The Undergraduate Scholar welcomes submissions from current Indiana University students in all areas of study. Papers of any length are accepted, but submissions should have implications broader than an individual assignment or course. The entries are judged by the undergraduate editorial staff based on attention to mechanics, style, content, clarity, and contemporary appeal. The staff reserves the right to edit submissions for clarity but also welcomes the author’s participation in this process. The Undergraduate Scholar also accepts artwork, including prints, photographs, paintings, and works in other media.

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Indiana University Hutton Honors College
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Bloomington, IN 47406

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The artwork featured in this issue is courtesy of Juliana Dumas, who is currently pursuing a BFA degree in Metalsmithing and Jewelry Design from the Henry Radford Hope School of Fine Arts at Indiana University. Upon graduating in May 2010, she will also receive a degree in Italian and a minor in Art History. Juliana spent the 2007–2008 school year studying at the University of Bologna in Italy, during which time she had the opportunity to travel throughout Italy and Europe. After graduating, she hopes to eventually go on to get her MFA in Metalsmithing and Jewelry Design and pursue a career as a jeweler and possibly teach in the more distant future. Juliana has received many awards during her undergraduate career including the Provost’s Award for Undergraduate Research and Creative Activity and the Alma R. Eikerman Scholarship, has had her work published twice in Canvas Creative Arts Magazine, and has exhibited work at the Society of North American Goldsmiths Conference in Houston, Texas.

To view the artwork featured in this issue in full color, please visit The Undergraduate Scholar’s website at http://www.indiana.edu/~uscholar/.
When I joined the staff of the Undergraduate Scholar four years ago, I was as unsure about what the magazine was about as I was of what my major would be. Little did I know that my work with the Scholar would cement my love of language and, eventually, lead me to my English major. The uncertainty of being a freshman at a place like Indiana University is just the beginning of the exhilarating mutability of undergraduate life. We undergrads can stretch our legs, change our minds, explore our interests, stress the tough classes, find our strides, and—inevitably—change our minds again. But no matter how long or short, complicated or simple, daunting or inviting our journey has been, graduates of the social and academic life at Indiana University can leave having found their own voice. It is exactly those unforgettable voices that the Undergraduate Scholar seeks to promote.

The staff of the Undergraduate Scholar is proud to announce that during this academic year we have produced two issues and showcased an increased number of Indiana University undergraduates. Together, these scholars represent some of the brightest minds of the undergraduate community. The staff of the Undergraduate Scholar is proud to present them to their peers.

Happy reading,

Jane Barr
Coordinator, The Undergraduate Scholar
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The Art of Forgery
Alexandra Moxley
How does one become a forger? Is it simply a decision, or a necessary path taken when no alternative exists? In many cases art forgers have well-developed skills, and prove to have an uncanny artistic ability to imitate certain styles. “Art forgery has existed as long as there have been valuable and admired works of art to forge.” Elmyr de Hory is one of the most renowned art forgers of the twentieth century, and his story is an interesting one. De Hory started off as an aspiring artist, but did not achieve much success. Consequently, he decided to start imitating works others had done and discovered he had a certain knack for that type of work. Thus, Elmyr de Hory embarked upon his journey to become a successful forger. Other artists had similar rocky starts when trying to sell their own artwork and ended up turning to forgery instead. Forgers are indeed artists and possess a unique subset of skills. While forgery is illegal and often seen as immoral, there are still many talents necessary to become a successful forger. As technology and forgery detection techniques became more advanced, forgery evolved into an art that relies heavily on the science and analysis of materials used.

When discussing art forgery, it is important to consider the motives of forgers. For example, as works of art become more rare, their value increases, and thus forgers stand to gain a monetary reward from producing acceptable replicas. Forgers are also “encouraged by easy success and pleased by substantiated financial reward.” If an artist finds immediate success in forgery, he will most likely continue the practice. In many cases, monetary gain is motive enough, but there are other common motives also. At times, a forger may be trying to revive a certain style and in the process create an exact replica of a past work of art. Forgers may also want to test their talents against the famous artists to see how they stack up. In this case, artists might get a certain rush out of discovering their artwork has been mistaken for a Monet and continue producing this style for as long as people believe these pieces are the real deal. “In many cases the author may not have dreamt of deceiving anybody, yet all the same his work was taken later on for something it had not meant to be and thus became a source of deception.” In fact, a certain number of discovered “fakes” are traced back through the provenance (ownership history) to find that the original artist or owner does not even know that the artwork is now being portrayed as the work of a famous artist. In this case, the work of art can hardly be considered forged, as the mere act of copying a work without intention to sell is not necessarily considered a forgery.

From the beginning of art education, the practice of copying famous works of art has been used as an instructional tool. It was originally seen as a way to teach the fundamental skills necessary to become a great artist. In order to develop one’s own style, the study of various techniques was essential. There was no better way to study a particular style than to replicate it. These copied works of art, not produced with the intention to sell, are not considered forgeries. If mere copying is not considered forgery, this leads to questions about what exactly is forgery. Art historian Hans Tietze suggests:
“A painting, sculpture, or any product of an artistic character may be called a forgery if it has been made with the intention of passing it off as the work of a different hand or of a different period. The essential feature of art forgery is not imitation, which may have many other motives, but the intention to deceive either the general public or prospective buyers.”

In the workshops of artists, pupils replicated famous works over and over again. Today, these works are seen as forgeries if sold as an original of the copied artist. Yet, that was not the original intent for the artwork. Problems arise when a forged signature is present. Conceivably, if a signature is added to a copy, it can be considered a forgery since that signature would be deceiving. Adding a signature is actually one of the most frequent methods of falsification. At one time, slightly altering paintings to make them more pleasing to the public based on period tastes and passing trends was a common practice among art restorers. However, this is now seen as unacceptable and is defined as forgery. The various methods of forgery, and even technicalities that exist defining when a copied work is a forgery, lead to ambiguity in the art world considering potential forgeries.

One particularly famous forger from the twentieth century remains a prominent figure in the art world today. From an early age, Elmyr de Hory began honing his talents in art school like most young artists. He studied at l’Académie la Grande Chaumière under Fernand Léger. In school he discovered that he possessed a wide variety of artistic talents through replicating the different styles of many old masters. This is particularly impressive since most artists typically excel in only one or two styles. However, when it came to developing his own unique style that appealed to the art community, he did not have as much success. De Hory tried to sell his landscapes and nudes to galleries in Paris, but they were continually rejected.

This feeling of rejection can be degrading and discouraging, particularly for a young aspiring artist. So, not necessarily intending to do so, de Hory made his first fraudulent art sale in 1946 when an Englishwoman mistook a wall drawing for an unsigned Picasso. After seeing how his artwork could be naturally mistaken for that of an old master, Elmyr de Hory tried his hand at forgery. From then on, his continual success kept him in the business of deception. Towards the end of his career, de Hory was fooling not only the average art buyer, but art experts as well. He even sold a painting to a Picasso representative, passing it off as authentic. Interestingly, de Hory never attempted to sell a painting to a museum that did not end up buying it. The peak of de Hory’s career came in 1955 when he duped the Fogg Art Museum at Harvard into buying a “Matisse” that he had forged. He also offered to lend a few other paintings to the museum, which raised suspicions. After some investigation, the museum discovered that the artworks were fakes, and they were never actually displayed in the museum. Despite his discovery, it is important to remember that the triumph here was that the museum initially believed his forgeries were authentic paintings.

After kicking off his start in the world of forgery, de Hory moved to the U.S. where he remained successfully undetected for eleven years, outstaying his three month
visa. There he developed the skills necessary to produce drawings, gouaches, watercolors, and oil paintings. He studied and practiced, eventually expanding his range of talent to allow him to forge works in the style of a variety of artists such as Matisse, Picasso, Braque, Degas, Modigliani, and Renoir. He was able to produce believable forgeries due to his similar background to the artists he forged. After studying with them, he was well acquainted with the artists and became surer of himself while painting. De Hory was able to connect with artists’ feelings and reproduce the emotions they had felt while painting. His strength, and arguably most defining characteristic, was his ability to truly feel the emotions he was attempting to replicate. “By studying the techniques and styles of an artist, a skilled, determined forger [like De Hory] can produce a copy that is extremely difficult to distinguish from an original.”

Elmyr de Hory took to painting “in the style of” these famous artists. Painting “in the style of” the artists allowed him a little more freedom when it came to forging and made passing the works off as authentic easier. This is because de Hory’s work did not necessarily have to be directly compared to an actual work that had been painted, and thus could pass more easily as the artwork of a master. Elmyr de Hory stood out among forgers because he was not “faking” the emotions of the artists before him. Instead, he truly understood the emotions he was trying to reproduce. Toward the end of his career, however, Elmyr de Hory started to get greedy and was less careful when producing his paintings. He did not let the paint fully dry, so they were seen as “fresher” and able to be determined as forgeries. In 1969 Clifford Irving produced the book Fake!, telling the story of de Hory’s life. The accuracy of Irving’s book has been called into question over the years, but the book’s stance that de Hory’s mysterious life of forgery was wildly successful is not debated. After being discovered, de Hory continued to paint in the style of other artists, signing the back of each work of art with his own name. Elmyr de Hory became extremely popular and remains so to this day, having produced over one thousand works of art in just twenty years. In fact, there is currently a market for de Hory’s signed forgeries that tend to sell for as much as a Picasso or Modigliani does. Today there are even forgers of de Hory’s forgeries.

