure 10. A depiction of the pictorial depth cue of texture gradient.
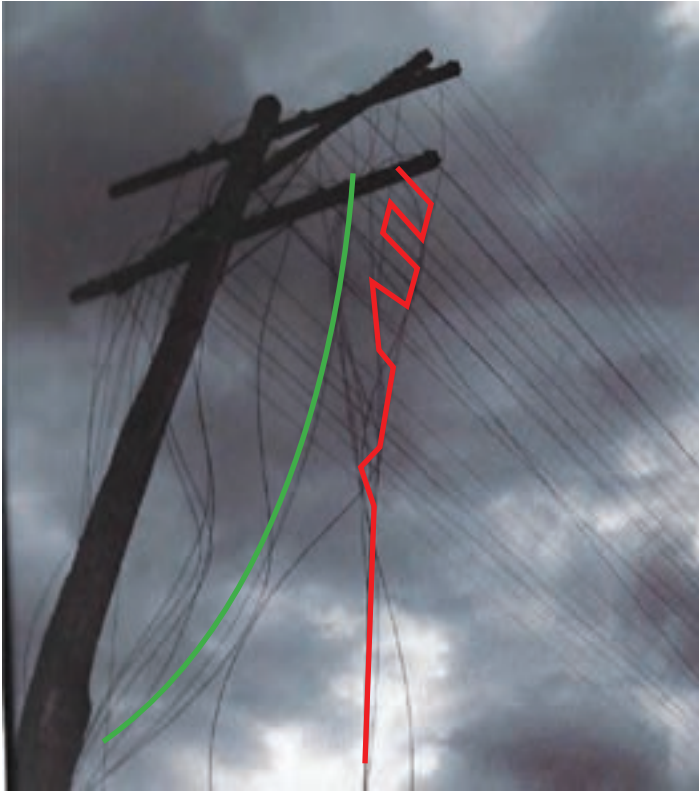
Figure 11. A depiction of the Gestalt principle of good continuation.
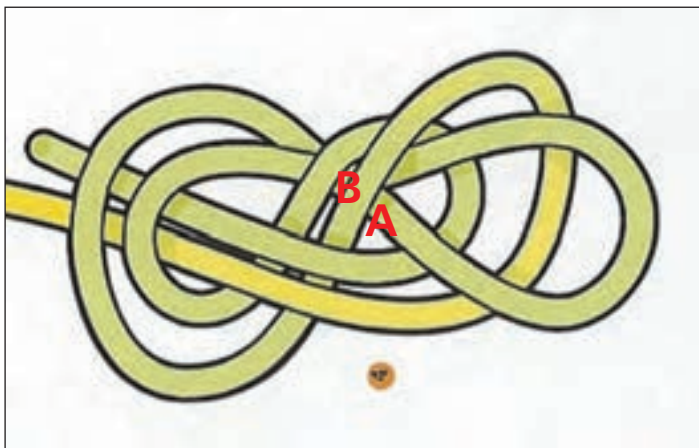
Figure 12. A depiction of the Gestalt principle of good continuation.

Figure 13. A depiction of the Gestalt principle of similarity.

Figure 14. A depiction of the Gestalt principle of similarity.

Figure 15. A depiction of the Gestalt principle of proximity.
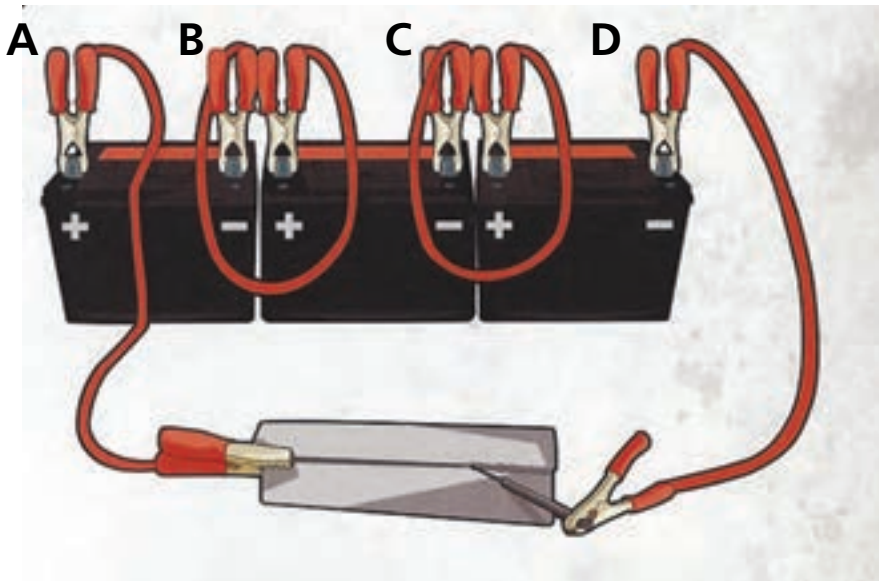
Figure 16. A depiction of the Gestalt principle of proximity

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Figure 2.   Ester-C. [Photograph]. (2017). Psychology Today, 50(1), 13.

Figure 3.   NASA. [Photograph]. (2017). TIME, 189(5), 18-19.

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Figure 5.   United States Postal Service. [Photograph]. (2016). TIME, 188(5), 13.

Figure 6.   Rinaldi, J. (2016). [Photograph of protestors in a field]. TIME, 188(24), 23.

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The Unmanning of Abercrombie Smith: Loss of English Identity in "Lot No. 249"

Daniel Melvill Jones

ᵺ **Gothic fiction is concerned with** "a pervasive awareness of something not quite right that lurks just as the edges of vision, in moments of silence and in unauthorized or unfamiliar spaces" (Macfarlane 76), while campus novels are set in familiar, carefully ordered spaces that share codes of conduct and culture. By setting his Gothic short story "Lot No. 249" amongst the turrets and hedgerows of Oxford University, Arthur Conan Doyle combines the Gothic and campus genres, bringing the anxieties of 19th century England into one of its oldest and most settled establishments. In "Lot No. 249", Doyle uses the presence of a mummy in Oxford University to challenge his protagonist's sense of 19th century English superiority, cultivated by English Imperialism and the confidence of modern science, and dislodge him from his academic identity, including his community, professionalism, and scholarly ardour.

From its very first paragraph, Doyle firmly situates the story in "so famed a centre of learning and light as the University of Oxford" ("Lot No. 249" 109). Abercrombie Smith, the central character, lives in a building that is itself steeped in academic prestige, described as "a corner turret of exceeding great age" whose steps have been "hallowed by the tread of so many generations of the seekers after knowledge" (109). The town and surrounding countryside of Oxford colour the background of the story, from the crowd of students and officials rushing to the river for a boat race, to the peaceful hedgerows that Smith walks amongst (125, 132). Smith himself epitomizes Englishness in his mannerisms ("he had all the national hatred of making a scene"), physical characteristics (his "Saxon phlegm"), and his traits of perseverance and fitness honed by his sporting habits (a "[man] whose [mind] and tastes turned naturally to all that was manly and robust") (114, 115, 110). Smith surrounds himself in a community of similarly English academics, including Jephson Hastie, his fellow medical student and oarsman, Tom Styles, the old college servant, and Doctor Plumptree Peterson, Smith's mentor and friend to whose "good cellar and better library"[1] he retreats for companionship and advice (127).

These characteristics are contrasted with those of the story's villain, Edward Bellingham, and his companion, Monkhouse Lee. Bellingham's reputation precedes his appearance in the story, for Hastie tells Smith that there is "something damnable about him—something reptilian" and shudders to think of Bellingham's engagement to Lee's sister (111). The descriptions of

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[1] Doctor Peterson's lifestyle of dignified comforts perhaps also mentors Smith in his hoped-for life of English academic privilege.

Lee and Bellingham's physical characteristics are the opposite of Smith's Englishness. Lee's complexion is "olive-skinned and dark-eyed, of Spanish rather than of an English type" while Bellingham's face is "unnatural" and his body "very fat" (115). Yet while there are physical contrasts between Bellingham and Smith, their discrepancies go beyond their skins and into their ideologies.

Smith and Bellingham, while sharing the same academic setting, have contrasting academic disciplines. Smith is defined by his medical practice. More than just a student of medicine, Smith has already garnered an impressive career in the practice (113). His study is filled with medical books and implements, showing to what extent his life is immersed in his science (110). Throughout the story Smith processes events through the language of probability, using phrases like "most likely" and "it must have been" (123, 128). His medical expertise is even called upon at several points to save the lives of others. In an age that was becoming increasingly defined by science, Smith's authority in the practical sciences are part of what makes him an ideal 19th century Englishman.

While Smith and Hastie are familiar with the medical sciences, they distrust Bellingham's mastery of foreign languages. When Bellingham is first mentioned, he is placed beyond the dichotomy of "medicine or classics" that splits the university and into the realm of "eastern languages" (111). In light of Smith and Hastie's authoritative knowledge on the human body, Hastie's recounting of Bellingham's spell-like mastery over foreign tribes comes across as eerily supernatural, with Hastie using the word "demon" to describe Bellingham's ability (111). This is a realm of knowledge and power that Smith is unfamiliar with, as he later confesses to Bellingham (117). As an ethnic outsider who is nonetheless clearly exceptional in his discipline, Bellingham is a threat to Smith and Hastie and the English establishment before his mummy is even introduced. Bellingham's membership in the university and his presence in Smith's turret challenges the authority of Smith's medical empiricism.

On the surface of the narrative, it is the supernatural presence of Bellingham's resurrected mummy that terrorizes Smith and his school, driving him to confront Bellingham and destroy his ability. Yet in Gothic literature the presence of the supernatural is often a stand-in for deeper cultural anxieties. In "Lot No. 249," Doyle uses Bellingham and his mummy to reveal three such anxieties. The first is Victorian anxiety over the presence of England in Egypt. When Hastie describes the power Bellingham's language had over eastern peoples, his description is riddled with casual racism. He describes tribes who are "ready to kiss the hem of [Bellingham's] frock-coat" and hermits who "sit on rocks and scowl and spit at the casual stranger" but who "lay down on their bellies and wriggled" before the imperial power of Bellingham, who reacted by "strutting about among them" (Doyle, "Lot No. 249" 111-12). Yet the English right to Egypt in 1884 was not certain. Bulfin recounts how in order to maintain access to the Suez Canal "Britain unofficially occupied Egypt in 1882" and the resulting "issue of Britain's ambiguous relationship with Egypt became popularly known as "the Egyptian Question," a recurrent plague to British foreign policy over the ensuing decades" (412). No wonder Doyle's story, written just two years after this invasion, features an Egyptian mummy wrecking havoc on the inhabitants of Oxford. This story fits into the category of what Bulfin calls the "numerous tales positing the irruption of vengeful, supernatural, ancient Egyptian forces in civilized, rational,

modern England" (412). England had a troubled conscience because of its role overseas and the presence of a vengeful mummy in the heart of Oxford reflects such anxiety.

This uneasy imperialism can also be observed in Smith's reaction to Bellingham's study, which ought to have reminded both Smith and Doyle's readers of England's mastery over eastern countries. When Smith first enters Bellingham's space, it is described as "a museum rather than a study," crowded in every corner with artifacts from ancient Egypt (114). At that time, many in England saw ancient Egypt's former cultural mastery over the ancient world as a precursor to that of the British empire, with Holterhoff observing that some Victorians believed "a direct intellectual and hereditary line of descent connected Egypt to England" (316-17). A room so rich in Egyptian plunder would have enforced such a position. Furthermore, Macfarlane describes the Victorians' obsession with museums as "spaces in which objects from far-flung reaches of the empire were collected, catalogued, displayed and written into the master narrative of imperial rule" (78). She says that a Victorian curator's "classification, ordering, labelling" could be seen as a way of holding "unambiguous power over these objects" and so, by proxy, holding power over their foreign subjects (80). Instead, Bellingham's presence unsettles Smith for reasons that reveal the uncertainty of this English position.

Also reflected in this story is an anxiety over the limitations of scientific empiricism. Referring to what she calls "anxieties about the limits of knowledge," Macfarlane says that in Gothic fiction these "anxieties are articulated through what is arguably one of the most heavily regulated signifiers of scientific progress at the turn of the century: the body" (76). Bellingham's supernatural power lies outside the realm of scientific knowledge that Smith possesses, which calls into question the authority that Western science has over the eastern superstitions it has conquered. This uncertainty is reflected in Doyle's description in how Smith's anatomy textbooks are "adorned" with "great coloured maps of that strange internal kingdom of which we are the hapless and helpless monarchs" (Doyle, "Lot No. 249" 113). This is hardly a language of scientific triumphalism. Rather, it suggests a deficiency in scientific knowledge to explain the very body that Smith, with all his athleticism, can control so well.

Related to the rise of science is the doubt the mummy's presence casts on modern industrial progress. When Bellingham first shows Smith the mummy, the linguist asks, "I wonder how many modern works will survive four thousand years?" (118). Aviva Briefel, in her essay on mummy fiction, argues that the survival of intricate mummies "subverts evolutionary models that privilege western forms of production" and thus "isolates the narrative of progress" that was celebrated in the Victorian era (267). To Smith, a doctor whose practice consisted of extending life via the latest knowledge and technology, the continued existence and reanimation of an ancient mummy would have further eroded his sense of modern triumphalism.

The result of these threats is an unfolding of fear which originates in Bellingham before being gradually inherited by Smith. The first occurrence of fear in the story is Smith's response to Bellingham's scream, which is described as that "of a man who is moved and shaken beyond all control" (Doyle, "Lot No. 249" 114). Doyle details the effect this sound had on Smith: "He was a man of fairly firm fibre, but there was something in this sudden uncontrollable shriek of horror which chilled his blood and pringled his skin" (114). The sound unsettles Smith in ways that are uncharacteristic of both his Englishness and of his professional training.