Elmyr de Hory was obviously a very talented artist. Although he was not able to thrive as an honest artist, his forged paintings are seen as masterpieces by many. “He knew what he was doing. He chose his subjects exclusively from the period he understood best—he was a product of the same epoch, the same European background, the same schools of artistic thinking and he was never tempted to stray.” Elmyr de Hory was also extremely disciplined when it came to the types of forgeries he produced. His broad skill set gave him many options, and he never ventured into a realm that he could not handle. By studying in a similar setting to the masters, de Hory was able to develop the same strengths. Clearly, de Hory had talent, yet when he was trying to get his name out there in the early days, he kept hitting roadblocks. Since he was not well-known, people were hesitant to automatically accept the artwork he produced. It is interesting what a “name” does to a work of art. People seem to love the idea of owning a Picasso and do not mind the expense, yet they are less inclined to pay large sums of money for other lesser-known artists that may have just as much talent. De Hory’s story and con-
tinued success after being discovered as a forger is a testament to the talent required to survive in the art market. Buyers thought they were purchasing the work of a famous artist, thus the paintings were considered masterpieces. In reality, de Hory was the one who produced these works and shared his talent with the unsuspecting public.

The frequent surfacing of forgeries in the art market have stimulated the development of methods of forgery detection. Over time, these methods have evolved, forcing forgers to evolve their own techniques as well. In the beginning, a mere signature could be added to a decent painting to pass it off as a forgery. Once that practice became obsolete, forgers had to include a variety of attributes proving the artwork authentic. Not only did the painting have to be an impeccable stylistic replica, but it had to be done on the right paper, with the right paints, and in the right time period. Some of these features were easier to fake than others, and considering the methods forgers used to replicate a work of art is intriguing. For example, marks of decay and aging would be added artificially to enhance the believability that the painting was an original. A classic mistake involves forging a piece of artwork on paper that was not yet available in the year the original was made. This is seen commonly in prints. Since the original print template remains intact, prints would seem to be easy to forge. However, forgeries can easily be detected if the paper does not have the same amount of aging as the known original authentic prints. “Detecting modern forgeries of old masters was relatively easy because technology could date canvases, pigment and even dust soot. Thus, forgers add the appearance of age to their works.”13 In order to give the artwork the proper aged look, forgers have committed acts such as “the baking of paintings, the incision of artificial cracks, the yellowing of paper and browning of varnish…old tricks [that] will continue to be used, gradually perfecting themselves to keep in step with new methods of detection.”14 It becomes harder to detect these forgeries when the forged prints were made around the same time period as the originals. In this case, detecting a forgery from the quality of the print is possible because the template becomes less and less defined as more prints are made. Other methods of detecting forgeries involve looking underneath the paint layer of the painting. Removing the top layer can reveal a lot about a certain work of art. For example, there often exists an outline of a drawing underneath. Usually this drawing will correspond to the finished work; however, in some cases a completely different sketch is observed. Unless there is historical proof validating this vastly different under-drawing, a variation might indicate that the work is a forgery. Artists tend to reuse canvases, which could account for the differences between the under-drawing and the final painting in a legitimate work of art. Further analysis may reveal the original work of art underneath the new one and can expose a forgery. The key to forgery is to be “one step ahead of the expert…the surprise element is one of the most valuable assets of the forger.”15 If a certain method of forgery has not been seen or even done before, it is more likely to be successful and remain undetected since the deception will not be expected and people will not be looking for it. Experts on the art of forgery say that once a work is determined to have been produced during the correct time period, it all comes down to style. That is when art experts come into play, as declaring a work of art to be a fake may come down to a matter of opinion.
Not only do forgers have to possess skills giving them an uncanny ability to reproduce styles of various artists, but they must also be extremely adaptable, allowing their practices to change with the times as new methods of forgery detection are developed. One big change in the style of forgeries was a shift toward creating works “in the style of” an artist, as opposed to replicating a specific work of art. Generally, forgers that reproduce works “in the style of” certain artists achieve greater success, as pegging the pieces as forgeries is more difficult, as was the case with de Hory. Thus, they can thrive longer in the art market. When an “original” work of art is not available for comparison, the authenticity of a painting is called into question less often. The development of electronic databases has made photographs of different works easily accessible, making forgery a bit more difficult. The image of a “real” and accepted version of a certain painting can be readily compared to the suspected forgery. Consequently, a trend toward forgeries “in the style of” different artists has developed to avoid the ability of comparison.

The goal of the critic is to investigate the outer and inner characteristics of a work, something that has always been done in some form. There are times when this investigation fails, proving the necessity for scientific tools. In one instance, a forgery was so good that people did not believe it was a forgery, even after the artist confessed. In 1945 Van Meegeren forged *The Supper at Emmaus* and confessed to forgery upon “facing charges of collaboration for selling Dutch national treasures to the Nazis.”

In order to defend himself against the alleged charges, he “submitted to one of the strangest trials in art history in which his works were extensively tested scientifically…. He was also required to paint a ‘Vermeer’ under court supervision to illustrate his techniques.”

The scientific techniques used to determine that Meegeren’s work was indeed a forgery proved how beneficial these tests can be. Essentially, the trial proved Teitze’s quote, “Xrays, macrophotography and photomicrography, ultraviolet and infrared rays offer weapons which, if correctly applied and interpreted, are invincible.” Assuming a painting is suspected of forgery, the scientific methods of detection available today can usually not be tricked, even by the most skilled forgers.

Scientific methods of detection can be grouped into three broad categories: visual techniques, identification of pigments, and direct dating. The most widely used visual techniques include infrared and ultra-violet radiation, X-ray photography, and optical microscopy. These techniques can reveal the date of the artwork as well as layers of hidden paint in areas that have been restored. An even simpler method of using raking light (shining light at a glancing angle) on the surface of the painting can also reveal information about the texture, which tends to be characteristic of certain artists. These visual methods can detect damage to paintings as well.

Surface cracking (craquelure), a characteristic typical of old paintings, can be exposed using these visual methods. Although reproducing surface cracking has been a challenge, forgers have developed a method of applying “a light coat of varnish to the painting, and then roll[ing] the painting around a cylinder so that it cracks.” In addition, some forgers use old canvases with already existent cracking and simply paint over the initial image. Since oil paint takes many years to dry, forgers mix the paint with quick dry substances and then bake the canvas in order
to reproduce the appearance of aging. "Dry to the touch is different from dry in the chemical sense. Paint is dry when all of the solvent used to carry the pigments is gone and the polymer coating has completely formed." Expert forgers are aware of the complex properties of paint and pigment, and must keep up with the newest techniques used to replicate older styles. X-ray photography can be used to examine each layer of paint and is especially useful "to detect retouching, under-painting, and detail of the artist’s technique...it can also be used to identify older paintings beneath the surface." Ultraviolet light is useful because paints and varnish from different time periods have varying fluorescent properties.

Identification of pigments is another advance in the world of forgery detection and can be especially revealing. Originally, pigments had to be made by the artist, so paint composition tended to be characteristic of the region and time period in which the artist painted. Forgers specifically use pigments consistent with the original to avoid detection. Spectroscopic evidence can reveal the pigment composition and expose a forgery. Due to all of the advancing scientific methods of forgery detection, it is clear that "the forgery of modern art may often provide fewer challenges than the forgery of older material as the copy media have a much greater chance of being equivalent." Scientific methods analyzing the composition of the paint used are becoming more heavily relied upon when attempting to detect a forgery, especially when the work is older. If the paint of a forgery proves to be inaccessible at the time the original painting was thought to have been made, the painting is clearly a forgery. "Present methods work by finding inconsistencies in the trace element patterns of specific pigments in the palette." Forgers have to be extremely careful that the pigment they use in their work matches those of the time period from which they are making reproductions, or the work will easily be identified as a forgery. Scientific methods of detection have required the forger to become stealthier when producing artwork, leading to an evolution in the methods used by forgers.

It has been said that "Every forger we know is a failure; for a successful one, like a successful murderer, remains undiscovered." The forger’s failure, or discovery, has been "made more certain in these present years by developments in the scientific detection of forgeries... . Nowadays a forger to have any chance of success is going to have to be a physicist, chemist and radiographer as well as a painter." The evolution of the art forger over time has occurred simultaneously with the development of forgery detection methods. Elmyr de Hory, as well as many other art forgers, will continue to influence the art market and serve as an example to aspiring forgers. De Hory was a forger with an ability to express the emotions of artists, a skill that cannot be taught. He thrived in the art market for years and remained undetected due to his talent and innate ability to replicate the work of masters. With rapidly changing technology, forgers will have a more difficult time in the future. As long as forgers can produce replicas authentic enough to avoid suspicion, however, scientific detection methods will not even be used, and they will not be discovered. Although art forgery is a crime, the perfected skills of the forger cannot be ignored. Forgers possess the same desire for artistic expression, but they are artists with a different philosophy.
Endnotes

Works Consulted


Alexandra Moxley is a sophomore majoring in Biology and French. Additionally, she is in the Liberal Arts and Management Program (LAMP) and proud to be a rider for the first ever LAMP Little 500 Women’s team. In her scarce free time, Alexandra enjoys running, biking, and reading. She also hopes to complete a triathlon one day. Alexandra is excited to study abroad in Rouen, France, next semester and welcomes the challenge of adapting to a new culture and language. After completing her undergraduate studies, Alexandra plans to attend graduate school for either genetics or neuroscience. She is also considering the possibility of entering the world of international business.
Models for the Loss of Estrus and the Evolution of Concealed Ovulation

by Jeremy Borniger
Introduction:

Estrous is a phase of increased female sexual receptivity, proceptivity, selectivity, and attractiveness. It is common across mammalian species, including primates, and seems functionally designed to obtain sires of superior genetic quality.¹ It involves a suite of recurring physiological and behavioral changes that are visible signs of fertility in many mammals. In humans, the phenomenon of estrus is seemingly lost, and many theories have tried to explain the evolutionary mechanisms for this. Estrus signals fertility to potential mates and allows for suitors to evaluate the correct time for copulation. Ovulation is the process in the menstrual cycle by which a mature ovarian follicle ruptures and discharges an ovum that participates in reproduction.² When the follicle erupts depends on the species, the time of year, the presence of males, and the presence of other females. This article will discuss the physiology and behavioral aspects of the female menstrual cycle, and more specifically, theories describing how these traits evolved.

In human females, there are no obvious external cues to ovulation. Outside menses, attractiveness remains fairly constant across the menstrual cycle, as reflected in an impressively flat coital frequency, at least in comparison to almost all other primate species in the wild.³ This has come to be known as “concealed” ovulation, and its evolutionary background is under great scrutiny. There are conflicting viewpoints on whether or not human females exhibit concealed ovulation. It has been suggested ovulation may not be so concealed among humans living under more natural conditions where less emphasis on hygiene might mean olfactory cues are detectable.⁴ These studies suggest that female ovulation may not be primarily visible like some of our primate relatives, but rather more focused on olfactory cues to signal fertility to males.

Hormones involved in estrus and ovulation:

The two primary hormones responsible for female reproductive behavior are estradiol and progesterone. These hormones played a critical role in female evolution, as they directly affect reproductive fitness and therefore the continuation of the female lineage. Estradiol is secreted by the developing follicle and stimulates the growth of the endometrial lining (which will be “shed” during menstruation). After ovulation, progesterone and estradiol are secreted by the corpus luteum to prepare the endometrium for the implant of the ovum.

Estradiol and progesterone are also associated with changes in female behavior throughout the menstrual cycle. It has been demonstrated that estrogen stimulation is very important in receptivity. For example, lordosis can be induced in rodents by injections of estradiol and progesterone or sometimes estradiol alone.⁶ Lordosis is the curving of the back associated with female sexual receptivity in many species of rodents and other small
mammals. It is usually induced by male stimulation of the female’s genitalia prior to sexual intercourse. The opposite of lordosis is kyphosis, otherwise known as hunching of the back. Hormones associated with ovulation also meditate attractivity in females. In general, estrogens enhance attractivity.7 There are conflicting viewpoints on this issue as well. For example, in a study done by Harold Perksy and colleagues, they were unable to demonstrate significant relationship between plasma estradiol levels and any of the four stages of the human sexual response in healthy young women with normal menstrual cycles.8

Other hormones that mediate female reproduction are follicle stimulating hormone (FSH) and luteinizing hormone (LH). Both of these hormones are released by the anterior pituitary gland, and their release is controlled by the hypothalamus along the HPG axis. High levels of progesterone and estradiol signal the hypothalamus to decrease

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**Figure 1.** Changes of hormone concentrations in the blood during a 28-day menstrual cycle, and the associated changes in follicular development and ovulation (follicular phase), formation and degeneration of the corpus luteum (luteal phase), cyclical growth and degeneration of the endometrium of the womb, and changes in basal body temperature.5
production of FSH and LH. The lowering levels of estradiol and progesterone at the end of the cycle cause an increase in FSH. Once FSH reaches a certain threshold, the ovaries begin the creation of an ovarian follicle. The growing follicle releases large levels of estradiol, and eventually the pituitary releases a large surge of LH (seen in Fig. 1), causing the ovum to burst from the ovaries (ovulation), forming the corpus luteum. If there is no implantation, menses occurs and the whole cycle starts anew.

These hormones also have effects on female behavior. Women are more sexually active before and on the day of the pre-ovulatory LH surge (the time of maximal fertility). This pattern was pronounced when women initiated sexual contact but not when sexual activity was initiated by their male partners, suggesting women are more motivated to engage in sexual behavior but are not necessarily more attractive to their male partners at the time of ovulation.⁹ There seems to be no correlation between FSH and reproductive behavior.

Behaviors associated with the estrus cycle:

There are three phenomena to explain when dissecting female estrus and ovulation: constant female receptivity, concealment of ovulation from conspecifics (other group members), and concealment of ovulation from the females themselves.¹⁰ The three main behaviors associated with the female reproductive cycle illustrated by Frank Beach in 1976 still hold strong today and include receptivity, proceptivity, and attractivity. Receptivity is a female’s state of responsiveness to the sexual initiation of another individual. Proceptivity is the extent to which a female initiates copulation. Attractivity is the stimulus value of a female for a given male.¹¹ The changes in female behavior throughout the menstrual cycle are evident in the rhesus monkey. Measures of proceptivity, attractivity, and receptivity show that all these components of female sexual behavior are maximal when plasma estradiol concentrations peak near the time of ovulation.¹² Males always spend more time in close proximity to estrous than anestrous females.¹³ Females without ovaries are rarely attractive to males. However, their attractivity is greatly enhanced by estradiol treatment. When spayed female dogs were injected with estradiol, the average duration of visits by males was increased six fold. To fully understand the effects of the hormones involved in the estrus cycle, one must examine females when they are pregnant, or in a state of pseudo-pregnancy (on hormonal contraceptive). The birth control pill eliminates peak fertility effects on the female body and behavior by putting the body in a state of hormonal pseudo-pregnancy.¹⁴ Women prefer both the scent of symmetrical men and masculine male faces more during the fertile (late follicular and ovulatory) phases of their menstrual cycles than during their infertile (e.g., luteal) phases. Women in low-fertility phases of the cycle and women using hormone-based contraceptives do not show this pattern. Symmetry and is measured through levels of fluctuating asymmetry (FA), the idea being that, the lower the asymmetry, the more symmetrical the trait is. The fact that these shifts in preference, like those for facial masculinity, are specific to women’s evaluations of short-term mates further supports the premise that they may reflect an evolved
female adaptation to garner genetic benefits through mating outside of the single mating pair.\textsuperscript{15}

Evolutionary Models for the loss of estrus and concealed ovulation in human females:

The loss of estrus and concealed ovulation in humans can be attributed to many factors acting most likely simultaneously over a long period of time to enhance reproductive fitness. The loss of estrus most likely paralleled the slow evolution of culture. Sexual behavior is influenced by such living conditions as the space occupied and, in the case of social species, the isolation of the heterosexual couple.\textsuperscript{16} Constant contact with a member of the opposite sex may have alleviated the need for periodic visible signs of estrus in females. This would account for the shift to “constant receptivity” displayed today. Being constantly receptive facilitated the relationship between the female and male by not limiting sexual intercourse to just a few days per month. The presence of other males (especially outsiders) stimulates greater sexual activity independent of the phase of cycle in both males and females.\textsuperscript{17} Increased partner contact along with shared living space may have caused sexual behavior to evolve independent of the estrus cycle, and therefore decrease its importance in mediating reproductive behavior. The increase in group density and domestication may have played a considerable role in the evolution of human sexual behavior. Confinement to a hut or shelter of some kind and the constant physical presence of an individual of the opposite sex may have flattened the curve of the distribution of sexual activity across the cycle in \textit{Homo sapiens}.\textsuperscript{18}

These hypotheses focus primarily on the isolation of the heterosexual couple in a group living situation, but what impact did group living have on sexual activity and loss of estrus? The most widespread and popular explanations for the evolution of loss of estrus see the change in female sexuality as being at the heart of the human male-female pair bond.\textsuperscript{19} Couple isolation in a group setting facilitated pair bonding, by emphasizing contact with the group throughout the day, and shared sleeping quarters at night. Loss of estrus evolved to reduce male competition and aggression and to promote more cooperation and cohesion in the social group.\textsuperscript{20} Less visible signs of estrus may have directly affected male competition and ensured survival of more males to sire more offspring. Less physical competition among males resulted in fewer deaths, so more males would have a chance to procreate. Female primates that advertise their receptivity and readiness for conception with sexual swellings or pronounced pheromones openly encourage male conflict and competition.\textsuperscript{21} This is a good strategy to use on an individual basis, as the female then copulates with the strongest and most genetically fit male. If competition and violence is used universally though, offspring are at a high risk of infanticide and competition and violence flourish. While cultural growth probably did have a large effect on the evolution of loss of estrus, more factors must have been involved to cause the relatively quick evolution of concealed ovulation.

Bipedalism may have played a large role in the loss of estrus. The idea that there may have been some such swelling in the prehominines (late ape ancestors) and the early
Homininae is supported by the considerable length of the penis in *Homo*. The lengthening of this organ took place in the primates that have anogenital swelling (increase in the size of the connective tissue surrounding the genitals and anus). Swelling increases the depth of the vagina and proper penetration requires the longer penis.\(^{22}\) The loss of visible estrus during the evolution of bipedalism applied evolutionary forces to the anogenital swelling of the female, but not to the length of the penis of males. The size and flexibility of the human penis is more likely the result of female choice than sperm competition because sperm competition generally favors large testicles, as in the small-penised chimpanzee.\(^{23}\) It is possible that its “extra” length is connected with an already bipedal female. The disappearance of this feature is usually explained in terms of sexual selection for a change in reproductive strategy.\(^{24}\) Its reduction in size may have been caused by bipedal locomotion, the cost of water accumulation, hyperaemia (more blood flow) of the area, and an increase in adipose (fat) tissue. Furthermore, olfactory communication in the context of sexual behavior in the climatic conditions of the African savannah would have been sufficient for detection of the fertile periods of the menstrual cycle.\(^{25}\) The evolution of the modern female pelvis most definitely played a role in the loss of estrus due to the evolution of a more medial center of gravity to facilitate bipedal locomotion.