Smith's inheriting of this fear can be traced throughout the story as its power grows over him. When he first sees the mummy, his reaction is one of inexplicable distaste: "There was a suggestion of energy about the horrid thing which made Smith's gorge rise" (117). When Smith rises to leave Bellingham with the mummy, it is Bellingham who exhibits unnatural fear, to which Smith responds with professional dignity:

'You're not going yet?' [Bellingham] cried, as Smith rose from the sofa.
At the prospect of solitude, his fears seemed to crowd back upon him, and he stretched out his hand to detain him.
'Yes, I must go. I have my work to do. You are all right now. I think that with your nervous system you should take up some less morbid study.' (118)

Smith's attitude in this scene is one of casual dismissal and of curt, professional advice. Later, when Lee confronts Smith with vague but earnest warnings over Bellingham, Smith responds with the same sense of smug superiority: "That is childish. Why should I fear him, or any man?" (127). He leaves "feeling half-ruffled, half-amused, as any other strong, unimaginative man might who has been menaced by a vague and shadowy danger" (127). It is only after Smith's life-threatening encounter with the mummy that he himself lets out a "cry of terror" (127). When he describes this encounter to his mentor, Dr. Peterson, Smith labels his fear as "the fear of death[2]," which "unman[s]" him of his English professionalism (135, 133).

This fear disrupts Smith's academic identity in three key ways. First, it distracts him from his studies. From Smith's first introduction to the story, Doyle emphasizes his dogged commitment to his academic work: "the coming examination... held him to his work, save for the few hours a week which health demanded" (110). Smith describes himself as "reading hard" (111). He is "bent" on making a name for himself at the school, "if hard work and devotion could accomplish it" (113). He seldom takes breaks from his study and his dedication to it is so constant that Hastie remarks that "an earthquake might come and knock Oxford into a crooked hat, and you would sit perfectly placid among the ruins" (122). Yet as Smith's concerns over Bellingham and his mummy grow in his mind, his suspicions increasingly keep him from his studies: "With all the will in the world, he found it very hard to keep his mind upon his work. it would slip away to brood upon the man beneath him and upon the little mystery which hung around his chambers" (124). In frustration, Smith literally throws his medical textbook across the room, in an act that represents the way the intrusion of the mummy dislodges Smith from academia (124). Smith complains that the mummy has "spoiled my night's reading," but it has done more than that and has spoiled his academic standing (124). As the story continues, instead of Smith's former habit of spending half the night brooding over his books, he "spend[s] half the night... brooding over the strange events of the evening" (113, 132).

Smith's encounter with the mummy also unsettles his belief in empirical science. When Hastie tells Smith of the mummy's attack on Long Norton and that Norton believes the assailant is supernatural, Smith "puffed his scientific contempt," demonstrating that his empiricism is

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[2] It is this fear that animates much of English medical study.

still intact (123). Yet later, when Smith has had more experience with the mummy's power, he begins to question his beliefs:

> What had been a dim suspicion, a vague, fantastic conjecture, had suddenly taken form, and stood out in his mind as a grim fact, a thing not to be denied. And yet, how monstrous it was! how unheard of! how entirely beyond all bounds of human experience. An impartial judge, or even the friend who walked by his side, would simply tell him that his eyes had deceived him, that the mummy had been there all the time, that young Lee had tumbled into the river as any other man tumbles into a river, and that a blue pill was the best thing for a disordered liver. (130-31)

In this monologue, Smith's training in medical knowledge and the beliefs held by his community of fellow practitioners are contrasted with his growing awareness of the supernatural power of the mummy. As Smith suggests, his fellow academics, including his friends, would be quick to prescribe a pill and show Smith evidence to the contrary.

Indeed, his community does try to convince him otherwise and Smith's breaking with them is the third disruption that the mummy brings into his life. An example of Smith's growing isolation is that when he intends to talk to Monkhouse Lee, his "mind was too full of the incidents of the evening" to actually have a conversation with his fellow academic (130). Smith's breaking from both his enlightenment beliefs and his community can be most clearly seen when he describes his own close encounter with the mummy to his mentor, Doctor Peterson. After telling his story to Peterson, the doctor reacts with a "very puzzled expression" and attempts to bring Smith back to his empirical ways, insisting that "each incident in itself is capable of a more natural explanation" (134-35). When Smith persists in his supernatural explanation and shares his plan of vengeance, the doctor almost commands Smith to take a more reasonable reaction: "My dear Smith, you are talking wildly. Let me beg you to go to bed" (136). When he disobeys this doctorly order, Smith has made his final break from his community.

The mummy's mastery over Smith's world demonstrates what Ó Donghaile refers to as the destabilization of imperial power: "While the process of imperial assimilation is symbolised by the private museum that Bellingham keeps in his rooms, packed with colonial commodities such as relics, ancient scrolls, weapons, carved deities, a stuffed crocodile and, of course, his murderous mummy, it seems in the end that it is the mummy and not he who is in control" (66). The mummy's disruption of Smith's life reveals the insufficiency of Imperialism's moral high ground over its colonized countries. It is therefore understandable that Smith's reaction to this manifestation of this threat is to destroy the mummy in a vigilante-like attempt to recover the identity it took from him.

This recovery begins with Smith's Englishness. Earlier in the story, Smith threatened Bellingham with an old brand of English justice: "They have given up burning folk like you, but we still keep a hangman... You'll find that your filthy Egyptian tricks won't answer in England" (Doyle, "Lot No. 249" 132). Smith takes up the mantle of that hangman, with the impression that he is fulfilling some noble obligation. "I feel that a public duty rests upon

me," he explains to Doctor Paterson (136). Rather than turning to governing authority, Smith acts out of his own sense of justice and evidence, confessing to Bellingham: "They tell me that the law can't touch you. But I have a law that will set matters straight" (138). With a show of force and confidence, Smith enters the Egyptologist's study with all the swagger of the Empire behind him, compelling Bellingham, under the threat of death, to destroy his imperial possessions and power. By demolishing the Eastern power that haunted his community, Smith restores the authority of the Empire. He then speaks to Bellingham with a sense of bravado and condescension ("Now, Master B.") that echoes the racist language Hastie used to describe Bellingham at the beginning of the story (139, 111-12). By acting this way, Smith is his "own man again now," brought back from the "unmanning" he experienced after his fright with the mummy (133). With Bellingham slinking away to Africa and Smith returning confidently to his studies (140), it seems that all Smith had once lost has now been set right.

Yet the readers and characters of Gothic stories ought not return to their routines maintaining their former sense of confidence. Despite the relatively tidy conclusion, the beginning and ending paragraphs of the story suggest that the recounting of these events ought to lead to an uncertainty over humans and their institutions. The story's last sentence conveys such a message: "But the wisdom of man is small, and the ways of nature are strange, and who shall put a bound to the dark things which may be found by those who seek them?" (140). It echoes Doyle preface to the original volume from which "Lot No. 249" first appeared, in which he says that "A tale which may startle the reader out of his usual grooves of thought, and shock him into seriousness, plays the part of the alterative and tonic in medicine, bitter to the taste, but bracing in its results" (*Round the Red Lamp*, 6). In this story, Doyle has given his English audience just such a tonic, unsettling their trust in some of their country's proudest identities.

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Women of the Plains

Barbara Telford

⁖ **The Blackfoot Nation and other Indigenous Plains people** occupied the plains for thousands of years before the arrival of the Canadian Pacific Railway and the settlers who arrived on its rails. The European sense of societal superiority and the colonial desire to tame the wilderness and its inhabitants created an environment riddled with racism and discrimination. Indigenous women, in particular, were victim to Victorian notions of race, marriage, and sexuality. Myths and folklore fostered stereotypes about Indigenous women that became part of the settler narrative. This narrative created an environment in which it was impossible to create one nation out of two. On the western plains it was in the private domestic sphere that Indigenous and settler women came together, providing care, sharing knowledge, and perhaps, developing relationships. Based on the writings of settler women, it appears that Indigenous women were not necessarily appreciated or even at times, acknowledged, and there are no written accounts of Indigenous women's side of the story.[1] However, exploration of the relationships between these two groups of women deserves some examination.

In a lecture he gave in 1855, John Travers Lewis, Lord Bishop of Ontario, defined civilization as encompassing "literate knowledge, formal education, advanced science and technology, as well as arts and literature."[2] In the same lecture he credited Christianity as being the method through which Britain had been civilized. Though there was some acknowledgment of the contributions of other, earlier cultures, to the development of Victorian society by the middle of the 1800s, the British people believed that they had achieved a level of civilization beyond that of any previous culture. Having reached the pinnacle of civilization was not an honor to be taken lightly, and this notion of superiority was accompanied by a sense of responsibility to bring other peoples out of the wilderness to a more civilized life.[3]

There exist two main tropes of Indigenous women in folklore. The first is that of the 'Indian Princess'. She is young, beautiful, and virtuous, an invaluable source of help to the white

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[1] Kristin Burnett. *Taking Medicine: Women's Healing Work and Colonial Contact in Southern Alberta*, 1880-1930, (Vancouver: UBC Press, 2010), 66.

[2] A. A. Den Otter, *Civilizing the Wilderness: Culture and Nature in Pre-Confederation Canada and Rupert's Land*. (Edmonton: University of Alberta Press, 2012), Xiii.

[3] Otter, *Civilizing the Wilderness*, xiv-xv.

men struggling to survive in the woods that she calls home, she is accepted and appreciated.[4] Most people are familiar with the story of John Smith and Pocahontas. In a story that bears a remarkable similarity to the 1624 story told by Smith, an old Scottish ballad tells the tale of an Englishman, who, while travelling in a foreign land is taken captive by a group of people whose skin is darker than his own. The king wants to execute his captive, but his beautiful daughter steps in and saves his life. The man leaves but the princess follows him to his homeland, where the Englishman marries her, she becomes a Christian and they live out their years in wedded bliss.[5] The tale told in the ballad matches the story of Gilbert Beket, and a similar story can be found in a collection of popular tales called *Gesta Romanorum*. *Gesta Romanorum* is thought to have been printed before 1300 and can safely be assumed to have been part of oral storytelling before that. While details of the adventurous tale vary, the core of the story stays the same.[6]

On the other end of the spectrum resides the 'Squaw'. She is opposite to the 'Indian Princess' in every way. She is immoral and lazy, and rather than being a helpmate to the white adventurer, she is a hindrance to the advancement of civilization. The 'Squaw' is plagued by drunkenness, stupidity, and lust. "Tale after tale describes the Indian whores, their alcoholic and sexual excesses with white trappers and hunters."[7] It is the 'Squaw', not her beautiful 'Indian Princess' sister that dominated the settlers' view of Indigenous women in the late 1800s.[8]

If folklore and myth provided the foundation for a flawed relationship with Indigenous women, the Victorian belief system gave it its rigid structure. Victorian ideas surrounding gender, sexuality, and marriage were contrary to the Plains understanding of those same ideologies. This difference aided in reinforcing commonly held misconceptions regarding Plains women, which in turn made it virtually impossible for them to be seen as unique individuals with any depth.[9] The Euro-Canadian belief in the superiority of their culture, combined with their perceived mandate of bringing British knowledge and cultural values to the furthest reaches of the Colonies further allowed the settlers to justify their behavior.

"The very heart of nineteenth century matrimony" was its "permanence, its solemnity, and its emotional intimacy."[10] Analysis of Victorian courtships and marriages uncover a complex array of traditions and expectations however, these customs were rooted in some basic principles. Marriage, was a lifetime commitment to one other person, agreed upon mutually,

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4   Sarah Carter. "Categories and Terrains of Exclusion: Constructing the 'Indian Woman' in the Early Settlement Era in Western Canada." in *In the Days of Our Grandmothers: A Reader in Aboriginal Women's History in Canada*, ed. by Mary-Ellen Kelm and Lorna Townsend (Toronto: University of Toronto Press, 2006), 147.
5   Rayna Green. The Pocahontas Perplex: The Image of Indian Women in American Culture." *The Massachusetts Review* 16, no. 4 (1975): 699.
6   Ibid., 699.
7   Green, The Pocahontas Perplex, 711.
8   Carter, Categories and Terrains, 147.
9   Green, The Pocahontas Perplex 714.
10 Ward, Peter Ward, *Courtship, Love, and Marriage in Nineteenth Century English Canada* (Montreal: McGill Queens University Press, 1990), 148.

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and typically based on love. Sex was confined to marriage, and preserving a daughter's virtue, or the perception of her virtue, was of utmost importance. Closely related individuals were not permitted to marry, whether the relationship was by blood or not.[11] The attempt to translate Victorian gender roles and expectations to the existing norms surrounding Plains culture lead to significant difficulties within the Indigenous community.[12]

In contrast to the Victorian beliefs surrounding monogamy in marriage, many Plains men had more than one wife. In some instances, second wives were brought into the family to preserve other family connections. For example, in the event of a husband's death the widow had the option to marry her deceased husband's brother, at times a husband would marry one of his existing wives' sisters. There is no word for polygamy in Cree or Blackfoot which indicates that marriages with more than one wife were not considered any different from the monogamous marriages that existed alongside them, they were all simply, marriages.[13]

The Plains way of life was work intensive, and with so much work to be done the presence of additional wives would have been seen as a blessing rather than a burden. Additionally, a larger family meant more relatives, which increased the status and wealth of the family. Since it was only wealthy men who could afford to support large families, parents did not object to their daughter becoming a second wife, knowing that she would be well provided for and her workload would be shared. Settlers failed to recognize the benefit of these relationships, believing instead that polygamy lowered women to no better than slaves to their husband. Assumptions were also made that the reason for multiple wives was simply a desire for many sexual partners.[14]

In a Plains marriage, divorce occurred when the wife left the home of her husband and returned home to her own family, taking her tipi, her belongings, and most often her children with her.[15] Victorian divorce, on the other hand, was legislated and complicated, and because it required an act of Parliament, was almost an impossibility.[16] The idea that the wife had access to property of the marriage would have also seemed foreign to the settlers, as according to English common law when a woman married, her property became her husband's and any property acquired throughout the marriage also belonged to the husband.[17]

Plains women enjoyed greater freedom than the settler women. Frowned on by Victorian culture, sexual relationships before marriage were tolerated by the Plains people.[18] Additionally, it was not considered unusual for a woman to take on what would be typically

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[11] Ibid., 19.

[12] Carter, Sarah. "Creating "Semi-Widow" and "Supernumerary Wives": Prohibiting Polygamy in Prairie Canada's Aboriginal Communities to 1900," 146-169. In *Contact Zones: Aboriginal & Settler Women in Canada's Colonial Past*, ed. Katie Pickles and Myra Rutherdale (Vancouver: UBC Press, 2005). 131.

[13] Carter, Creating Wives, 132-135

[14] Ibid., 132-135.

[15] Carter, Creating Wives, 136.

[16] Ward, *Courtship, Love and Marriage*, 37.

[17] Ibid., 38.

[18] Carter, Creating Wives, 136.

male duties. For example, Blackfoot women could lead war parties, and those women who did, were admired and respected for their abilities. "The 'manly-hearted women' of the Blackfoot excelled at feminine tasks, and were married to men, but they also displayed characteristics classified as 'masculine'; they were aggressive, independent, bold, and sexually active."[19] A woman exhibiting such masculine characteristics put her at odds with the Victorian idea of "true womanhood" which had originated in the early 1800s. This ideology placed women at the center of the home where she was obedient and submissive to her husband.[20] An aspect of Blackfoot society completely ignored by settlers, was the important place women occupied in Blackfoot society. They "could own property, receive and exercise medicine power, and give names. She was a necessary part of every ceremonial transfer; custodian of the bundles that her husband bought."[21]

Between 1871 and 1877, treaties were signed with the Plains people that gave the Government of Canada legal control of most of the prairies. In 1883, construction of the Canadian Pacific Railway through Alberta was completed, and its completion was expected to facilitate the arrival of more settler women to the plains. Settlement did not occur as quickly as the government would have liked, nor, as quickly as settlers would have liked if a letter written by Mary E. Inderwick, in 1884, is any indication. Mary wrote from her Pincher Creek, Alberta ranch remarking that the Indigenous population still greatly outnumbered the settlers and complained about the lack of female company on the ranch and describing how she had offered to help the local settlers to fix up their homes in order to attract a bride from the East. Later in 1885, in the District of Alberta, the settler population was approximately 4,900 people whereas Metis and Indigenous people numbered 9,500. Government officials felt that the Indigenous population was to blame for the lack of settlement and began restricting them in an attempt to draw more people to the west.[22]

Government reports stated that Plains women were "idle and gossipy, preferring tents to proper housing because tents required less work to maintain and could be clustered in groups that allowed visiting and gossip." Additionally, reports from the 1890s, claimed that it was women's failure to clean up the dust from their dancing that was to blame for the spread of tuberculosis. Negligent care of Indigenous children was asserted to be the cause of the high infant mortality rate on reserves and the misbehavior of those children who did survive, was blamed on poor mothering. Unofficial reports noted that the poverty on reserves was due to lack of adequate supplies for cleaning and that living conditions were likely better in the tipis rather than the huts and shacks they had been forced to live in. Nonetheless, on the official record, women were to blame for the squalid conditions in which they lived.[23]

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[19] Ibid., 136.

[20] Elizabeth Jane Errington, *Wives and Mothers School Mistresses and Scullery Maids: Working Women in Upper Canada 1790-1840* (Montreal: McGill Queens University Press, 1995), 21-23.

[21] Carter, Creating Wives, 136.

[22] Carter, Categories and Terrains, 146-148

[23] Ibid., 149-150.

Newspaper reports supported government findings. In 1886, scandal erupted in the NWMP when it was reported that between 1874 and 1881, officers were living with Plains women that they had allegedly purchased from the women's families, this practice was only ended, or at least conducted more discretely, with the arrival of more settlers.[24] An article in the Toronto Globe defended the behavior of the North West Mounted Police officers blaming the women; claiming that Indigenous women were "notorious the world over" for their "loose morals" concluding that "no man in the world was so good as to teach her better or to try and reform them." The Fort Macleod Gazette claimed that marriage was not a part of the Plains culture, rather, women were purchased by men, arguing that "they were prostitutes before they went to live with white men, who did not encourage this behavior but were simply 'taking advantage of an Indian's offer.'" A government pamphlet released regarding the incident confirmed the Gazette's claim that it was cultural practice among the Plains people to sell their daughters. This information was inaccurate but added to the misinformation circulating about Plains traditions.[25]

While the differences were many, cultural contact was inevitable, and the field of health and healing was a place in which cultural contact occurred, particularly among women.[26] Physicians preferred to practice in urban areas making it difficult for rural settlers to access a doctor. Doctors often did not make enough money to support themselves, and so had to pursue additional employment. Dr. Lafferty, who worked for the Department of Indian Affairs and provided medical care for the Blackfoot for twenty years, still ran his own practice in Calgary, and at various times was a rancher, a banker, a shop owner, and was from time to time Calgary's mayor to make ends meet.[27] Remote locations and busy doctors complicated access to health care and Indigenous women were a valuable resource for doctors and their patients.

Lack of doctors, left rural women reliant on books or tradition passed down from their own mothers, usually travelling to be with family when the birth of a child was close. Due to this, women often found themselves in the position of calling on Indigenous women for help with childbirth[28] Mary Lawrence, a woman living in Northern Alberta at the turn of the century, was assisted by a local Indigenous with the delivery of her child. This was not an uncommon practice.[29] Doctors, knowing they could not be available for every birth and often lacking in the specialized obstetrical skills were heavily reliant on the midwives' skills and knowledge when it came to childbirth.[30]

Indigenous women also helped with other types of medical issues. John Maclean, a Methodist missionary at the Blood Reserve was appreciative of the healing skills of a local Indigenous woman and advised his wife, Sara Ann, to have an infected finger looked at by the local healer, saying it would be healed quickly if she did so. It appears, however that she did

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[24] Carter, Categories and Terrains, 152.

[25] Ibid., 155-156.

[26] Burnett, T*aking Medicine*, 5.

[27] Ibid., 55.

[28] Burnett. *Taking Medicine*, 50.

[29] Ibid., 55.

[30] Ibid., 56.

not take his advice as her finger was eventually amputated. Unfortunately, there is no record of if she went to see the healer, what condition necessitated the eventual amputation, or who performed the amputation. Later that year, Maclean recorded that a Blackfoot family was caring for an ill cowboy in their home and that often he would bring Indigenous women to treat sick settlers in their own homes.[31]

A third way in which Indigenous women helped with healing was by sharing their knowledge of the local plants, many of which were useful for medicinal purposes.[32] An unpublished manuscript written by a Metis woman who had settled with her white, fur trader husband in the Pincher Creek area recorded various ways in which the Blackfoot created natural remedies for ailments. Including the use of poplar bark for treating muscle ailments, and the construction and usefulness of sweat houses. Other similar manuscripts exist, including one which notes a specific kind of fungus that could be used to stop bleeding and be used as an anesthetic.[33]

Though Indigenous women obviously had an important role in both their own, and settler culture it is evident that settlers were unwilling to acknowledge the value of their knowledge and skills. Mary Lawrence, though likely grateful for the safe delivery of her child, is said to have turned to the midwife only because it was a better alternative than her father in law who was the only other person available.[34] Given John Maclean's great faith in the skill of the healer whom he recommended his wife see for her finger it seems strange that the finger was ultimately amputated. Though it is sheer speculation, the amputation could indicate that Maclean's wife did not see the healer at all, and her decision to ignore the help that might have saved her finger quite possibly could have been a result of the settler belief in the superiority of their own medicine over the skills of Indigenous healers.[35] Manuscripts written in the time period regarding information learned from Blackfoot people about medicinal uses of local plants rarely mention who the information was received from, perhaps in an effort to mask the human aspect of the transmission of the information.[36]

Indigenous women, respected and admired by their own people, were reduced to a negative stereotype by the patriarchal notions of Victorian society. Their way of life was lost, and their movements restricted by the government, nonetheless they persevered and shared their knowledge of medicinal plants, assisted in healing the sick, and helped deliver children. Women provided a point of connection for the two cultures; the point of contact was domestic in nature and much more personal than anything that was possible in the male dominated world of politics. These women shared a concern for the health of their families and the people they loved. Unfortunately, due to the private nature of the domestic sphere and the societal circumstances which discouraged contact between the two groups, the extent and nature of the relationships between Indigenous and settler women may never be known.[37]

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[31] Ibid., 59.
[32] Ibid., 50.
[33] Burnett. *Taking Medicine*, 60.
[34] Ibid., 55.
[35] Ibid., 59.
[36] Ibid., 60.
[37] Burnett. *Taking Medicine*, 65-66

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Quiz Development for the Introductory Organic Chemistry Laboratory

Dylon Thompson

❧ Introduction

In order to improve student learning and development in a higher education setting, outdated educational strategies may need to be replaced with more efficient teaching practices. The creation of new innovative teaching methodologies may be an onerous task, as there is a distinct line between the realization of a student's full academic potential and the amount of resources available to the instructor to invest into the student. Implementing an effective new teaching methodology to help students learn is made more complicated for laboratory instructors, as the instructors only meet with students once per week.

Prior to the Fall 2018 semester, the Introductory Organic Chemistry 351/353 laboratory (Chemistry 351/353) at St. Mary's University (StMU) required students to write an experimental procedure in their notebooks prior to coming to the laboratory. This instructional method encourages students to read and summarize each experiment's procedure into their notebooks so that they can perform each laboratory safely and competently. Although this instructional technique performs well in regards to preparing students for completing the laboratory, students seem to lack comprehension as to why they are expected to perform certain laboratory techniques, how to perform course-relevant calculations, and why they are instructed to use particular reagents during each step of an experiment. Students appear to be too fixated on summarizing the experimental procedure into their notebooks and are not critically analyzing the significance of each step of an experiment. In order to help students better understand the Chemistry 351/353 laboratory course content, online Moodle quizzes were created and were completed in tandem with the students' writing a summary of each laboratory's experimental procedure into their notebooks. By having students complete the Moodle quizzes and write the experimental procedure into their notebooks for each experiment, it was hoped that the students will having increased confidence, competence, and understanding of the content in the Chemistry 351/353 laboratory.

Before creating Moodle quizzes for Chemistry 351/353 at StMU, a review of other institutions' syllabi was conducted. The intention of reviewing various organic chemistry laboratory syllabi was to gain insight as to what other higher education institutions are doing to promote students' understanding of laboratory course content. Among the few introductory organic chemistry syllabi that were open-access, Utah State University, Xavier University of

Louisiana and the University of Calgary [1-4] were observed to use quizzes. The quizzes used by Xavier University of Louisiana and the University of Calgary serve as low-weighted assessment strategies, as the quizzes are given to students in the laboratory prior to starting the experiment [2-4]. The use of a closed-book in-class quiz does not create a low stress environment that aids students' learning of new course content. Rather, the quizzes used by Xavier University of Louisiana and the University of Calgary seem to be constructed with the intention of assessing student comprehension of course material, which implicates that students would have to learn and study for these quizzes prior to attending the laboratory. Although this method of using quizzes may cause students to study the experimental procedure prior to coming to the laboratory, it does not guarantee that the students understood the content of each experiment completely.

It appears that the quiz implemented by Utah State University was the only quiz among these institutions oriented towards helping students learn course content prior to attending the laboratory [1]. It is likely that the online pre-laboratory quizzes used by the Utah State University were the most beneficial to the students since the quizzes were individually worth low points, open book, and the students were given 30 minutes to complete the quiz [1]. These factors decrease students' stress and promoted an environment where the students can complete the quiz and reflect on the feedback provided by the quiz [5]. The pre-laboratory quizzes created for Chemistry 351/353 at StMU were constructed in consideration of the preceding analysis.

The decision to create online pre-laboratory quizzes, rather than using other learning formats such as pre-laboratory online videos, was ultimately based on the realization that a 10-minute video may take from 4 to 20 hours to create depending on the complexity of the topic [6]. Although online videos have been observed to help students feel more prepared for laboratory experiments [7], some of the literature also indicated that the use of online quizzes at post-secondary institutions can provide effective feedback for students to enhance their ability to learn course content [8-10]. However, variability among the effectiveness of online quizzes was found to be directly related to the construction of the quiz [10]. Factors relative to quiz creation, such as: format of questions, quiz duration, quiz access time, number of questions, and number of quiz attempts are essential to ensure student success.

The quizzes were assembled using the Moodle open-source learning system, rather than other software or online programs. Moodle was used to create the quizzes, as each student has a Moodle account created upon enrollment at StMU. As such, the students are familiar with using Moodle to access course materials which made it easier for students to access. Moodle was also a desirable platform to make quizzes, as it was free to use, at no additional cost.

To ensure optimal learning for students, the Moodle quizzes were formatted with multiple choice questions (MCQs) as they are an effective and reliable medium to test students [11]. MCQs possess an advantage over short answer questions, since MCQs do not require the instructor to revise students' written answers for proper grammar, spacing or capitalization in order for Moodle to accept students' answers. To ensure question variety, MCQs were formatted as: single best answer, multiple best answers, true/false questions, and matching questions [11].

In addition to quiz question format, quiz duration, and quiz access time were also considered to ensure optimal student learning. Among four quiz models used by Marden et al., the alterations to quiz format that significantly increased student final examination grades were the implementation of unlimited time limit for each quiz attempt and unlimited number of attempts (i.e., an unlimited time limit and unlimited number of attempts was permitted until the quiz was closed and a new quiz opened) [10]. It is likely that the changes to the format of the quizzes were of great benefit to the students, as they may have helped students feel more relaxed while completing the quizzes. Studies in the literature have concluded that students prefer to have more than one quiz attempt, as it bolsters student confidence, which may lead to increased understanding [10,12]. Reducing factors that contribute towards student anxiety and stress has been observed to increase student learning [5]. To help the students feel more relaxed, the Moodle quizzes were constructed in accordance to the following format: have more than one attempt, to be only accessible for one week before the experiment was conducted [12], to have an unlimited time limit when attempting to complete the quiz (i.e., each quiz was accessible for one week and closed one hour prior to the experiment), to be unsupervised, to be worth a low amount of grade points [10], and should use question-specific feedback to encourage student learning [7]. Little research has been done in regards to determining the effect of quiz length on how well students learn. It currently appears that the number of items on each quiz observed in the literature is respective to the amount of content that the quiz was designed to assess. In order to create the most helpful online quizzes possible, more effort was placed into the design and efficacy of the quiz questions rather than focusing on the number of questions.