Many hypotheses have surfaced supporting the idea that loss of visible estrus was due to a change in female reproductive strategy in order to alleviate male infanticide and skew paternal certainty. Extended sexuality in multi-male groups might represent part of a female strategy to confuse paternity in order to reduce the risk of infanticide by males.\(^{26}\) Females that show strict signs of estrus are mated with for only a certain amount of time during their cycle, so fewer males will have access to her, increasing paternal certainty. By limiting the signs of estrus, more males are able to mate with the female, even when she is not at peak fertility, and have less certainty of paternity at parturition. To support this theory, men may have evolved to detect more subtle changes in the female menstrual phase, most likely sub-consciously. Men are particularly attracted to some features of fertile-phase women, but probably based on by-products of physiological changes males have been selected to detect, not because women signal their cycle-based fertility.\(^{27}\) Geoffrey Miller and his colleagues at the University of New Mexico, Albuquerque, discovered that lap dancers varied in their tip earnings throughout the menstrual cycle. Normally cycling participants earned about US $335 per five-hour shift during estrus, US $260 per shift during the luteal phase, and US $185 per shift during menstruation. By contrast, participants using contraceptive pills showed no estrus-related earnings peak.\(^{28}\) Males that could detect “hidden” female fertility better could determine when the best time to mate would be and have a higher certainty of paternity. The males that could detect fertility better would then in turn sire more offspring that could also determine peak female fertility times.

In 1978, Nancy Burley developed a hypothesis that could have contributed to the loss of estrus and promote concealed ovulation. She postulated that females reduced their signs of fertility in complement with growing intelligence, self-awareness, and desire to reduce pain and discomfort. Increased self-awareness and foresight in humans resulted
in the realization of one’s mortality and the willful avoidance of discomfort, pain, and danger. Child birth is a painful procedure (unlike in many non-human primates), and females may have developed concealed ovulation to confuse male suitors of when the correct time to copulate was. Child birth is not only dangerous and painful, but costly. Every child requires a large amount of energy from the mother and a long-term investment in care and supervision. As a result of female desire to avoid conception, physiological changes that lessened female awareness of ovulation were selected for, and eventually ovulation that was not detected resulted. This hypothesis makes sense in the short term, but in evolutionary terms, it would simply not work. If females chronically avoided conception to avoid the pain and cost of child birth, then no offspring would be sired and the lineage would wither. I postulate that while there may have been some women that selected to avoid childbirth, it was not a significant amount to cause the loss of estrus and promote concealed ovulation. This hypothesis does, however, account for the concealment of ovulation from the females themselves.

These have been thought of in the past as competing theories, but it was most likely a combination of these and more that prompted the loss of estrus and concealed ovulation. If sexual competition and mate choice can affect genitals, then genitals can be shaped by sexual selection. Culture was affected by bipedalism, so culture and bipedalism affected mate choice and sexual selection, changing the genitals.

Conclusion:

Female ovarian hormones positively correlate with attractiveness, proceptivity, and receptivity and mediate how females interact with each other and conspecific males. The use of hormonal contraceptives makes it so there is no peak of these traits throughout the menstrual cycle. The loss of estrus evolved out of many social and natural phenomena. Bipedalism affected the female and male anatomy and physiology in a way that, when complemented by social changes, altered the female reproductive strategy. The change in female reproductive behavior and anatomy lowered paternal certainty and male aggression/competition. The males that sired more offspring in a polygynous (multi-male and multi-female) society were better suited to determine peak fertility times of females with lack of visible estrus and ovulation.

The mechanisms by which loss of estrus and development of concealed ovulation occurred are not set in a strict chronological order. Just like there are many competing theories for why bipedalism evolved, there are many for the development of female sexual mate choice and behavior. Future research should try and find evolutionary evidence for these hypotheses. By discovering the mechanisms by which these changes occurred, one can determine how much of an impact each model had on human evolution. In order to understand the impact of culture on the loss of estrus, better techniques in determining and interpreting complex social systems in early-late hominid evolution are required.
Endnotes


17. Ibid.
18. Ibid.
20. Ibid.
25. Ibid.
28. Miller, Tybur, and Jordan, “Ovulatory cycle effects on tip earnings.”
30. Ibid.
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As the debate about health care rages on in the United States, a key component is absent—a frank discussion on the issue of inequality. The role of economic inequality in the health care debate involves the idea that President Barack Obama is trying to sell a health care initiative to the middle class. Because the term “middle class” is difficult to define, however, it appeals to a broad range of people. Also, those who are poorest, rather than the middle class, are the ones really in need of more affordable coverage. Economic inequality is augmented by health care inequality, and it is not the “middle class” who suffers but rather those living in poverty. All parties of the health care debate claim to want to make quality health care accessible to all Americans. Low-income Americans, however, are never specifically referred to, and instead brief references to “the middle-class” and other neutral terminologies are utilized to dodge the seemingly uncomfortable topic of inequality. The lack of acknowledgement on the issue of inequality in the health care debate is representative of how inequality is handled in the American political arena. Health care seems like an ideal vehicle for addressing inequality in America, but—predictably—inequality is avoided, as is the case in most political debates. This does not allow for an informed public debate on health care reform.

President Obama’s speech to the joint session of congress on September 9, 2009, outlining the health care reform plan constructed by the White House has been described as one of the most important speeches of his presidency. Obama began his speech with a statement that gives the impression that he would incorporate the issue of inequality in relation to health care reform. “Everyone understands the extraordinary hardships that are placed on the uninsured who live every day just one accident or illness away from bankruptcy,” he says. “These are not primarily people on welfare. These are middle-class Americans.” Evidently, he quickly dismisses inequality from his speech by ruling out the poor as a concern and by stressing that the middle class is most affected by the current state of health care. This dismissal of the poor and reference to the middle class allows the president to avert uneasy feelings from the public about who will benefit from this reform.

The term “middle class” encompasses such a wide range of the American public that in using this term, the president can convince a majority of the public that they will directly benefit from the White House’s plan. Using this technique allows the president to subtly allude to the fact that inequality may be a factor in the health care debate, but at the same time, dismissing the “people on welfare” prevents the discussion of a potentially difficult topic that could disrupt the reform process. In fact, this is the only place in the entire speech where the middle class is mentioned, and not surprisingly, welfare is not mentioned again. So while inequality may be very briefly touched upon, the idea is fleeting, diminished, and likely not even recognized by the public.

Not long after these statements, the president recalled anecdotal stories from citizens who have been adversely affected by the health care system:
“Another woman, from Texas, was about to get a double mastectomy when her insurance company canceled her policy because she forgot to declare a case of acne. By the time she had her insurance reinstated, her breast cancer had more than doubled in size.”

The president cites circumstances such as losing a job, the challenges of self-employment, and pre-existing conditions as reasons for not attaining adequate insurance coverage. Huge disparities in wealth and income are never referred to as causes for lack of health insurance coverage. In these instances, inequality is completely disregarded even though it is one of the key reasons why sufficient health care coverage is not attainable for so many Americans. The remainder of the speech carried on in this way, without any mention of inequality or its effect on health care. The president had a unique opportunity to bring this issue to the forefront of the health care debate (and subsequently to the American political stage) with his address to congress and the American public. Instead, inequality was skirted and pushed out of view, with other various issues cited as the core sources for health care reform. This tactic, however, is not exclusive to the president. Both proponents and critics of reform conceal the role of inequality in the health care debate with other issues.

The Democratic party’s website states that providing health insurance for all Americans would “end cost-shifting from the uninsured, promote prevention and wellness, stop insurance discrimination, help eliminate health care disparities, and achieve savings through competition, choice, innovation, and higher quality care.” This statement seems to address the underlying issue of inequality. While all of these outcomes, promoting prevention and wellness excluded, focus somewhat on inequality, ending cost-shifting from the uninsured and eliminating health care disparities appear to be the strongest cases. Citing these cases as problems resulting from the current health care system suggest that inequality is in fact an issue in America. However, this is as far as the explanation goes. While these problems stemming from inequality are mentioned as causes for the push for health care reform, they are never fully exposed, explained, or debated.

Speaker of the House Nancy Pelosi shares President Obama’s terminology for the goals of health care reform: “reducing health care costs, protecting and increasing consumers’ choices, and guaranteeing access to quality, affordable health care for all Americans.” These goals gloss over the issue of inequality that appeared to exist in the statement from the Democratic Party. Again, the goals are generalized, with no mention of how this would affect poor or low-income households. In crafting the benefits statement of health care reform to appear to support the majority, the disparities in wealth that underlie the need for reform are covered up, just as in President Obama’s speech. Speaker Pelosi, in a press conference about the America’s Affordable Health Choices Act (H.R. 3200) also claimed that, “This [bill] is so important to the middle class. You cannot be denied care for a pre-existing condition. If you change jobs, lose your job, or start a new business, you still have health care.” Pelosi seemed to be echoing the stance of the President by focusing her drive for reform on the middle class. In fact, the Speaker and the Chairmen of supporting committees stood in front of a backdrop that read, “The
Middle Class,” as they explained the benefits of H.R. 3200. These proponents of the Obama-endorsed health care reform plan are appealing to the middle class in order to pass the bill. Putting the middle class at the head of the health care debate keeps the issue of inequality hidden, suggesting that problems motivating health care reform do not stem from severe inequality in our society, but rather from unfair burdens on the middle class. This approach does not qualify as an informed debate on health care reform.

Instead of concealing the issue of inequality with a more comfortable discussion of the middle class, proponent commentators simply ignore the issue completely. Keith Olbermann of MSNBC has consistently advocated for health care reform. However, he has done so primarily by attacking the opponents of reform: “And tonight, a ‘Special Comment’ on the urgency of health care reform. On the millions spent to prevent it, on the Republicans getting those millions, and the Democrats getting those millions. Does this nation protect its corporations or its people?” In this segment and many others, Olbermann strikes against opponents of the proposed health care reform, claiming that they are paid off by the insurance industry to thwart any type of health care reform. He even calls them out by name, as he does in a segment about Senator John Thune (R-SD): “That’s a bald-faced lie, Senator. And you’re a bald-faced liar, whose bald face happens to be covered by your own health care plan run by government bureaucrats.” This pointless attack does nothing to facilitate a knowledgeable and healthy public debate about health care. Considering the media is where most of the public receives information on these issues of our government, coverage like this severely distorts the concerns of health care reform. Inequality in American society is not even implied, but is rather reduced to the gaps in wealth acquired by politicians from insurance companies instead of the disparities in income inherent in society that has caused the need for reform.

While the proponents of health care reform have circumvented the issue of inequality, their opponents have acted in the same fashion. In the Republican response to President Obama’s address to congress, Dr. Charles Boustany (R-LA) makes no implication of the issue of inequality. He instead explains the current need for health care reform as spurred by the state of the economy: “[F]amilies and small businesses are struggling through a jobless recovery, with more than 2.4 million private-sector jobs lost since February.” Using the present state of the economy as the push for the Republican health care reform largely sidesteps the inequality issues that have been growing in the system for decades. As was exhibited by the president and the proponents, the opponents to proposed health care reform have purposefully put inequality into the background, using more comfortable topics to advocate their plan.

The Republican plan makes more of a gesture toward inequality as the cause of health care reform than did their rebuttal to the president. However, this suggestion is still minimal. The plan states that it will “provide immediate substantial financial assistance, through new refundable and advanceable tax credits, to low- and modest-income Americans.” The idea that tax credits would have to be an option for certain Americans insinuates that there may be such severe inequality that even health care reform may not be able to help all Americans. Additionally, here we see the use of “modest-income” to
balance out the use of the term “low-income.” Pairing together low-income Americans with those whose income may not be quite so low allows the public to feel as though the poor are not being given a handout. This shields inequality from having to stand alone as a problem and from being forthrightly discussed.

Republican leaders against proposed health care reform have no mention whatsoever of inequality in their discussions, press releases, or speeches. Most only address the need to stop the Democratic plans for legislation due to increased spending, Medicare cuts for seniors, and a large government takeover of the health care system. As Minority Leader Senator Mitch McConnell states, “Americans wanted us to work together on reforms that improve the system we have. What they’re getting instead is a bill that creates an entirely different system in which government plays a bigger and bigger role in people’s health care decisions,” and “[i]t could force seniors off the plans they have with nearly $140 billion in cuts to one popular Medicare plan.”10 The push to stop the Democrats’ plan has derailed the debate from the core issues that brought reform to the table. Inequality is not even alluded to in opponents’ cries to slow down and create a more bipartisan plan. Instead, inequality is left out, and once again a well-informed, well-rounded public debate is not fostered.

Opponent commentators also take to attacking the proponents. Republican political commentator and outspoken opponent of Democratic health care reform Glenn Beck subtly compared President Obama to Hitler in a segment on health care: “You know, we’ve said about the idea that, you know, it all starts out really well and this then goes awry. Germany went awry because of a couple of things. First, money — they ran out of money so they’ve got to make choices, tough choices. And then, crazy people.”11 Segments like this one seem to be Beck’s method of choice for arguing against health care reform. The media (as also seen with supporters) seemingly focuses on shock value, sound bites, and network competition, and it has not aided the American public in the education of the core issues surround health care. Just as the advocates have, the critics are not merely covering up the issue of inequality; they are citing other issues not even related to inequality as the frontrunners for debate. Inequality is absent, and as a result, the public remains uninformed and therefore misinformed.

The president, Democrats, Republicans, advocates, and critics all have a unique opportunity to bring to light the deeper, ingrained issues of society that brought about the need for health care reform. Nonetheless, they have dismissed this opportunity. The deep-seated inequality of our society is either hidden or ignored. Certain politicians appear to recognize this topic as a difficult one for most people even though the severity of the issue has significant consequences for health care reform. In order to avoid unwanted public criticism on a discussion of inequality, some politicians—including President Obama—choose to obscure inequality with more comfortable terms such as the “middle class” or “modest-income Americans.” The “poor,” “disparities in wealth,” and other frank terms are avoided. Obama and other leaders in health care reform should focus their efforts away from a broad middle class, which is indefinable, and move towards being frank about the idea that many poor people are in desperate need of a resolution.
On the other hand, there are those who choose to entirely disregard inequality in their debates about health care. This normally stems from the fact that these politicians are focused on tactics to stop or stall the reform that has been introduced. Instead of returning to the root of the problem to gain bipartisanship and well-informed discussion on what type of reform needs to be put in place, inequality is cast aside, and as a result, the impact the issue has had on health care is forgotten.

Commentators on both sides foster the most ignorance of the issue of inequality. The media should be a medium in which the public receives the needed information to make educated decisions about health care reform. Instead, the media has resorted to attacking specific players in the health care debate, reducing the discussion to the people involved instead of the issues involved. Therefore, the public is not informed on the health care debate—they are misled.

These findings about how the issue of inequality is not addressed in the health care debate show how the issue is dealt with in American politics in general and the methods that are used to keep it off the table. Health care is the ideal stage for a serious discussion about inequality because of the role the income gap has played in creating the need for reform. Consequently, the question becomes: if inequality cannot be tackled in an arena where it is most relevant, how can inequality ever be discussed in American politics? The answer is evident: the issue of inequality will likely remain silent.
Endnotes


2. Ibid.


7. Ibid.


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by Julia Napolitano
Introduction

When pop music sensation Mika appeared in July 2007 on the cover of *Out* magazine beneath the headline “Gay/Post-gay/Not gay?,” readers were beside themselves asking, “No, but really, what is he?” As one gay blogger put it, “He’s back again to tell us how positively boring it is to speak freely about one’s sexuality…. Mika, I don’t care if you’re gay, and neither do the people who enjoy your music, I’m sure. But I really am not interested in playing peek-a-boo with you while you try to sell me your record.”1 It was as if Mika could only be taken seriously if he set the record straight (even if his sexuality wasn’t). So when the singer made an earnest attempt to dispel all the hype by saying, “Anyone can label me, but I’m not willing to label myself …. Call me whatever you want. Call me bisexual, if you need a term for me.” The world jumped on that final assertion. When one does an internet search for “Mika gay,” the number of publications whose title includes the stand-alone snippet “Call me bisexual” is astounding.2 Even terms such as “ambisexual” and “gaybe” were more satisfying to the public than no label at all. But now that fans had a new word to appease them, what was the difference?

This situation illustrates our society’s collective obsession with finding stability in our identities and our unfailing use of language to do so. Our insistence on “knowing” is rooted in the Western tradition of truth-seeking, believing that there are final answers to be found, concrete explanations to be made, and a stable nature to be revealed that upholds our existence. Language, then, is what we use to talk about these truths.3 Being able to describe ourselves using words legitimizes us in the eyes of society; our declaration of “what we are” is a testament to our having an underlying “true self” that is absolute, innate, and unchanging. Having such a fixed and certain nature is perceived as key to one’s personal success.

Sexuality, as described by French philosopher Michel Foucault in the first volume of his anthology *The History of Sexuality*, is a central point of focus in capitalistic society because it joins the idea of an individual reproductive body to that of a collective socioeconomic-political body whose goal is production.4 In other words, sexual acts that do not revolve around this idea of (re)production therefore pose a problem in Western thought. The focus of this paper is not on what sexuality means or what its purpose should be; instead, it is a look at how society attempts to rationalize such variations in human sexuality, how this rationalization in turn affects the manifestation of these variations, and what some of the consequences of this quest are.

Where the murky waters between naming what is and what actually is meet, people conflate the two as a way of coping with the fact that understanding why things, like sexuality, are the way they are is a decidedly difficult task. The next part of this paper will examine some common essentialist theories that attempt to explain the “cause” of non-heterosexual attraction or behavior. (Most of these discussions have been formulated
around sexualities that go against perceived “heterosexual” norms; however, the approach proposed in this paper can and should be applied to sexuality as a whole. As we will consider later, this framework exposes the instability of even the most valued presuppositions of heteronormativity.) Relying solely on biology and science is crucial to those who trust in stable and “knowable” manners of existing. In contrast, the third section of this paper will consider a social-constructionist viewpoint, which holds that sexuality, for example, is culturally bound and formed exclusively as a result of environmental and social factors. The problem of naming (also referred to here as “labeling”) is relevant in a couple of ways. Language is a tool employed by both of these schools of thought to talk about (and thus defend) “kinds of people” and ways of classifying people by sexual categories. This is surely of greatest concern for essentialists, who follow the Western tenant that there are true realities to be found in nature, and that these true and fixed realities may therefore be described in absolute language. However, steadfast social constructionists who object to this categorical conceptualization and explanation by pointing out the profound effect that society can have on someone’s understanding and consequent representation of oneself and who go as far as to explore the arbitrary nature of language may also be missing the boat in their account of how one’s sexuality comes to be at any given moment. In the fourth section of this paper, bisexuality is argued to be a site where this messy conflict between essentialist thought, social constructionism, and the pitfalls of language is most apparent. The effect of language on the formation, representation, and understanding of sexuality is an example of social constructionism, challenging the authority of “scientific knowledge” and the assertion that sexuality is something definite (both innate and unchanging) and therefore describable by an exactly corresponding word. Additionally, empirical evidence does suggest that sexuality may be partially tied to our genetics, and the vast number of people who can claim a definite affinity towards a specific sex cannot be ignored.