Many journal articles used student surveys in order to improve their quiz format [5,8-10,12-16]. After the Chemistry 351 quizzes were created and implemented in the Fall 2018 semester, a student survey was constructed with the intention of measuring student approval of the quizzes and to evaluate the format of the quizzes. Using a student survey was an integral component of evaluating the success of the Moodle quizzes, since learning tools that are intended to enhance student comprehension of course content may fail if students do not perceive them to be helpful [11]. It was extremely important that student approval of the Moodle quizzes was determined and evaluated.

The goal of this paper is to outline the creation process of Moodle quizzes for Chemistry 351/353, the creation of the student survey used to evaluate student approval of the quizzes, and finally discuss the results of the student survey. Challenges with the quiz format and student approval of the Moodle quizzes will also be addressed. Lastly, the effectiveness of the quizzes will be discussed in light of the student survey data and future recommendations for the Moodle quizzes made for Chemistry 351/353 will be provided.

Methods

Quizzes were created with the intention of fulfilling two goals: to create an environment that promotes student learning and to strive to meet the approval of students. In order to complete these two goals, factors relative to quiz creation such as: the format of the questions, question feedback, quiz duration, quiz access time, number of questions, and number of quiz attempts were considered.

Types of questions

MCQs, true or false, and matching question formats were used. Some questions used images in combination with text while other quiz questions only used text. Other question formats, such as short answer questions, were avoided as they may not help students learn as well as the aforementioned question formats.

Number of quiz attempts

The quizzes were set to permit two attempts at completing a quiz question, with the intent of encouraging student learning yet preventing students from arbitrarily guessing the correct answer, which may have occurred if more than two attempts at a question were allowed. To prevent students from guessing the correct answer, no second attempt was permitted for some of the true or false and MCQs that only had two answers to choose from.

Question feedback

Due to the quiz questions being MCQs, true or false, or matching questions, each incorrect answer for a particular question was given specific feedback in order to help guide students towards the correct answer. The decision to use answer-specific feedback to aid student comprehension of quiz content was based on information found in the literature, as students were observed to learn from the quizzes despite answering incorrectly [7]. Answer-specific question feedback also worked in tandem with students having another attempt at answering the question. Students who answered incorrectly on their first attempt at the question could use the feedback to arrive at the correct answer on the second attempt. Supplementary feedback was included in some of the correct answers as a means to provide additional information.

Question format

Each quiz question was put onto its own page to prevent students from viewing all quiz questions at the same time. Quiz questions were organized in sequential order and did not permit students to go back to a previous question or to skip a question. The answers within each quiz question were randomized, but the questions were not randomized throughout each quiz.

Number of questions

Quizzes were constructed with the intent of asking important and relevant questions to guide student learning. The number of quiz questions was generally not considered. The Moodle quizzes for Chemistry 351 averaged 8 questions per quiz whereas the Chemistry 353 quizzes averaged 9 questions per quiz. The shortest quiz had 4 questions whereas the longest quiz had 10 questions.

Quiz access time

Quizzes were typically opened one week prior to the date that the experiment was performed. This gave students ample time to complete the quizzes. Each quiz closed one hour prior to the beginning of the experiment. When one quiz closed, the quiz for the following week's experiment was opened for students to access.

Quiz duration

A finite time limit for students to complete a quiz attempt was not implemented for the online quizzes. The creation of a fixed time limit for students to complete the quiz may put additional stress and anxiety on students, which may negatively affect their quiz performance and learning [5]. Instead, quizzes were formatted with an unlimited time limit for students to complete the quizzes until the quiz had closed.

Survey construction

In order to gain permission to survey students, approval from the StMU's Research Ethics Board (REB) was obtained. Student participants from Chemistry 351 were surveyed the week of November 26th, 2018 after they had completed all of the quizzes for the course. The information from the student participants was kept confidential and was anonymously entered into MS Excel.

The survey investigated student approval of the Moodle quizzes. Survey questions were generally organized into one of three categories: quiz utility, quiz format, and when students completed the quizzes (Table 1). Quiz utility asked survey participants whether the quizzes accomplished their intended goal of helping students become more familiar with the expectations of each experiment and whether or not the students felt as if the quizzes helped them learn Chemistry 351 laboratory content. Survey questions also asked what students thought of the quiz format. These questions were asked in order to gain insight as to whether the quizzes were organized and presented to students in a helpful manner. Lastly, the survey asked students when they completed the online quizzes. These questions were primarily posed to the student survey participants in order to gain insight as to how students approached the completion of the quizzes and when they completed the quizzes throughout the semester.

Table 1. Survey questions that were administered to Chemistry 351 students. Survey questions 1 to 7 asked questions regarding quiz utility (not shaded), whereas questions 8 to 17 asked students about their opinion of the quiz format (lightly shaded). Question 18 investigated when the students completed the quizzes throughout the semester (darkly shaded).

Question Number	Survey Question
1	The quizzes increased my confidence within the laboratory.
2	The quizzes have helped me understand the theoretical and procedural content of this laboratory course.
3	The quizzes assisted my comprehension of course content.
4	I felt more prepared for the Chemistry 351 laboratory than the Chemistry 201/203 laboratory.
5	I feel that I am more knowledgeable regarding the Chemistry 351 laboratory content than the Chemistry 201/203 laboratory content because of the quizzes.
6	Completing the quizzes and also writing the experimental procedures in my notebook was overwhelming.
7	Overall, the pre-laboratory quizzes enhanced my learning of the Chemistry 351 laboratory content.
8	I have spoken positively about these Moodle quizzes when talking with my other instructors, student-peers, friends, or family members. If you do not recall discussing the quizzes with anyone, please skip this question.
9	The difficulty of the quizzes was appropriate.
10	Each quiz question contained the necessary information in order to answer the question.
11	The content of the feedback was adequate.
12	Overall, the feedback helped me arrive at the correct answer.
13	Having an additional attempt at each question was helpful to my learning.
14	Quiz questions focused on too many theoretical aspects of each experiment and should have focused more on procedural content.
15	The quizzes took a long time to complete.

16	Having no time limit on the quizzes was helpful to my learning (an example of a time limit would be if the quiz must be completed within one hour of starting it).
17	Please indicate the difficulty of the quizzes.
18	On average, throughout the semester, when did you complete the quizzes?

The survey was 26 questions long. Questions 1 to 16 were formatted according to the Likert scale. Question 17 had students rate the overall quiz difficulty on a scale from 1 to 5. Questions 18 and 19 asked the students when they completed the quiz throughout the semester, and if two attempts at a question were sufficient or if the number of attempts should increase or decrease. Finally, survey questions 20 to 23 asked students if they completed the surveys using course source materials (e.g. experimental techniques and experimental procedures) and if their approach to completing the quiz using the source materials changed throughout the semester. Questions 24 to 26 asked the students which aspects of the quizzes were the most helpful for their learning; whether they had a preference for writing the experimental procedure into their notebooks or if they preferred to only complete the Moodle quiz, and if there were any aspects of the quizzes that they wanted to see changed or improved. Also, throughout the survey, students were encouraged to leave comments in comment boxes, if they felt that a particular survey question using the Likert scale was insufficient for clearly articulating their thoughts. Sex and age demographic information was also collected in two categories: less than or equal to 20 years old or greater than or equal to 21 years old. These two age brackets were chosen in order to separate students who recently graduated high school from the students who were taking Chemistry 351 after having at least a one year break after completing high school. The goal of separating the students into one of these two groups was to see if more mature students perceived the quizzes similarly to younger students, while maintaining student confidentiality. Due to the small number of students enrolled in Chemistry 351, only the two aforementioned age groups were created. The survey data were statistically analyzed using Statistical Package for Social Sciences (SPSS) software.

Results and Discussion

Quiz construction

Quizzes were generally constructed in accordance to the parameters mentioned in the methods. MCQs were used rather than short-answer question formats for a variety of reasons. When providing specific feedback for short-answer questions, the feedback may not guarantee the same degree of accuracy and relevance as pre-constructed feedback for MCQs, true or false, or matching questions. This would be due to the fact that the students' answers for short-answer questions may not be the exact answer entered in Moodle. In order to make the necessary feedback to guide students towards the correct answer, generalized feedback would have to be used instead, thereby decreasing the feedback's efficacy. Another reason that the

short answer question format was not used was due to the possible inconvenience of reviewing quizzes to look for answers that students had entered correctly, but Moodle did not accept. If short answer questions were to be implemented in the quizzes, any instance where a student encountered an error when Moodle did not accept their answer, the student would have to contact the instructor in order for the instructor to revise the answer and manually manipulate Moodle to accept the student's answer. For this reason, students may begin to feel frustrated with the short answer question format, as this may place additional strain and responsibility onto the student, which invalidates the objective of the online quizzes. Having an instructor reviewing students' short-answer questions would be quite time consuming, particularly when reviewing student answers for minute misspellings or differences in significant figures and rounding for numerical questions. This is further complicated by the fact that there was at least one numerical question per quiz for Chemistry 351. The short answer question format was, therefore, disregarded as a practical format to promote student learning.

The absence of the short answer question format meant that quizzes were generally constructed using the MCQ format. The MCQs were primarily constructed in the traditional one-correct answer format, but were also formatted into matching, true or false, and multiple answer formats. In order to increase question variety, the MCQ format was also adapted for fill-in-the-blank questions. For these questions, students would be provided with background information and would have to read the content of the experimental introduction or procedure in order to answer the question correctly. As shown in Figure 1, the descriptive text used throughout the question was used to provide a brief summation of a particular procedure in an experiment. The background information in the first three sentences of Figure 1, was provided to help students to better understand a particular aspect of an experimental procedure that may not be easily understood. As such, this question format was used in order to help students pay particular attention to important concepts and parts of each experiment's procedure.
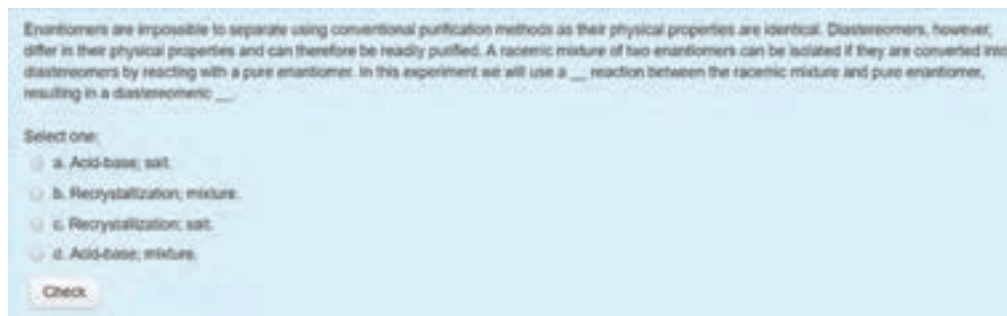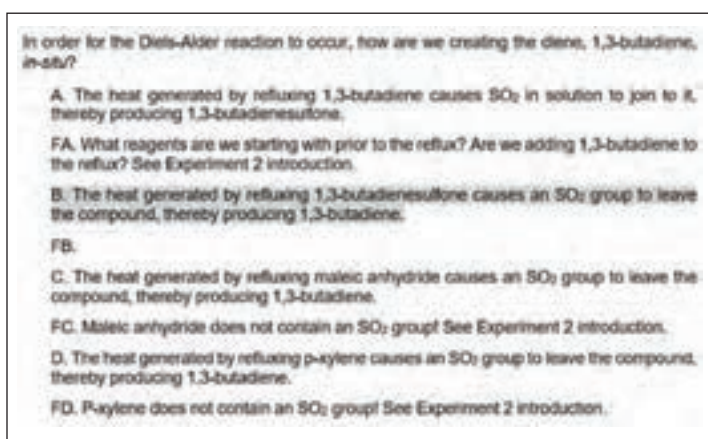

Figure 1. Question 1 from Chemistry 351 Experiment 7 (Week 1). A fill-in-the-blank question adapted to the multiple choice question format.

The MCQ format also enabled using question-specific feedback for each answer of a given quiz question. As discussed later in this paper, implementing specific feedback for an incorrect multiple choice answer was an effective tool to help students learn course content. As shown in Figure 2, feedback for each of the three incorrect answers was constructed to

help guide students to the correct answer. For this particular quiz question no feedback was created for the correct answer, although sometimes feedback was added to the correct answer in order to provide the students with supplementary information. The feedback for each incorrect answer not only provided text to help the student realize why the answer they selected was wrong, but also provided instruction as to where to look in the laboratory manual so that the student may be guided to the correct answer rather than becoming frustrated with the quiz question. Answer-specific feedback often provided an explanation as to why the incorrect answer that the student selected was wrong or posed a question to help the student think about why the answer they had selected may be wrong. However, some questions that were more theoretically based did not include the feedback to guide students to a particular region of the experimental write-up, but were carefully worded in order to help students arrive at the correct answer on their own.

The effectiveness of the feedback was fully realized, upon recognizing that the incorrect answers in a quiz question should be based on common student misconceptions. In reference to the image below (Figure 2) the molecule 1,3-butadiene was generated in a round-bottom flask after dissolving 1,3-butadienesulfone in p-xylene and refluxing for 30 minutes. This question was created in order for students to realize that the necessary reagent, 1,3-butadiene, was not directly added into the flask. Rather, the 1,3-butadiene was created during the reflux of 1,3-butadienesulfone, as an SO2 group left the molecule and thereby created 1,3-butadiene. As such, the incorrect answers were created to provide a context where students had to read the experimental procedure in order to understand how the 1,3-butadiene was generated in the flask. If a student had read the experimental procedure and understood its content, they would realize that the answer A was incorrect because the SO2 group is leaving 1,3-butadeienesulfone rather than being added to it, and that the starting reagent was not 1,3-butadiene. The feedback for answer A, therefore, was assembled to rectify the aforementioned problems. The feedback guides the student to review what reagents are added to the flask prior to reflux and that 1,3-butadiene is not one of the reagents added into the flask. As mentioned previously, the last piece of the feedback for answer A suggests that the student ought to seek more information in the Experiment 2 introduction.

Figure 2. Question 3 from Chemistry 353 Experiment 2, with feedback for each answer. Each answer is denoted by a capital letter. The feedback for each answer is indicated by the letter F. The highlighted text indicates the correct answer for this question (B).