Using the phenomenon of naming as the primary evidence, this paper will make the case for an interactionist theory of sexuality that accounts for both biological and cultural factors and which is comfortable leaving some questions up for debate. After all, it is impossible to feel, think, and act the same as the other six billion people in this diverse world, and making generalizations—no matter how flexible or accommodating—can be detrimental if taken absolutely. The final part of this paper will address why it is important to approach studies of sexuality from an interactionist perspective and how we may encourage this alternative thinking among the rest of society.

Essentialist theories of sexuality

The word “homosexuality” (German homosexualität) first appeared publicly in 1868 when Karl Maria Kertbeny, a German journalist, wrote to German sexologist Karl Heinrich Ulrichs advocating for the repeal of Prussian anti-sodomy laws. He contrasted this to Normalsexualität, sexuality which involves the opposite sex. Why there was a newfound interest in and recognition of same-sex sexuality (sexuality is defined here as
sexual desires, behavior, and inclinations) is not clear, though it was in the late nineteenth century that capitalism emerged in response to worldwide industrialization (recall Foucault’s argument that sexuality is the pinnacle of such a system). Germany specifically saw a series of constitutional reforms and arguments against capitalism with the rise of Marxism. Additionally, Mendel’s studies of genetics were introduced during this time. Whatever the reason, authority figures, especially those in the medical profession, began to look more closely at this so-called “homosexuality.” A few years prior to Kertbeny’s letter, Ulrichs had described the Victorian-based notions of the “True Man” and the “True Woman” in opposition to the “Non-True Man” and the “Non-True Woman.” The latter were viewed as two additional variations of the sexes, the former being someone with a male body and the female’s sex-love for a male, and the latter a female-bodied person with a male’s sex-love for females. This concept of the “true” did two things. First, it reinforced the idea that opposite-sex love (the “true”) was normal, whereas same-sex love (the “non-true”) was a deviation from the norm, but not inferior or problematic. Secondly, it suggested that the roots of this “homosexuality,” like those of “normal sexuality,” were innate. As Katz writes, “The Victorian concept of ‘true’, applied to men, women, and love, linked sex-biology with sex-psychology, so that feelings were thought of as female or male in exactly the same sense as penis or clitoris: anatomy equalled psychology.”

Forty years later, the American writer Edward Prime Stevenson published The Intersexes: A History of Similisexualism as a Problem in Social Life. In it he argues that homosexuality is not an anomaly or a medical, legal, or social problem. He states that “[it is] the nonhomosexual who must change to accommodate a natural manifestation of human affection.” Yet like Kertbeny and Ulrichs, Stevens assumes an essentialist explanation for this different “manifestation.” Although he makes a groundbreaking point that one’s physical sex does not necessarily correspond to one’s “sex-love” (in other words, their sexual orientation), he still states that “[sexuality] is determined by the sexual instinct: by desire physical and psychical of one human being for another.”

As time went on, those who defended same-sex sexuality considered whether or not an essentialist argument would help their cause; many did believe that by proving one’s sexuality as something that cannot be changed, they would be more easily forgiven and accepted by society. As Matt Ridley writes in his book Nature via Nurture, “most homosexuals welcomed the news in the mid-1990s that their sexual orientation looked ‘biological.’ They wanted it to be a destiny, not a choice, because that would undermine the argument of homophobes that it was a choice and therefore morally questionable. How could it be wrong if it was innate?” Earlier he states his understanding that “it has long been clear from the experiences of homosexual people that human sexual preferences are not only difficult to change but also fixed from a very early age. Nobody in science now believes that sexual orientation is caused by events in adolescence,” as was suggested by Freud.

Several studies were conducted around this time that claimed to show different personalities between heterosexuals and homosexuals in childhood; that brain anatomy
differed between homosexual and heterosexual men; and that homosexuality runs in families, most notably as it is shared among twins. He concludes that paragraph saying, “Homosexuality is an early, probably prenatal, and irreversible preference. Adolescence simply throws fuel on the fire.”

Judging from Ridley’s heterosexual and essentialist-leaning point of reference (he never asks, “What is heterosexuality?”), we are inclined to take a cautious approach in the so-called “scientific” data that is to come. In their book Methods, Sex, and Madness, O’Connell-Davidson and Layder make the case for a relativist lens (which accepts that objective knowledge is unattainable) by asking, “If science draws on society’s stock of taken-for-granted knowledge about the world to define its research agenda and to classify and interpret its observations, how does scientific knowledge feed back into everyday thinking?” The implications of this will be revisited in part four.

Ridley uses Ray Blanchard’s theory of fraternal birth order as his primary example of biologically-based “causes of homosexuality.” The study showed that gay-identified males were more likely to have older brothers, and that the more older brothers a male had, the likeliness of his “being homosexual” increased three-fold. Furthermore, homosexual men had on average lower birth weights. The sample size of Blanchard’s research is not provided.

Another commonly-cited study was conducted in 1991 and 1993 (Bailey and Pillard) that 52 percent of the time, when one male was gay, his identical twin was also gay. This figure was 22 percent for fraternal male twins. In females, identical twins were both gay 48 percent of the time, and fraternal twins 16 percent. Again, the sample size is unknown. The evidence of a genetic cause is clear, but there must be other factors if the concordance rate is not 100 percent. Other studies also looked at prenatal hormonal factors, but these were less established.

The 1991 LeVay study focused on brain structure as a possible explanation for different sexualities. The results showed one section of the brain, the anterior hypothalamus, to be smaller on average for homosexual males. Gorski and Allen (1992) also showed size difference in a part of the brain that connects the right and left sides: it was largest in gay males, second largest in females, and smallest in heterosexual males. Yet the sample sizes for both of these studies were small. Van Wormer also notes that when asked, gay males tend to attribute their sexuality to biological factors, whereas gay females are more likely to cite environmental factors (women, however, are largely underrepresented in these studies). This is perhaps because gay females more often see themselves as lesbians, a more solidly identity-based term than “gay man” that often has political connotations. As one woman put it, “My choice of lesbianism is a source of considerable pride and sense of achievement and not something I wish to relegate to biology.” Whether or not her talk of lesbianism as a choice is because she’s referring to an identity label and not necessarily her sexuality is related to the topic of language use in part four.
Social constructionist theories of sexuality

Arguments that sexuality is an entirely social/cultural/environmental concept (which include the claim that “being gay is a choice”) are at best supported by pervasive discourses, sometimes used by social conservatives and the religious right. These people may attempt to “treat” a person through therapy in order to change his/her/hir ways. On the other hand, some people rationalize, condemn, and “treat” homosexuality as something that is biological. Reparative therapy, although denounced by the American Psychological Association as ineffective and discriminatory, aims to change one’s innate sexual affinity. Does this, however, support the theory that biology and society interact? It is important to clarify a few things here: first, we must be careful to not conflate identity with sexuality. Recalling the quote from Van Wormer’s work in which a woman called her lesbianism a choice, the language used to describe the behaviors or perceptions of oneself or of others is undoubtedly a choice: For example, Mika did not simply choose his sexuality (which includes his sexual attraction). He did, however, choose not to adopt a label to describe his sexuality. The issue at hand is that an ambiguous identity—that of someone who chooses not to label his-/her-/hirself—poses a problem for a population whose mental inventory of possible names for varying sexualities is seriously limited with respect to the much richer reality of sexuality.

Sagarin conducted a study in 1976 that suggested homosexuality could potentially be acquired under certain social conditions. The setting in question was the prison, where homosociality is the situation by default and where many men and women who previously identified as heterosexual “turn out”: that is, resort to same-sex sexual activity and longing. The argument could be made that these individuals were simply resorting to “the next best thing” in the absence of heterosexual sexual gratification. A counter-argument could be that only in these circumstances did an individual happen to realize this “true” part of his-/her-/hirself, and that not all prisoners find that this “turning-out” process applies to them. Taking both arguments into consideration, the question arises whether there is “real” homosexuality as opposed to a situational, or non-genuine, homosexuality. Here we enter the blurred boundaries of what is absolute and what is contrived, and find ourselves frustrated because we have found something that we cannot easily explain using the standard oppositional tools offered to us (that is, essentialism or social constructionism).

When first learning about these two principal schools of thought, one is apt to formulate an unfavorable opinion about one school and expect that in moving on to the next they will find the better argument. Instead, we see that an essentialist viewpoint lacks “perfect” science to support it, nor does it account for the possibility that an individual’s behavior and desires (their supposedly “true self”) may shift over time, and that this experience is different from one person to the next. Conversely, we also see that owing sexuality to a viewpoint that puts environmental influences and self-will on a pedestal can have dangerous ramifications. The conclusion we can draw is that neither an essentialist nor a social constructionist reasoning can fully account for the complex phenomenon of
sexual diversity.

The Twilight Zone: A look at bisexuality and an alternative approach to navigating the problematic

When the Mika blogger summed up his piece by saying, “While we’re on the subject, what the hell is ‘Post-Gay’ anyway? Is that some fabulous new cereal? I wasn’t aware that your sexuality was something that you could (or would want to) ‘move past’,” he reveals the height of his misunderstanding. He was equating language (proclaimed identity) with sexuality by concluding that because Mika resisted a label such as “gay,” he therefore resisted his non-heterosexuality. “Post-gay” is a term born out of post-structuralist thought that draws attention to the inexact correspondence between reality and the way we signify it. Through the institutionalized use of terms such as “man,” “woman,” “gay,” etc., society has naturalized these categories of understanding to the point of seeking them in nature, rather than making an effort to put aside common-sense expectations of what is to be found (such as believing that a female anatomy will dictate a set of characteristics that all fall into the category of “woman”) in order to more objectively examine the world. It is through the process of naming that we essentialize sexuality. We use words that come to be understood as absolute and perfectly equipped to describe biological realities, yet we fail to see the effect these words may have on our interpretation and representation of such realities.

Foucault articulated this phenomenon as “reverse discourse,” noting how people under pressure to defend their sexual legitimacy may adopt language (often which was introduced by their oppressors) as a means of explaining themselves and appearing solid in their arguments. “The appearance of psychiatry, jurisprudence, and literature on a whole series of discourses on the species and subspecies of homosexuality,” Foucault writes, “made possible the formation of a ‘reverse’ discourse: homosexuality began to speak in its own behalf, to demand that its legitimacy or ‘naturality’ be acknowledged, often in the same vocabulary, using the same categories by which it was medically disqualified.” “Legitimacy” is equated with “naturality;” “naturality” suggests something that is predetermined, stable, and essential. These were the foundations for the perception that sexuality is something describable; it was a very scary thing if society could not verbally define that which held together their socio-economic/political system, just as it is scary for anyone raised in the Western tradition of truth-seeking to fail at getting to the bottom of some phenomenon, which is validated by having terminology appropriated to it. People strive to fit into these terms, both in their self-proclaimed identity and self-expression, in order to prove their self-certainty and to defend their sexuality.

Several others have since described the notion that language can have an interactive relationship with that which it describes. David Halperin clarifies the frequently-cited but under-emphasized assertion that “homosexuality didn’t exist in ancient Greece” by explaining that “heterosexuality’ and ‘homosexuality’ do not properly name eternal aspects of the human psyche but represent, instead, a distinctively modern cultural
Likewise, Ian Hacking in his article “Making Up People” writes, “Social change creates new categories of people... people spontaneously come to fit their categories.” He goes on to reference other works that elaborate on this notion.

Hacking coins the term “dynamic nominalism” as a way of reconciling realist thought with nominalist thought. The realist errs on the side of essentialism by saying that despite the “entirely non-objective and culturally ordained” nature of our attitudes toward gender and sexuality, “gender itself is a real distinction,” and the raw, underlying realities we are describing do exist qualitatively (an acknowledgment of relativism). The nominalist, on the other hand, assumes a social-constructionist viewpoint that naming alone can constitute the entity. Dynamic nominalism suggests that a reality and the way we describe it is mutually constructive process. While there are some tangible realities that have a nearly exact correspondence between the object itself and what humans call it—a water bottle, for example, is something humans literally created and for which they thus created a word—intangible concepts like sexuality are not so clear when it comes to the language surrounding them. This theory holds that sexuality is natural, inherent, and created and shaped over time by our society. Once society becomes conscious of an underlying phenomenon (such as same-sex desire), people give it a name and quickly attach specific notions to it and create often-unspoken rules that qualify someone or something to be included in this group. The concretization of “homosexuality” as something “real” allowed the identity term “gay” to become naturalized, and thus conflated, with absolute sexuality.

Hacking goes further by questioning the consequences of dynamic nominalism: “Is making up people intimately linked to control?” Postmodern French philosopher Jacques Derrida built upon Ferdinand de Saussure’s rejection of structuralism when he exposed it as a site of oppression and social control. Riki Wilchins summarizes his argument: “Gender is a language, a system of meanings and symbols, along with the rules, privileges, and punishments pertaining to their use—for power and sexuality (masculinity and femininity, strength and vulnerability, action and passivity, dominance and weakness).”

O’Connell-Davidson and Layder address this problem in which people naturalize terminology and conduct “scientific” research within these boundaries, thereby influencing their observations (and making them increasingly subjective) to reflect society’s beliefs and systems of understanding. This perpetuates a cycle wherein this supposedly empirical knowledge feeds back into everyday thinking, permitting ourselves to be informed by science when really, we are the ones informing science. This is an oppressive cycle because it provides an excuse for various forms of sexual subordination and hierarchal categorization of human beings based on their sexuality. Approaching our studies from a more physiological standpoint (one that is not purely biological but also environmentally-bound) “can be used to promote greater equality.” Both Joan Scott (“Gender: A Useful Category of Historical Analysis”) and Gayle Rubin (“The Traffic in Women: Notes on the ‘Political Economy’ of Sex”) comment on how language came to be a force that “maintained the social order” of women over the years.

Through all of these examples, we’ve seen how language is a catalyst for the
mutually responsive relationship between that which “is” and our social ways of dealing with it. Although a social-constructionist act itself, the process of naming as described relies on a certain degree of essentialist material: the language and creation of labels is in response to something we can validate at least partially given empirical evidence. It is unquestionable that people feel and think in specific ways, and yet when it comes to describing these feelings and thoughts, the words we come up with and then are stuck with may be pushing us to tweak our definitions of what’s going on internally so that we stand a better chance of making ourselves understood, and therefore visible and respected. This phenomenon of dynamic nominalism parallels a much broader interactionist/biocultural/biopsychosocial theory of human development.

Labels can’t be entirely bad—they do serve at the root of identity politics as a commonality around which people can mobilize. Wilchins acknowledges postmodernism’s shortcoming in being “suspicious of community” and finding itself “unable to propose any notion of group action that is positive and rewarding.”\(^35\) The key is to approach these politics with caution and learn to take labels with a grain of salt.

As shown, this is not something that comes easily to our truth-obsessed society. Yet the alternative of forcing labels on abstract concepts like sexuality does not always sit that much better. “Bisexuality” is often used as a “garbage category” in which we classify people and behavior that we’re just not sure about. The realm of bisexuality poses perhaps more anxiety than even concrete sites of “homosexuality.” It threatens to unravel several assumptions that uphold society’s generalized view of sexuality as a whole. It challenges those absolute (nevertheless controversial) sites of “the man,” “the woman,” “the homosexual,” “the gay man,” “the lesbian woman,” and “the heterosexual” by its incongruence between identity and behavior; its more “fluid” nature; and its ambiguous connotations (even “Call me bisexual” wasn’t enough for Mika fans like Juergen). The incongruence between a bisexual identity and the bisexual’s behavior is best explained through a discussion of monosexism. Citing Horowitz and Newcomb, Eliason and Schope write:

> “Bisexual identities challenge the foundation of gay and lesbian identities on the sex/gender of the sexual partner, creating anxiety in lesbian and gay communities. How does bisexuality, having a physical attraction to, or choosing sexual or romantic partners on the basis of some characteristic other than their sex/gender, disrupt monosexist identities that are firmly defied by the sex/gender of partners? […] [S]tage theories are unable to accommodate the flexibility of bisexual identity.”\(^36\)

Ki Namaste in her article “The Everyday Bisexual as Problematic: Research Methods Beyond Monosexism” writes, “The metaphor of the fence describes this precarious situation: bisexuals are accused of fence-sitting in an attempt to claim the best of both heterosexual and gay/lesbian lifestyles.”\(^37\) (Notice that Namaste herself conflates identity with sexuality by saying “heterosexual” but then “gay/lesbian.”) She goes on to say that “Bisexuality is thus lived and experienced within gay/lesbian communities, or entirely outside of them.”\(^38\) She quotes Hutchins and Ka’arahumanu, who say, “Heterosexuality needs homosexuality to be reassured that it is different. It also needs the illusion of di-
chotomy between the orientations to maintain an idea of a fence.” Because bisexuality challenges monosexism (exclusive heterosexuality or homosexuality) and monosexism challenges heterosexuality, it is perceived as a great threat in a heteronormative society. It blurs the distinct separation between the “straight” and the “gay” and brings categories uncomfortably close to one another. If behavior is either heterosexual or homosexual, then why do we need the term “bisexual”? Obviously, these people are one or the other, even if they are heterosexual one moment and homosexual the next.

Obviously not. As an increasing number of people claim fluidity in their sexuality, they adopt the best label out there: bisexuality. But how do we account for such a wide variety of self-descriptions, accounts, behaviors, and personalities? This ambiguous zone again strikes at the core of the Western realist’s quest to explain. But perhaps the solution is not to try and further articulate bisexuality (the linguistic identity or the psyche of those who exhibit “its” behaviors) or any sexuality; rather, it is to question the not-so-stable notions it rests upon and accept the fact that one can never step inside the mind of another being and experience what they are experiencing.

Bisexuality would perhaps be received with more compassion if we achieved a widely accepted theory of biocultural development. Just as sexualities and the words used to describe them are not absolute, behavior, desire, and self-perception/self-representation does not necessarily stay fixed throughout one’s life. We talk about finding a “true self” but fail to consider the possibility that we are constantly finding our “true self” throughout life, there’s no stopping point. If our society confronts its fear of the unfixed and the partially unknown, it will find itself less bothered by the disjunction between labels, “science,” and common thought, as well as the much richer reality of human diversity. This is the first step in promoting greater equality in our world.