The quiz questions were also formatted in a sequential order. This means that each question was placed onto its own webpage, which prevented students from looking at the whole quiz prior to completing the quiz. The sequential question format also prevented students from skipping a question or going back to complete a question that was skipped. Although the sequential question format may appear to be disadvantageous for students, the objective behind using this type of question format was to effectively use two-step questions. For the purposes of this paper, a two-step question will be defined as the sequential order of two quiz questions, where the second question applies the logic that is established from the previous question. To clarify, the first step of a two-step question introduces a new concept to the student and then the second step provides the student with a context to apply the newly learned concept.

The quiz questions shown in Figure 3 depict an example of a two-step question. In Question 1, the students are asked what the potential outcomes

Figure 3. Questions 7 and 8 from Chemistry 353 Experiment 6. These multiple choice quiz questions exemplified the two-step question format. The shaded answers (D and B) indicate the correct answers.

of adding 10% NaHCO3 (a weak base) to a test tube of compounds that were previously acidified using H2SO4. Question 1 is a theoretically based question, that does not have its answer explicitly stated in the experimental procedure. Based on their knowledge of how bases operate, the acidic functional groups of the organic compounds that are present in the acidified solution, in combination with the feedback provided for each incorrect answer, the students should realize that the NaHCO3 will deprotonate any acidic functional groups and neutralize strong acids present in the test tubes. The underlying logic established by Question 1 serves as the premise for completing Question 2. In Question 2, the students are asked which of the following test tubes best describes the species upon adding NaHCO3. Again, due to the students' knowledge of what organic compounds are present in solution, they should realize that based on the information from Question 1, the NaHCO3 will act as a base and deprotonate any acidic species. The deprotonation of the acidic functional groups present on the organic compounds in a test tube will cause the separation of charged ions and non-polar organic compounds from one another. Question 2 then asks the students to choose the image of the test tube that best describes which layer they would expect to find the non-polar and charged species. Based on the logical premise established in Question 1, students were then able to answer Question 2, which is more complicated and demands the unification of many concepts to answer correctly. Due to the structure of these two-step questions, if the student was capable of skipping questions, then the answer to the first part of the question may be revealed in the second part of the question. Although there were a few instances of students who unintentionally skipped questions and had to have their quizzes reset, the sequential question format overall seemed to be accepted by students and did not interfere with their learning.

As seen previously, some quiz questions also used illustrations to help students learn. These image-based questions were generally used for one of two purposes: 1) to help students visually understand a laboratory technique or procedure (Figure 4); 2) to use visual representations of molecules that were in a solution or glass container (Figure 3). Although no students specifically indicated that these images helped them learn, when constructing these quizzes, it was more pragmatic to use images rather than provide a description of what particular laboratory apparatuses or solutions will look like. The intended benefit of using images in the Moodle quizzes was to help students feel more comfortable and confident when encountering new techniques, instruments, or solutions for the first time in the laboratory.

For the following TLC plate, calculate the R, value for the unknown compound. Assume that the compound finished moving at the point denoted with the red "x" and that it started at the green "x" position. The line near the top of the TLC plate indicates the solvent front. Use the ruler in the picture to make any measurements.

Select one:
- a. 0.63
- b. 0.64
- c. 0.62
- d. 1.59

Check

R, = Distance travelled (mm) / Solvent front distance (mm)

Figure 4. Question 1 from Chemistry 351 Experiment 5. This question used an image of a TLC plate to help students perform an Rf calculation.

Quiz utility survey results

Generally, students found the quizzes to be a helpful tool to promote their learning (Table 1; Table 2). Surveyed students were observed to feel increased confidence within the laboratory (Q1; $t24 = 7.185$, $p < 0.001$), have an increased understanding of procedural and theoretical content (Q2; $t24 = 12.348$, $p < 0.001$) and noted that they had increased comprehension of laboratory course content (Q3; $t24 = 7.464$, $p < 0.001$). These survey results indicate that the quizzes asked the appropriate questions to help students learn and that completing the quizzes assisted student learning. Students also reported that they felt more prepared in Chemistry 351 than in Chemistry 201/203, as when they completed Chemistry 201/203 they were not required to complete any pre-laboratory Moodle quizzes (Q4; $t23 = 7.882$, $p < 0.001$). This indicates that the quizzes not only helped students learn laboratory content by completing the quizzes, but that students felt more competent while completing the laboratory experiment. Surveyed students also reported that they felt more knowledgeable of Chemistry 351 laboratory content than Chemistry 201/203 laboratory content because of the online quizzes (Q5; $t23 = 4.527$, $p < 0.001$). Based on the survey results, students felt that the online pre-laboratory quizzes aided their learning of Chemistry 351 laboratory content (Q7; $t24 = 6.820$, $p < 0.001$). When the surveyed students were asked if they felt overwhelmed by completing the Moodle quizzes and also writing the experimental procedure in their laboratory notebooks prior to attending each week's experiment, the survey answers were insignificantly different from the comparison value (Q6; $t23 = -0.678$, $p > 0.05$). This test result indicates that the majority of students answered "neutral" for this survey question, which should be interpreted as a positive test result. The fact

that students did not feel overwhelmed by completing the Moodle quizzes and writing the experimental procedure into their notebooks prior to each experiment, validates the success of the quizzes, as they enhance student learning without causing the students to feel stressed.

It appears as if the Moodle quizzes achieved their intended goal of promoting student learning of Chemistry 351 laboratory content. It was interesting to note that, overall, students felt as if they understood Chemistry 351 laboratory content better than Chemistry 201 content due to the Moodle quizzes. This group of Chemistry 351 students were not required to complete Moodle quizzes when they completed Chemistry 201. Although it was anticipated that the Moodle quizzes would help students learn laboratory content more effectively, it was unexpected to see students express positive feedback towards the quizzes implemented in Chemistry 351 because of the students not having to complete Moodle quizzes in Chemistry 201. Generally, Chemistry 351 is perceived to be a more demanding and stressful course than Chemistry 201. The students' expression of feeling more prepared and knowledgeable for the Chemistry 351 laboratory compared to the Chemistry 201 laboratory, despite having to perform more work each week, shows that the quizzes were helpful to the students and were working as intended.

Table 2. One sample t-test results (two-tailed) for survey questions 1 to 18. The significance level for each of these statistical analyses was 0.05. For survey questions based on the Likert scale, a numerical value of 1 represents the option "strongly disagree," whereas the value of 5 represents the option "strongly agree." The comparison value was set to a value of 3, which indicates that the students neither agreed nor disagreed with the survey question.

Question Number	N	Mean	Standard Deviation	t Value	Degrees of Freedom	Significance ($p < 0.05$)
1	25	4.28	0.891	7.185	24	< 0.001
2	25	4.44	0.583	12.348	24	< 0.001
3	25	4.24	0.831	7.464	24	< 0.001
4	24	4.42	0.881	7.882	23	< 0.001
5	24	3.88	0.947	4.527	23	< 0.001
6	24	2.83	1.204	-0.678	23	0.504
7	25	4.16	0.85	6.82	24	< 0.001
8	17	3.29	0.92	1.319	16	0.206
9	25	4.36	0.569	11.959	24	< 0.001
10	25	4.24	0.831	7.464	24	< 0.001
11	25	4.44	0.768	9.374	24	< 0.001
12	25	4.4	0.707	9.899	24	< 0.001

13	25	4.84	0.624	14.732	24	< 0.001
14	24	2.75	0.897	-1.366	23	0.185
15	25	2.6	1.08	-1.852	24	0.076
16	25	4.52	0.77	9.867	24	< 0.001
17	25	3.24	0.663	1.809	24	0.083
18	25	2.2	0.913	-4.385	24	< 0.001

Quiz format

The survey results indicated that students were satisfied with the quiz format (Table 1; Table 2). Overall, the students felt as if the quiz difficulty was appropriate (Q9; $t24 = 11.959$, $p < 0.001$). Of the 25 students surveyed, ten students stated that they strongly agreed that the difficulty of the quizzes was appropriate while 14 students somewhat agreed that the quizzes were of the appropriate difficulty. Only one student felt neutral towards the appropriateness of the quiz difficulty. The students' approval of the quiz difficulty was surprising. Although some questions asked simple procedural or technique related questions, the answers to some questions were not explicitly stated in the laboratory manual. Some quiz questions required students to combine several concepts together in order to come to the correct answer (e.g. the two-step question in Figure 3) When creating the Moodle quizzes, it was rather difficult to pose a quiz question in a manner that encouraged students to come to an answer on their own without referring to the laboratory manual, while preventing students from feeling burdened or anxious by presenting them with a more challenging question. Despite these more demanding questions, students felt that there was sufficient information in each quiz question for them to answer the question (Q10; $t24 = 7.464$, $p < 0.001$). This result indicates that although the answers to some questions may not be explicitly stated in the laboratory manual, if proper care is taken to help students bridge logical gaps, they may approve of the question.

The students did not feel as if there was a bias towards the quiz questions asking more theoretical content rather than asking procedural content (Q14; $t23 = -1.366$, $p > 0.05$). The procedural questions focused on important aspects of the experimental procedure that were essential to the success of the experiment. Although these questions were important in highlighting problematic procedural steps in each experiment, the answers for these questions were primarily found in the experimental procedure itself (e.g., the question used in Figure 1). Generally, the questions that discussed theoretical content were of a higher difficulty, as they were constructed to help students connect the information mentioned in the experimental introduction and procedure to the action the students would be performing in the laboratory. As such, the theoretical based questions were not guaranteed to have the answer explicitly stated in the experimental procedure or introduction. The survey data indicates that not only did the students find the difficulty of the quiz questions to be adequate, but that they did not think that there were too many theoretical based questions relative to the number of procedural questions. When creating this question for the survey, it was anticipated that students would express a preference for the procedural-based questions rather than the questions that focused

on theoretical content, as the procedural questions would be easier for the students to answer. Again, it appears that even though some questions do not explicitly state the answers in the laboratory manual, if students are provided with the required information, the students may bridge logical gaps (e.g., Figure 3), and approve of the question.

In regards to question feedback, the students felt that the content of the feedback was adequate (Q11; t24 = 9.374, p < 0.001). Overall, the students reported that the feedback helped them work towards answering the question correctly, after answering the question incorrectly on the first attempt (Q12; t24 = 9.899, p < 0.001). Students agreed that the extra attempt at each quiz question helped them learn laboratory content (Q13; t24 = 14.732, p < 0.001). It appears that the diligent effort invested into writing the pre-determined feedback for an incorrect answer yielded a successful result that assisted students to learn laboratory course content. As mentioned previously, the creation of specific feedback relative to each incorrect answer was a determining factor that led to the use of MCQs rather than short-answer questions. Since the feedback appeared to be an effective learning tool for students, it appears that the MCQ format may have helped students learn the laboratory course content more easily.

The surveyed students were not in agreement or disagreement with the survey question "the quizzes took a long time to complete" (Q15; t24 = -1.852, p > 0.05). Five students strongly disagreed with this survey question and another six students chose the somewhat disagree option. Of the remaining 14 students, eight students selected neutral whereas the other six students selected the somewhat agree option. No students chose the option strongly agree. Despite a seemingly high degree of uncertainty among students' replies to this survey question, this survey question provides valuable insight into the students' perception of how long the quizzes took to complete. As such, this survey question indicates that the majority of students did not feel as if the quizzes took them a long time to complete, as only six of the 25 students enrolled in Chemistry 351 somewhat agreed that the quizzes took too long to complete. This is a desirable result, as the quizzes were created to help students learn Chemistry 351 laboratory content and to not burden the students with work. Perhaps if more students were enrolled in Chemistry 351, it is possible that this survey answer could be significant as the p-value was near significance.

There was no significant difference in students' survey answers regarding the perception of the overall quiz difficulty (Q17; t24 = 1.809, p > 0.05). Three students stated that the quizzes were somewhat easy, 13 students rated the quizzes as being moderate in difficulty, and nine students said that the quizzes were somewhat difficult. None of the students rated the quizzes as being very easy or very difficult. Although there was no significant difference between the surveyed student answers relative to quiz difficulty, this does not necessarily indicate that the quizzes were too difficult. Rather, this test result likely indicates that students found the quizzes to be challenging, as the answer to some quiz questions was not explicitly stated in the laboratory manual, thereby encouraging the students to learn on their own. It appears as if the current quiz questions encourage students to think critically and provide them with enough information to help them arrive at the correct answer. Also, since the majority of students did not claim that the quiz took a long time to complete, it appears as if the quiz questions

are thought provoking, but not difficult to the point where students become discouraged or require a long amount of time to complete each question.

Lastly, students generally thought that the unlimited time limit on the quizzes was helpful to their learning (Q16; $t24 = 9.867$, $p < 0.001$). This result is not very surprising, as it has been observed in the literature that students feel more stressed and anxious when completing an online quiz within a finite amount of time [10].

Ultimately, it appears as if the quiz format was constructed in a manner that promoted student learning. Despite the challenge of creating thought-provoking questions that did not have explicit answers in the laboratory manual, it appears as if these types of questions were still accepted by the students as they helped the students learn. The other essential aspect of the quiz format that helped students learn was the answer-specific feedback. As observed in the survey results, the majority of students approved of the feedback and noted that it helped them arrive at the correct answer.

Quiz completion

Students generally completed the quiz one day before the quiz was due (Q18; $t24 = -4.382$, $p < 0.001$). Six students reported that they usually completed the quiz on the same day as the experiment throughout the semester. Ten students stated that they completed the quiz one day before the experiment. Seven students reported that they completed the quiz 2 to 3 days before the experiment. Lastly, two students reported that they completed the quiz 4 to 6 days before the experiment throughout the semester. It is worth noting that these results may not accurately reflect the work ethic of the students who were surveyed. This is because Chemistry 351 laboratories were held on the Monday of every week throughout the Fall 2018 semester. As such, the completion of the online quiz one or two days before the quiz was due meant that the students were completing the quizzes on the weekend. Given the heavy workload of the average undergraduate science student, this is not a surprising result.

Correlation tests

A series of Pearson correlation coefficient tests were performed to investigate if any student survey responses predicted other survey answers. There was an insignificant weak positive correlation between students feeling overwhelmed by completing the Moodle quizzes and also writing the experimental procedure into their notebooks before each experiment and when the students completed the online quizzes (Q6/Q18, $r = 0.341$, $n = 24$, $p = 0.103$). It was predicted that students who chose to complete the Moodle quiz and also write the experimental procedure into their notebooks closer towards the quizzes' submission date, would feel more overwhelmed than students who completed these tasks farther from the quizzes' end date. Although the correlation between students feeling overwhelmed and when the students completed the quizzes was insignificant, it is possible that with a larger sample size, this test result may become significant. Although the analyses of future Chemistry 351 classes are outside the scope of this paper, it would be interesting to see if a significant result would be attained if the Chemistry 351 laboratories were not held on a Monday. Based on

the current test results, however, it would worth informing future Chemistry 351 students that completing the Moodle quiz closer to the date of the experiment may result in increased anxiety, which may negatively affect their learning [5].

A significant positive correlation between students feeling overwhelmed by completing the Moodle quizzes and also writing the experimental procedure into their notebooks before each experiment and quiz length being too long (Q6/15, r = 0.478, n = 24, p = 0.018) was observed. The students who felt overwhelmed by having to complete the Moodle quiz and write a condensed experimental procedure into their notebooks prior to attending the laboratory experiment also rated the quiz length as being too long. The students who were not overwhelmed by the aforementioned expectations of the Chemistry 351 laboratory did not think that the quizzes were long. This result is rather interesting, as it provides insight into the students' perception of the quizzes despite all of the students completing the same quizzes throughout the semester. For future offerings of the Chemistry 351 laboratory course, one should be mindful of the quiz length relative to how students perceive the course's workload. If quizzes are further modified to the point where additional questions are added, the students may cease to see the quizzes as being helpful and may feel overwhelmed by them instead. Currently, however, based on the positive feedback regarding the Moodle quizzes obtained by this survey, the quizzes appear to be working as intended.

An insignificant weak negative correlation between the students' approval of quiz difficulty and the difficulty of the quiz questions (Q9/Q17, r = -0.349, n = 25, p = 0.087) was observed. Students who strongly agreed that the quiz difficulty was appropriate were observed to rate the difficulty of the quiz as being somewhat easy or moderate in difficulty, whereas students who somewhat agreed that the quizzes were of the appropriate difficulty were observed to rate the quizzes as being somewhat difficult. This correlation was somewhat predictable. It is not surprising that the students who found the quizzes to be low or moderate in difficulty would approve the quizzes as being the appropriate difficulty, however the other students who found the quizzes to be more difficult would be expected to rate quiz difficulty as being less appropriate. It seems as if students are indicating that the easier the quiz difficulty, the more the students accept the quiz design. Again, this result is rather predictable in consideration of the busy and challenging courses that are integrated into a Biology undergraduate program. Although this finding is insignificant, it is possible that with a larger sample size, this correlation would be statistically significant.

The remaining three correlation tests that were carried out were observed to be insignificant. There was no correlation between students feeling overwhelmed by completing the Moodle quizzes and writing the experimental procedure into their notebooks before each experiment and the difficulty of the quizzes (Q6/Q17, r = 0.241, n = 24, p = 0.256). It appears as though the difficulty of the quizzes does not correlate to students feeling overwhelmed when completing a quiz and also writing the experimental procedure into their notebooks each week, but the length of the quizzes may correlate to students feeling overwhelmed. It was hypothesized that students may perceive the quizzes as taking a long time to complete if the students completed the quiz closer to the date and time to when the quiz closed. This hypothesis was rejected, as there was no significant correlation between the quiz length being

too long and when the students completed the quiz (Q15/Q18, r = 0.254, n = 24, p = 0.221). Lastly, there was no correlation between the students' perception of quiz difficulty and when the students completed the quiz (Q17/Q18, r = 0.055, n = 25, p = 0.794).

Demographic analyses

Unfortunately, no consistent or statistically viable information could be derived from comparing the survey results of males to females or by comparing students less than or equal to 20 years of age to students who were greater than or equal to 21 years old. Eighteen students were less than or equal to 20 years old, whereas the number of students 21 or older only totaled 7. As such, a larger and more equally distributed proportion of students is merited for proper statistical analysis. The comparison between surveyed male and female students was more statistically sound, as there were females 15 and 10 males. No significant two sample t-test results were observed when comparing males to females among survey questions 1, 2, 3, 4, 5, 6, 7, 9, 15, 17, and 18.

Student comments

Students generally provided positive feedback for the Moodle quizzes. In reply to survey question 24, which asked students: What aspects of the quizzes did you find to be the most helpful to your learning, 22 students stated that theoretical and procedural type questions in combination with having a second attempt at each quiz question with constructive feedback helped them learn. One student stated that having a second attempt at each quiz question helped them to retain the information from each question. Another student claimed that the specific quiz questions that asked students which experimental apparatuses were assembled correctly helped them when assembling the same apparatuses in the laboratory. Of the 25 students sampled, 22 students answered question 24, two students left the survey question blank, and one student expressed their disproval of the quizzes and claimed that the quizzes created additional stress without any learning benefit. Unfortunately, this single student did not provide any specific feedback as to why the quizzes were not helpful to their learning. It appears, however, in light of the other 22 positive comments, that the Moodle quizzes appear to help students learn Chemistry 351 content.

Question 25 on the survey asked students whether they found writing both the experimental procedure into their notebooks and completing the weekly quizzes helped students learn, and if they preferred one over the other. Seventeen students thought that writing both the procedural steps into their notebooks and completing the online quizzes was helpful to their learning. Six students claimed that they would prefer to only complete the Moodle quizzes rather than writing the experimental procedure into their notebooks prior to attending each experiment. One student preferred only writing the experimental procedure into their notebook rather than completing the Moodle quizzes. One student did not answer this question. Although the information obtained from this survey question is rather limited in its application, it did provide insight into students' approval of the Moodle quizzes. Undoubtedly, having students complete the Moodle quizzes and the task of writing

the experimental procedure into their notebooks are both beneficial for their learning and for completing each experiment with confidence. Replacing the act of having students write the experimental procedure into their notebooks with only having students complete the Moodle quizzes each week would not help students learn Chemistry 351 laboratory content as well as having the students complete both the notebook task and the Moodle quizzes. As mentioned at the beginning of this document, prior to implementing Moodle quizzes, the students were observed to lack an understanding of why they are performing certain laboratory techniques, how to use relevant calculations, and why they are using particular reagents during an experiment. It is extremely likely that making students only complete the Moodle quizzes will cause the students to miss some of the minor details hidden in the experimental procedure that may adversely affect their understanding of the experiment and how to complete the experiment competently. Students would be more likely to become focused on completing the quizzes as fast as possible, rather than reading the content of the quizzes under careful consideration, which may hinder their understanding of Chemistry 351 content.

Question 26 asked students if there were any aspects of the quizzes that should be changed. Five students suggested that various aspects of the Moodle quiz format should change, two students criticized the fit and finish of the Chemistry 351 quizzes, and eight students thought that the quizzes were acceptable in their current state. Ten students did not provide a comment for this question. One of the two students that criticized the fit and finish of the Moodle quizzes commented that one mathematical-based question did not include the appropriate formula to answer the question properly which added to their anxiety. This student was indeed correct and the question has been amended. The other student stated that the quizzes should be better edited prior to students' completing the quizzes as some typos were apparent in some of the quizzes. The quizzes have been edited a second time, so typos should be more infrequent or absent altogether.

In regards to the five students that made suggestions to change the quiz format, these responses consisted of: including the relevant formula in mathematical-type quiz questions, increasing the number of attempts for quiz questions, being able to skip and go back to previous questions during the quiz, decreasing the overall number of questions per quiz to 5 or 6, and indicating the number of possible correct answers in multiple answer MCQs. The feedback provided by these students was handled as outlined below.

All mathematical questions for Chemistry 351 have been edited to now include mathematical formulas in the questions, except for limiting reagent calculations and a centimeter to decimeter conversion calculation. The limiting reagent questions do not have a formula included in the quiz question as the students have access to a Moodle document that provides step-by-step instructions to complete a limiting reagent calculation and the concept is prerequisite material.

The suggestion to add another attempt to each quiz question was ultimately disregarded due to two reasons: 1) students could guess MCQs for the Moodle quiz thereby invalidating the objective of the Moodle quizzes, which is to promote student learning; 2) of the 25 students that answered question 19 of the survey, 23 students thought that the quizzes should remain with two attempts for each question, one student thought that the number of quiz attempts

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should increase by one, and another student thought that the number of attempts should decrease by one attempt. As such, the number of attempts for each quiz question will remain at two attempts as the majority of students found it to be helpful.

The sequential question format must be retained in order to prevent students from skipping a quiz question and then answering another question that contains the correct answer for the preceding question. The primary benefit of using sequential questions for the Moodle quizzes is to promote step-wise learning of laboratory content. The quiz design may be changed to accommodate a free-navigation of the quiz questions, but may come at the expense of student learning. Going forward, the laboratory manual will be edited to clearly indicate to students that only forward navigation of the quizzes is permitted (until the quiz has been completed).

The suggestion to change each quiz to a maximum of 5 to 6 questions is ambitious and difficult to implement. There is a positive dynamic between the number of questions per quiz and the amount of content conveyed in each quiz. As such, if the number of quiz questions were to decrease, then the content of the quiz would also decrease. Instead of adhering to this student's suggestion, a better way to navigate this issue is to have a range of difficulties present in each quiz (which is what is currently used in the Chemistry 351/353 quizzes). That way, some questions still serve a purpose of conveying important laboratory content and can be easy to answer, whereas other questions can be of a higher difficulty but occur less frequently throughout each quiz. The expectation to standardize each quiz to a maximum of 5 or 6 questions does not consider the aspects or concepts of each experiment that a student may struggle with as they are performing the experiment. Some experiments are more complex than others and may require additional quiz questions to help students learn more complex techniques. Based on this logic, this student's suggestion to reduce the number of questions per quiz has been noted, but temporarily ignored.

The suggestion to add a statement to clarify how many correct answers are in an MCQ with multiple answers was considered and has now been implemented into the Chemistry 351/353 quizzes. Now, if a question includes the phrase "Select all of the following correct answers," a numerical value has been added to indicate how many correct answers there are. Currently, for the Chemistry 351/353 quizzes, there are less than five quiz questions that do not indicate how many correct answers are expected for answering a multiple answer quiz question correctly. These particular questions do not indicate how many correct answers there are, as the question itself refers students to the laboratory manual. If the student refers to the particular section of the laboratory manual that the question directs them to, the laboratory manual will indicate to the student how many correct answers are expected.

Although the student surveys provided insight as to how the students perceived the effectiveness of the quizzes, it remains undetermined whether the quizzes affected the students' grades. Due to the small class sizes at StMU, it is difficult to state with any degree of certainty if the Moodle quizzes increased student grades or if a sample bias had occurred. As an example, it is possible that around half of a Chemistry 351 laboratory class (i.e., approximately 13 students) in one particular year may have a greater aptitude for organic chemistry than another

13 students enrolled in Chemistry 351 in a different year. Thus, the quizzes may help the students with a greater aptitude more than the second group of students, thereby creating a disparity between the average grades of both cohorts. It would falsely appear as if the grade of the latter group of students did not benefit from the quizzes. This bias would not exist if there were more students enrolled in the Chemistry 351 laboratory at StMU, as each student's grade would be individually worth less, and so the effect of the quizzes on students' grades would be more apparent. Despite this challenge in accurately determining whether the Moodle quizzes affected students' grades, the survey data indicates that students believe that the quizzes are helping them in the laboratory.

Summary

Moodle quizzes were constructed for the Chemistry 351/353 laboratory courses as a supplementary learning methodology to help students learn course content. Prior to the creation of the Moodle quizzes, students were required to write an experimental procedure into their notebooks prior to attending the laboratory experiment. However, with this instructional method, there appeared to be a lack of student comprehension as to why they are performing certain laboratory techniques, how to perform course-relevant calculations, and why they are using particular reagents during each step of an experiment. In order to rectify these problems, the Moodle quizzes were assembled with the intent of understanding what factors influenced student learning and adapting successful quiz formats to the Moodle quizzes by examining various journal articles. Once the quizzes were created, the quizzes were implemented in the 2018 Fall Chemistry 351 course. After the students had completed all of the quizzes, they were asked to complete a survey to evaluate their approval of the Moodle quizzes. Based on the survey results, it appears as if the students accepted the quiz format and thought it helped them learn course content.

Ultimately, the quizzes were constructed with two goals in mind: to create an environment that promotes student learning and to strive to meet the approval of students. Since stress has been observed to negatively affect student learning, it was essential that the quizzes were formatted in such a manner so that students could learn Chemistry 351 laboratory material without feeling stressed. Similarly, it was important that the students approved of the quizzes, as students are unlikely to learn from a teaching methodology if they do not perceive that methodology as being helpful. In order to complete these two goals, factors relative to quiz creation such as: format of questions, question feedback, quiz duration, quiz access time, number of questions, question feedback, and number of quiz attempts were considered. Quizzes were assembled using MCQs, including MCQs with multiple answers, matching questions, and true and false. Each answer for a particular quiz question had its own unique feedback that was constructed to help students who selected an incorrect answer, to select the correct answer when they completed the second attempt of the question. The quizzes were not formatted to be completed within a finite amount of time, but had to be completed before the quiz closed, one hour prior to the experiment. Students generally had a week to complete the quiz before it closed. The number of questions for each quiz ranged from 4 to 10 questions, but typically averaged 8 questions. The quizzes were constructed with the aim of creating specific questions to help students learn Chemistry 351 course content.

Based on the statistical analysis of Chemistry 351 survey answers and the comments provided by the students on the surveys, it appears that the Chemistry 351 students believed that the quizzes were an effective learning tool. Again, based on the positive comments and feedback obtained by the survey, it appears that the quizzes met the approval of the students. Similar to findings in other academic journal articles, surveying the students who completed the newly developed quizzes was extremely helpful in determining the students' perception of the Moodle quizzes in relation to their learning. If the students were not surveyed using specific questions to address specific concerns regarding the quizzes, the success of the quizzes would be unknown. Furthermore, the surveys helped students communicate problematic aspects of the quizzes that would have otherwise not been considered. A few students pointed out that some questions were missing the correct formula to complete the question and that an indicator of how many correct answers are present in a multiple answer MCQ should be included in the question's descriptive text. Reviewing these students' comments was helpful in improving the quizzes for future Chemistry 351 laboratory classes.

The quizzes met the approval of the students and ultimately did not cause students to feel overwhelmed by writing the experimental procedure into their notebooks and completing the quizzes. Based on the data obtained from the surveyed students, it appears as if the students' approval of the Moodle quizzes may be influenced by particular aspects of the quiz format. The positive correlation between students feeling overwhelmed by writing the experimental procedure into their notebooks and also completing the Moodle quizzes, may indicate a future problem for the Moodle quizzes. It seems as if the students that felt overwhelmed by having to complete the Moodle quizzes and also writing the experimental procedure into their notebooks also perceived that the quizzes were too long. So, if additional quiz questions are added to the Moodle quizzes, it is possible that more students may feel more overwhelmed by completing these tasks, which may decrease the effectiveness of the quizzes and undermine their objective to enhance student learning.

In conclusion, it appears that the students believed that the Moodle quizzes constructed for Chemistry 351 were helpful to their learning. This project has accomplished its intended goal of providing students with supplementary course material to help them better understand the laboratory procedures, techniques, and concepts used in Chemistry 351. Even though the fundamental goal of this project was to create Moodle quizzes to help students better understand Chemistry 351 laboratory content, it is important to acknowledge the significance of the student surveys. Without implementing these surveys, it would have been extremely difficult to accurately evaluate whether students found the quizzes to be helpful or to be a burden. Similarly, in the hypothetical event that an aspect of the quiz format was detrimental in facilitating the students to learn the course material, the students could have used the survey to communicate their concerns with the quiz format. In future iterations of the Chemistry 351/353 laboratory courses, perhaps it may be of interest to use student surveys at the end of each semester in order to evaluate the students' perception of the course. Although a course evaluation survey is given to students to complete at the end of each semester at StMU, this survey does not ask specific questions that address the Moodle quizzes, and therefore, may reduce the feedback provided by the survey. Again, although an immense amount of effort was invested in order to create quizzes for Chemistry 351, the quizzes may have been constructed

in vain, had the students disapproved of the quiz format or if the quizzes created too much additional stress without any additional benefit. The only way to accurately determine whether the students' approved or declined the quizzes was through the use of a carefully designed survey.

Acknowledgements

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On Tolerance and Intolerance

Samantha Thompson

⁖ **With increasing immigration rates** Canada's mosaic continues to grow. Diversity in ideology, religion, race, and culture populate our communities. While pluralism is part of Canada's mosaic identity, conflict between opposing worldviews is still a reality that seeks to either divide or assimilate Canadians. In 1995, The United Nations Educational, Scientific and Cultural Organization, (UNESCO), released a document discussing the need for more tolerance that state, "we must act now that to ensure the viability of mixed societies, because every society in the world today is diverse in its own way, and not one of them is beyond the danger posed by the infernal cycle of intolerance and violence" (p.1). In this paper, I will explore the role of education in the effort to inspire pluralism and a tolerance of difference while also thinking of situations when intolerance is acceptable. I will then reflect on how my own spirituality will guide me when dealing with this social issue that is inseparable from education.

In my practicum school, 67% of the population are ESL learners. During my second week we had a new student arrive from India whose accent was strong. One day I noticed another student mimicking the new student's accent to a friend. While the mimicking might have been done playfully without malicious intent, the impact of such cultural teasing can be extremely harmful and isolating. This situation is an example of subtle intolerance known as microaggressions. To the aggressor, microaggressions can seem inconsequential, too small to cause any real harm and definitely not racist. To the victim, microaggressions build up over time and begin to scratch away at a person's dignity. Microaggressions go unmarked by the majority culture who have not experienced racism making the common statement "racism doesn't happen in Canada" seem true. Although the example I gave involved two children, it goes to show that intolerance can begin at a young age. Children are easily influenced by their social environment and if their social environment is intolerant of difference, the child may become intolerant to difference. At school, educators are well positioned to create a social environment that teaches tolerance and pluralism, "Individuals must become tolerance teachers within their own families and communities. We must get to know our neighbors and the cultures and the religions that surround us in order to achieve an appreciation for diversity. Education for tolerance is the best investment we can make in our own future security" (UNESCO, 1995, p.1). When students enter a school, they should also be entering a community that celebrates each and every child. Such an environment has the power to foster a similar wonder and appreciation for diversity in the impressionable young minds of its students.

While discussing the growing need for tolerance in diverse societies, it is equally important to consider if and when intolerance may be acceptable. For teachers, this question is especially critical when confronted with children who have been influenced by family, or by media, to buy into a falsehood such as the flat earth movement or anti-vaccination campaigns. Just the other day my mother, a teacher in a junior high school, had a student raise their hand to inform her that the moon landing was staged. The student had seen a documentary that argued that people have never been to the moon. Today children are vulnerable to misinformation that pollutes the internet. Movements, based on falsehoods, threaten logic, science, and refined processes of credibility, such as peer reviews and even science experiments. Teachers must address the issue of fake facts in their classrooms and have an attitude of intolerance to such movements. We must inspire curiosity and critical thinking in our students, while also maintaining a compassionate, caring composure when faced with resistance. In an article titled *In Praise of Intolerance*, Levinovitz (2017) says that "It's also essential to recognize that intolerance does not require incivility… there is no contradiction between tolerating fellow citizens (or students) while remaining intolerant of their beliefs." Teachers must remain intolerant to beliefs that threaten community, inspire violence or hatred, and reject science and logic, but must never be intolerant of their students.

As I consider these scenarios involving tolerance and intolerance, I am called to ask myself, how will my spirituality inform my judgment? The Catholic theme of social teaching *Life and Dignity of the Human Person*, has stayed with me as one of the pillars of my own spirituality; "In a world warped by materialism and declining respect for human life, the Catholic Church proclaims that human life is sacred and that the dignity of the human person is the foundation of a moral vision for society" (*United States Conference of Catholic Bishops*). With this social teaching in mind I will go into my teaching career determined to treat every student with dignity and respect. The golden rule of treating others how you wish to be treated fits perfectly into this social theme and will be helpful when walking children through conflict. These spiritual philosophies inspire me to maintain a community of dignity within my classroom where diversity is tolerated and celebrated. Furthermore, the philosophies ask me to meet intolerance with compassion and patience, speaking to the dignity of the student rather than reacting alone to their beliefs and actions. As a teacher I am a facilitator and guardian of growth. Above all, I must nurture my students with love and understanding exemplifying my expectations for their own conduct.

In conclusion, education can play a valuable role in the movement to inspire pluralism and tolerance of difference. Additionally, education must also remain intolerant of beliefs that jeopardize peace, public safety, and science while respecting the dignity of those who hold intolerant beliefs. I myself will maintain the belief that each and every student deserves to be treated with dignity and respect. In my classroom I will cultivate an environment of tolerance, compassion and respect for human life in all its forms. The 1995 UNESCO document on tolerance leaves us with the powerful message that "The wealth of human hope are within each child. Through lifelong *Education For All* we can forge new attitudes within each human being - young or old. What matters in the end is not the world we will leave to our children, but the children we will leave to the world" (UNESCO, 1995). Teachers must always remember to be

role models to their students being careful to feed attitudes and acts of love over attitudes and acts of hate. Let us continue to celebrate Canada's evolving mosaic and be proud to live in a country that allows difference to thrive.

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Moving Towards Complexity

Brooke-Lynn Vandenberg

❧ **It is an undeniable fact that evolution has occurred**, but the mechanism as to how evolution has occurred remains a testable theory. Both Herbert Spencer and Charles Darwin offered theories as to how evolution occurred that differ in fundamental ways but share distinct similarities due to the influence of the scientific movement of the mid-nineteenth century. Spencer's theory of evolution, as seen in "Social Growth" encompasses social and political evolution rather than biological.[1] He argued that human cultures and societies developed the same way as biological organisms, developing inevitably towards higher levels of complexity through the mechanisms of compounding and re-compounding.[2] Spencer extrapolated the mechanism of evolution to explain the development of cultures.[3] In contrast, Darwin's theory of evolution, as seen in "On the Origin of Species" and "The Descent of Man," focuses on how man as a biological organism has evolved from lower level organisms through the mechanisms of natural selection and descent with modification.[4] Spencer and Darwin both explained how life moves towards complexity, but they explained the process from different scales and with different mechanisms. Ultimately, the similarities and differences between the evolutionary theories offered by Spencer and Darwin are the product of the nineteenth century scientific movement.

The mid-nineteenth century was an age of science, industrialism, and the secularization of society.[5] The world became empirical, focusing on the interpretation of nature and society through scientific observation and experimentation.[6] It was an age of realism.[7] Building off of the Enlightenment, the scientific movement of the nineteenth century served to undermine traditional spiritual beliefs and romanticism to push the secularization of society.[8] Scientists

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[6] Ibid.

[7] Ibid.

[8] Ibid, 567.

of the nineteenth century viewed religion as an obstacle to progress.[9] Darwin reiterates the scientific view of the mid-nineteenth century by saying, "we are not here concerned with hopes or fears, only with the truth, as far as our reason permits us to discover it."[10] Darwin, and many scientists of the mid-nineteenth century, viewed religion as a concept created from the imagination of humans once they had arrived at sufficient mental faculties and derived culture, saying that God did not exist because it was only a concept of man's imagination derived through the development of culture.[11] The progressive model of the Enlightenment and the nineteenth century in tandem with socio-economical changes, created a viable platform for scientists of the mid-nineteenth century to discuss revolutionary ideas like evolution.[12]

One of the most important advances of society in the mid-nineteenth century was the theory of evolution established by Charles Darwin in his book "On the Origin of Species" in 1859.[13] Darwin's evolutionary theory sought to explain what biological mechanisms were responsible for the diversity of life.[14] He explained how organisms have evolved from lower levels of organization to higher levels through the mechanisms of natural selection and descent with modification.[15] Darwin explained that natural selection acts on variations in character, to adapt forms of life to their environments, and thereby natural selection involves the extinction of less improved forms of life[16]. Extinction was the result of failure to adapt.[17] His idea of natural selection was contingent on variation within a population.[18] Darwin then used natural selection and descent with modification in "The Descent of Man" to explain how man developed from lower level organisms and how man's mental and moral faculties distinguished him.[19] Darwin provided insurmountable evidence for his claims, providing evidence of developmental, embryological, and structural homologous between man and lower level organisms.[20] Darwin's idea of natural selection, was one of the most significant scientific discoveries of the mid-nineteenth century.[21] He was able to apply concepts from the social sciences to explain biological processes and revolutionize natural history.[22]

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[9] Ibid.

[10] Charles Darwin, "The Descent of Man", 10.

[11] Perry et al., 565.

[12] Elliott, P. "Erasmus Darin, Herbert Spencer, and the Origins of the Evolutionary Worldview in British Provincial Scientific Culture, 1770-1850". *History of Science Society* 94, no. 1(2003): 11.

[13] Perry et al., 562.

[14] Offer, 306.

[15] Ibid.

[16] Offer 307; Freeman, 213.

[17] Offer 307.

[18] Freeman, 213.

[19] Charles Darwin, "The Descent of Man", 4.

[20] Charles Darwin, "The Descent of Man", 5; Freeman, 213.

[21] Freeman, 212.

[22] Ibid, 213.

Darwin was foremost a naturalist.[23] He served as a naturalist, voyaging on the H.M.S. Beagle between 1831-1836, where he was able to observe a wide range of biological phenomena around the world.[24] His travels were significant in the development of his theory of evolution and sparked his ideas about the mechanisms of natural selection and descent with modification.[25] Upon his return to Cambridge in 1837 Darwin further developed his idea of natural selection by studying specimens that he collected from the Galapagos Islands on his voyage.[26] However, it was the mathematical principles of Malthus and papers on sexual and artificial selection that Darwin read that helped him realize how natural selection acts on populations.[27] Due to the radical nature of his ideas, Darwin was wary of publishing his theory of natural selection.[28] Therefore, he further employed the scientific method and researched natural selection for twenty years to provide insurmountable evidence for his claims.[29]

Darwin was so wary to publish his ideas of natural selection and descent with modification because of the criticism of Lamarck, a scientist that had presented similar radical ideas to Darwin's.[30] Darwin himself had judged Lamarck's work as extremely poor.[31] Lamarck believed that organisms could adapt a character to their environment and their offspring would inherit the adapted character.[32] He also believed that nature inherently moved towards progress.[33] Lamarck did not offer evidence or any mechanism of how his theory worked, therefore, by offering twenty years worth of experimental evidence and an actual mechanism, Darwin differentiated himself from Lamarck.[34] Lamarck's theory did not only influence Darwin, it also influenced Herbert Spencer.[35]

Herbert Spencer was a popular secular philosopher that adapted Lamarck's mechanism of biological change to explain biology, psychology, and human culture.[36] He believed that Lamarck's mechanism of change was the primary factor driving change in human life and that the theory of evolution could be extrapolated to explain the universe.[37] Spencer believed that evolution occurred in an overall progressive direction from homogeneity towards increased heterogeneity.[38] He believed that change was the result of an inevitable and unknowable force

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[23] Freeman, 212.
[24] Ibid.
[25] Ibid.
[26] Freeman, 212.
[27] Ibid, 213.
[28] Ibid.
[29] Ibid.
[30] Ibid.
[31] Ibid.
[32] Offer, 307.
[33] Freeman, 213.
[34] Ibid.
[35] Offer, 308; Freeman, 216.
[36] Offer, 308; Freeman, 216.
[37] Offer, 307; Lockerd 174.
[38] Offer, 307.

that occurred in a definite direction towards complexity.[39] Spencer was influenced by Lamarck and adapted his own theory of evolution, based predominately on Lamarckian assumptions, to apply to human species.[40] He believed in a progressive evolution powered by the Lamarckian mechanism of characters acquired from adults adapted to their environment.[41] Spencer applied his theory of evolution to the human cultures and societies.[42] He defined his sociocultural theory of evolution as a progression of simple to more complex forms through variation and differentiation.[43]

Spencer argued in "Social Growth" that societies develop through the same mechanisms as biological organisms.[44] He extrapolated his idea of evolution to explain how human cultures move inevitably towards higher levels of complexity.[45] Spencer believed that societies progressed through problems imposed by culture and the environment, conveying that habitable environments with abundant resources were necessary for societal growth.[46] He proposed the mechanisms of compounding and re-compounding to explain how social growth proceeds.[47] He argued that the formation of larger societies can only result from smaller societies joining together or compounding.[48] He argued that often the compounded larger societies are not permanent and will split apart unless the society is obedient to a controlling leader.[49] Once compounded societies are stable and consolidated under a leader, the process repeats to compound further, or re-compound, and two compounded societies join together.[50] He argues that this process is analogous to that in biology, such as aggregations of sponges.[51] Once compounded societies exist, social classes and industries also undergo the process of compounding and re-compounding.[52] As societies increase in size, communication, localization, mutual dependence, and the specialization and differentiation of industries must occur so that each part of a society depends on another.[53] Ultimately, Spencer "naturalized" society to help him understand the development of societies.[54] Therefore, Spencer was able to apply biological evolutionary concepts to explain social and cultural development towards complexity.[55]

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[39] Perrin, R. "Herbert Spencer's Four Theories of Social Evolution". *American Journal of Sociology* 81, no. 6 (1976): 1341; Freeman, 215.
[40] Freeman, 215.
[41] Offer, 307.
[42] Ibid.
[43] Perrin, 1357.
[44] Lockerd, 174.
[45] Ibid.
[46] Perrin, 1342.
[47] Ibid, 1354.
[48] Herbert Spencer, "Social Growth", 228.
[49] Ibid.
[50] Ibid, 229.
[51] Ibid, 228.
[52] Ibid, 230.
[53] Herbert Spencer, "Social Growth", 230-231; Elliot, 24.
[54] Elliot, 24.
[55] Freeman, 215; Lockerd, 174.

Spencer's ideas of evolution were influenced by his early life growing up in the English town of Derby.[56] The town of Derby was a community of natural philosophers and a manifestation of the Enlightenment scientific culture between the 1780s and the 1850s.[57] His father's position as a leading scientific activist in the Derby Philosophical Society, and the scientific culture of Derby, were crucial to Spencer's intellectual and educational development, giving Spencer access to many resources and encouraging him to undertake experimentation.[58] Although Spencer did not develop his theory of evolution until the 1850s when he had moved to London, his evolutionary ideas were highly influenced by the work of a major player in the Derby Philosophical Society, Charles Darwin's grandfather, Erasmus Darwin, who worked on a evolutionary theory of developmentalism in geology to argue that nature progressed towards perfection.[59] Spencer was also influenced by Lamarck, Lyell, von Wolff, Goethe, von Vaer, and many others whose works were available through the Derby Philosophical Society, to come to the conclusion that evolution occurred in an overall progressive direction from incoherent homogeneity to coherent heterogeneity.[60] He believed that this law was applicable to natural history, geology, human cultures, government, legislation, religion, and even language and music.[61] For Spencer, evolution was synonymous with a universal law of progress.[62] Due to Spencer's evident focus on progress, Erasmus Darwin's developmentalism, in addition to Lamarckian mechanisms, clearly influenced Spencer's methods.[63] Therefore, Spencer's understanding of biological and societal evolution through inevitable progress was evidently influenced by his association with the Derby Philosophical Community.[64]

Due to their shared focus on evolution, Spencer and Darwin are often talked about together, but their theories of evolution are derived from two very different perspectives, with different mechanisms on different scales.[65] First of all, Darwin's theory of evolution was considered an application of the social sciences to explain biological processes of diversity. Alternatively, Spencer's theory of evolution was an application of biological concepts to explain all progress in the universe, and an as seen in "Social Growth", the development of cultures and societies.[66] Therefore, they seem to represent inversions of applied concepts, Darwin applied social sciences to explain biology and Spencer applied biology to explain social sciences.[67] Darwin's theory of evolution was also inherently scientific because he provided a defined mechanism of change, natural selection, along with twenty years of experimental evidence to

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[56] Elliot, 3, 11.
[57] Elliot, 3-4.
[58] Ibid, 12-13.
[59] Elliot,7, 11, 13, 15, 24.
[60] Elliot 20, 23; Offer 311.
[61] Elliot 23.
[62] Ibid.
[63] Ibid, 17.
[64] Ibid, 28.
[65] Offer 310.
[66] Freeman, 213; Lockerd, 174.
[67] Freeman, 213.

support his claims.[68] Spencer on the other hand, did not provide any experimental evidence for his claims other than referencing many different societies and aggregations of biological organisms in "Social Growth", which many found were inaccurately applied to prove his theories.[69] His theory of social evolution was inherently theoretical. Spencer attempted to use biological concepts to come up with a grand philosophy of progress that could extend into the realm of human society.[70] Therefore the theories of evolution proposed by Darwin and Spencer were derived from two inherently different processes, one experimental and one theoretical, and this impacted the perspectives from which they understood and explained evolution.

The perspectives and scale of Spencer and Darwin's evolutionary theories also differ. Darwin focused on how natural selection acted on variations within a population, while Spencer focused on how progress acted on multiple populations to join and grow societies.[71] Although they both sought to explain the evolution of man, they also explained it from different perspectives. Darwin focused on the evolution of man from lower level organisms and discussed how men are differentiated by moral and mental faculties.[72] Darwin also talked about man's inherent social instincts and how man's moral capacities are acquired through natural selection to aid in social activities.[73] Alternatively, Spencer focused on how societies of man aggregate to form increasingly more complex and heterogeneous societies.[74] He did not focus on how man as a species had evolved like Darwin, but how man as a species had cooperated to form increasingly complex societies, much like other biological organisms.[75] Ultimately, the two different perspectives of Darwin and Spencer differentiated how they applied and explained their evolutionary theories.

Darwin and Spencer also proposed two different mechanisms of evolutionary change. Darwin proposed the mechanism of natural selection and descent with modification to describe biological diversity, while Spencer proposed the mechanisms of compounding and re-compounding to describe social growth.[76] Darwin focused on how modifications due to the environment resulted in the survival of the more adapted biological organisms, while Spencer focused on how societies aggregated together to progress towards more complex and larger societies.[77] Spencer's theory of evolution was also inherently Lamarckian, and was derived from the Lamarckian idea of the inherent movement towards progress.[78] His focus on inherent

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[68] Ibid, 215.
[69] Freeman, 216; Offer 306.
[70] Lockerd, 176.
[71] Charles Darwin, "On the Origins of Species", 1-2; Herbert Spencer, "Social Growth", 227.
[72] Charles Darwin, "The Descent of Man", 7-10.
[73] Ibid, 7-10.
[74] Freeman, 218.
[75] Charles Darwin, "On the Origins of Species", 1-2; Charles Darwin, "The Descent of Man", 7-10; Herbert Spencer, "Social Growth", 227.
[76] Freeman, 213; Lockerd 174.
[77] Charles Darwin, "On the Origins of Species", 1-2; Herbert Spencer, "Social Growth", 227.
[78] Freeman, 214.

progress was also influenced by the work of Erasmus Darwin.[79] Although Charles Darwin was also influenced by Lamarck, the degree to which is dramatically different.[80] Darwin did not believe in Lamarckian progress, he rather believed in the natural tendency of organisms towards adaptions of increasing perfection to their environment, however, he did not believe that natural selection could produce absolute perfection.[81] Spencer's theory of evolution was driven by an inevitable force of nature that acted in the direction of inevitable progress from incoherent homogeneity to coherent heterogeneity, but Darwin did not believe any notion of necessary progress or a driving force.[82] Darwin's theory of evolution had no direction or force of change.[83] He believed that evolution occurred due to divergences in character that resulted from variations in a population being selected to adapt to the environment.[84] Therefore, the different mechanisms that Darwin and Spencer used to explain their theories of evolution distinguish the fundamental differences in the foundations of their theories, resulting in two very different understandings of evolution.

Although Darwin and Spencer's theories of evolution differ in many ways, similarities between their theories still remain.[85] Both Darwin and Spencer believed that the environment played a role in evolution. In Darwin's theory of evolution, natural selection acted on variations in populations to adapt organisms to their environment.[86] Spencer also believed in the role of environment in evolution. He promoted the Lamarckian mechanism of parents adapting a structure to the environment and passing the adapted trait to their offspring.[87] He also believed that the environment played a role in social growth, as a habitable environment with more food and resources was necessary for the growth of a society.[88] Therefore, Darwin and Spencer similarly acknowledged the important role of the environment in evolution.

The most important similarity between the theories of Darwin and Spencer is that both of their theories lent themselves to the progressivism of the nineteenth century.[89] They were both influenced by scientists such as Lamarck, Lyell, Erasmus Darwin, and many other important scientists of the Enlightenment and the nineteenth century.[90] They both developed under the same scientific cultural environments that fostered their genius and curiosity to explain the world around them in a realistic and secular way.[91] Their theories are both a product influenced by the scientific movement of the nineteenth century. Therefore, their ideas of

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[79] Elliot, 20-23.
[80] Freeman, 218.
[81] Ibid.
[82] Freeman, 218; Offer 308.
[83] Ibid.
[84] Charles Darwin, "On the Origins of Species", 1-2; Offer, 308.
[85] Offer 305.
[86] Charles Darwin, "On the Origins of Species", 1-2.
[87] Offer 307.
[88] Herbert Spencer, "Social Growth", 227.
[89] Lockerd, 176.
[90] Freeman, 215; Elliot, 2.
[91] Elliot 28.

evolution, although conflicting, both represent the secularization, progressivism, and scientific perspective of the mid-nineteenth century.[92]

In conclusion, Darwin and Spencer both explain how life moves towards increased complexity, but with conflicting evolutionary theories.[93] Darwin explains evolution from a biological and inherently scientific perspective, using the mechanisms of natural selection and descent with modification to explain how organisms adapt to their environments and how man has evolved from lower level organisms, focusing on the scale of populations.[94] Alternatively, Spencer explains evolution from a socio-political and inherently theoretical perspective, using the mechanisms of compounding and re-compounding to explain how homologous societies progress into large heterogeneous conglomerates, focusing on a scale of societies.[95] Spencer's evolutionary theory was contingent on the idea of an inevitable progressive force due to his adoption of Lamarckian mechanisms.[96] Meanwhile Darwin did not believe progress was an inevitable force, but that adaptions had the tendency to become more perfect or adapted to their environment.[97] Although the theories of Spencer and Darwin differ, are discussed together even today because they both represent the scientific, secular, and progressive mindset of the mid-nineteenth century and important scientific advancements of the century.[98]

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[92] Lockerd, 176.
[93] Offer 305.
[94] Freeman, 213-215; Lockerd, 174
[95] Freeman, 215-216; Offer 306; Lockerd 174.
[96] Freeman, 214.
[97] Freeman, 218; Offer 308.
[98] Lockerd, 176.

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Contributors

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Stephanie Bauer. I am majoring in Psychology at St. Mary's University and am double-minoring in Sociology and Science Studies. I hope to one day work with children or the elderly and help as many people as I can with my Psychology background. I enjoy spending time reading the Harry Potter books and playing with our family pets. I am fortunate to have a loving and supportive family and friend network that I love and appreciate very much.

Kyrie Bouscal is in her third year of the English program at St. Mary's University. Though she took Philosophy as a required course, she enjoyed taking the content and applying it to something she cares about, resulting in a passionate argument paper. She hopes to take this passion into her future as a teacher.

Cara-Leigh Casavant. I am a visiting student at St. Mary's University. I've studied here for the past year and will graduate from University of Calgary this spring, with a Bachelor of Arts, majoring in Culture & Communication (multidisciplinary) and minoring in psychology.

Richard Keli Gowan. Keli's friends would describe him as that guy over there in the blue jacket. Let's add that he's a big fan of academics, seeing as embellishment is the essence of storytelling. When he isn't indulging in the stress of school, Keli spends his days selling comic books while pondering the ethical implications of a Justice League.

Emily Grant. After spending two years as a full time Catholic Missionary overseas, Emily Grant chose to attend St Mary's University to pursue her Bachelor of Arts degree with a Major in History and a Minor in Catholic Studies. One of her primary areas of interest is Church history. She will be convocating in spring of 2020 and hopes to continue to study Church History and Theology at the Masters level. Emily's paper on the New Catholic Evangelisation was presented at the Christianity in its Contexts Conference in Spring of 2018 in Edmonton, AB, and Emily is excited to have it published in The Attic and hopes to continue researching the topic.

Tracy Iverson is presently attending the University of Calgary in the Master of Arts in History with a concentration in Canadian History. Aside from her interest in all things old and mysterious, she also maintains her passion for literature and the arts. When she is not busy studying, Tracy enjoys spending time with her family.

Amy Johnson. During her time at St. Mary's University, Amy has developed an interest in studying adolescents, and their development. She plans to enter graduate school so that she can open her own clinical practice, and hopefully, an adolescent mental health center in her community.

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Barbara Telford is a recent graduate of St. Mary's University having completed her Bachelor of Arts with a major in History in May 2019. She is currently taking a small break from the academic world but is planning on attending graduate school in the near future. Her main area of interest is Canadian history, particularly the lives of women.

Dylon Thompson is a fourth-year Bachelor of Science in Biology student. For his capstone project he created online pre-laboratory quizzes for the Organic Chemistry I and II courses, which were then implemented in the 2018 Fall and 2019 Winter semesters. Dylon wants to share his successful quiz format with others.

Samantha Thompson. I am completing an Education degree at St. Mary's University. I have a Liberal Arts degree from Quest University Canada and worked in special education. I like uncomfortable conversations, creative expression, and acts of empowerment. I hope to inspire students to see beyond boundaries, and to choose love over hate.

Brooke-Lynne Vandenburg. I am currently completing the fourth and final year of my Biology degree with a minor in Management. I am hoping to get into veterinary school after the completion of my undergrad and become a veterinarian. I am interested in animals, biology, travel, and nature.

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