Anne Fausto-Sterling proposes her biocultural approach when she lays out three basic principles in her article “Gender Systems: Toward a Theory of Human Sexuality:” First, nature/nurture is indivisible. Second, organisms—human and otherwise—are active processes, moving targets, from fertilization until death. Third, no single academic or clinical discipline provides us with the true or best way to understand human sexuality.

She describes how an individual may be predisposed to think, feel, or act in a certain way. For example, there is probably something innate (essential) in us from birth that will cause us to tend toward a certain kind of body or certain personalities/psyches. This may or may not be along the lines of sex and gender, and keep in mind that “gender” as a categorization based on personality and social traits is not something science can easily explain. As we grow up, we will encounter various settings and environmental factors that will interact with our internal makeup, either by bringing out certain traits or suppressing them (this is social constructionism). This mutually interactive process continues on forever, the organisms response to the world around it and the world gently guiding the organism into different settings of this world. The case of “the bisexual” could be rationalized using this model in saying that the individual is predisposed to feel affinity (whether it be physical, emotional, some combination of the two—it varies for
each person) to some specific “type” of person, a particular sexed/gendered body, but the manifestation of these inclinations is dependent upon the social context in which the individual finds his-/her-/hirsself.

Eliason and Schope praise this biocultural theory—hereon referred to as inter-actionist—noting that “most of the linear stage models today are based on the assumption of an essential sexual orientation, but moving through the stages is predicated on responses from the social and cultural environment.” Their recognition that sexual development is a “highly individual process” is crucial to social work’s commitment to open-mindedness. Van Wormer, et. al., agree:

“The safest conclusion we can draw at this time is to say that a combination of biological predisposition and sex-related socialization experiences determines a person’s sexual orientation .... The situation, in short, is not nature or nurture, but nature and nurture. The biopsycosocial formulation of social work provides a fit that is probably as good as any for explaining sexual orientation.”

By loosening our grip on labels and abandoning an insistence on a definite either/or explanation for something as complex as sexuality paves the way toward greater equality and greater freedom to live as one wants. Mika said, “[If] you’re not sure about your sexuality, you should be as free as you want.”

What next? Suggestions for implementing an interactionist framework

Considering the fact that the establishment of the concepts critiqued throughout this paper has been finely tuned over the course of several generations, it’s true that an overhaul of the rigid manner in which society conceptualizes sexuality requires a widespread effort that focuses on multiple institutional, educational, political, and cultural sites. To start, a campaign to lift the requirement of gender and sex designation in all legal, administrative, and pop-cultural documents and forms would help to de-emphasize the importance of sex/gender categories upon which rely the monosexist, rigid conceptions that make sexuality such a source of frustration for a large part of society. This perceived frustration discourages individuals from openly discussing their sexuality and may foster internalized homophobia.

A general insistence on the cross-examination of all sexualities is also a way to show that variations in human sexuality are normal. For example, instead of posing the question, “What causes homosexuality?” we can phrase it as “What are the factors contributing to the formation of sexuality?” Understanding that sexuality is complex (arguing an interactionist/biocultural/biopsychosocial approach), accepting that there is no one answer, and seeing that sexuality is not fixed even within one individual’s life and thus that labels are incomplete and may actually serve to overcomplicate our understandings of ourselves and others, is a step towards promoting a more open-minded society. If social workers, educators, parents, and the general public entertain this idea, individuals whose sexualities do not reflect long-valued heteronormative ideals will be in a better position to live healthier, happier, and more productive lives.
Endnotes

7. Ibid.
8. Ibid.
10. Ibid.
11. Ibid., 361.
13. Ibid., 159.
18. Ibid.
19. Ibid.
20. Ibid.
25. Ibid.


29. Susan Stryker, “Making People Up: The ‘Categorical Imperative’” (lecture, Indiana University, Bloomington, IN, September 29, 2009).


44. “Mika in Gay&Night.”
Julia Napolitano credits her Gender Studies major, in particular the course “Gay Histories, Queer Cultures,” for solidifying her interest in political activism and highlighting the connections between her academic career, personal life, and extracurricular experience. A junior also majoring in French and Linguistics, she intends to work for a non-profit organization after graduation. When not plotting schemes with her friends at home in upstate New York or being wacky with her friends here, Julia enjoys going to garage sales, cooking, taking pictures, and talking to animals.
Rose-Tinted Glasses: The Consequences of Enacting Optimism to Fight Breast Cancer

by Jenna Blumenfeld
Walk into any Target, Walmart, or grocery store during the month of October and something strange will be going on. Although the variety of products to purchase is as diverse as any other time of year, there is a thread of continuity running through the thousands of clothing, food, and leisure items on display. If one looks closely at goods such as Motts Apple Juice, Lean Cuisine, and New Balance Shoes or investigates companies such as Carnival Cruises, True Religion Jeans, and Ford Automobiles, there will be an emblem that means so much to so many: a small pink ribbon, looped once around, symbolizing support for the breast cancer movement. Seemingly distant and separate companies are inexplicitly woven together through their support of the pink ribbon cause, a movement that has grown immensely popular, especially in the last ten years.

Bolstering the corporate sponsorship for breast cancer funding is the highly effective and successful Race for the Cure, a marathon run by the Susan G. Komen for the Cure organization. Due to the millions of dollars the marathon raises, many individuals view the Race as a pristine and valuable event to American and global society. Despite its important fundraising capabilities, there are still larger cultural issues to discuss and numerous ethical questions to answer regarding the marathon. While it may seem counterproductive to the breast cancer movement to argue against some of the tactics Susan G. Komen for the Cure chooses, the result of researching the organization will bring a more nuanced understanding of all who have been affected by breast cancer. The “tyranny of cheerfulness” at charity marathons, such as the Susan G. Komen for the Cure’s Race for the Cure, is a tactic that dilutes the physical and emotional hardships of breast cancer in the public arena by alienating patients, survivors, and family members holding resentment toward the disease.

Susan G. Komen for the Cure founder, Nancy G. Brinker, was devastated when her sister Susan succumbed to breast cancer twenty-seven years ago. Susan was only thirty-three years old when doctors diagnosed a small lump in her breast as cancer. Despite aggressive treatment and a difficult three years, doctors were unable to prevent the cancer from spreading to the vital organs in her body. In an effort to prevent other women from experiencing the horrors of breast cancer as her sister did, Brinker established the Susan G. Komen Foundation, later changed to Susan G. Komen for the Cure, that aimed to educate, fundraise, and create awareness of breast cancer research and treatments. Now the leading organization in the breast cancer movement, the non-profit has risen to global popularity. *USA Today* reports, “The Dallas-based organization has 200 employees, more than 100,000 active volunteers and 125 affiliates. Its annual Race for the Cure has grown from 800 women who ran for charity in Dallas to about 1.5 million participants in 120 races worldwide. The foundation has funded work in more than 47 countries.” Due to the enormous number of corporate sponsorships, private supporters, and participants in fundraising events and marathons, Susan G. Komen for the Cure has secured its place as “the world’s largest source of nonprofit funds for breast cancer—and in the U.S., it is second
only to the federal government."

Though there are thousands of Race for the Cure events, there is a tremendous repetitiveness among the marathons in different locations around the United States. Consequently, the ways in which they are conducted are not unlike a play that would appear in a theater. This rigidity of sameness in the Race is successful in chiseling out the single, required emotion of optimism that dominates the event. The homogeneity of participants, who can be seen as actors when viewed through the lens of charity events as public performances, are so incredibly similar that it becomes difficult to isolate an individual from the crowd. For example, in footage from the Race, the majority of participants are middle-aged white women dressed in a costume of pink and white. While young people as well as seniors are seen strewn amongst the crowd, the large majority of participants appear to be aged between forty and sixty-five. Decked out in shirts, hats, sashes, and other rosy-tinted accessories, it seems as though a blanket of upper-middle class white femininity wraps any Race for the Cure host city in a flurry of merriment. When viewing photographs like the ones papering the Susan G. Komen website, it seems likely that if individuals were to abstain from wearing the ubiquitous pink ribbon logo, they would stand out as imposters in the numerous ritual-like ceremonies that take place.

Indeed, there are multiple highly choreographed ceremonies that occur during Race for the Cure events. In 1999, during the tenth anniversary of the National Race for the Cure held in Washington, D.C., Samantha King, author of *Pink Ribbons, Inc.: Breast Cancer and the Politics of Philanthropy*, describes no less than six codified rituals: the Sunrise Survivor Celebration, the Ten-Star Salute to Survivors Parade, a Pre-Race Rally, a recitation of the Pledge of Allegiance, the race itself, and a Post-Race Rally. Each section of the event has a specific goal, all of which focus on celebrating survivors, fostering hope, and spreading good cheer. While there are moments of silence for those who have died from the disease, there certainly is no ceremony for anger.

The absolute uniformity found at Race for the Cure marathons also extends to the physical shaping of the event space. The Race area is decorated, much like a set for a theatrical production, in order to frame the event in a rosy glow. Gigantic arcs of pink balloons are common structures, used both as a gateway for survivors to walk through and to signify the start of the race. Stages are erected with large pink panels, always emblazoned with the logos of the numerous corporate sponsors integral to funding the event. Larger Race for the Cures, such as the Global Race held annually in Washington, D.C., go so far as to construct full concert stages, where celebrities perform or give speeches. These larger races are such spectacles that they may even be considered travel destinations for those looking for entertainment, as outlined in a *USA Today* article, “10 Great Places to Race for a Cancer Cure.”

Despite the variation in size, the similarities between all Race for the Cure marathons are impossible to ignore. Accordingly, King goes so far as to describe the Race in marketing terms: as a brand. “The Race, in other words, has become a familiar and reliable brand, and its success is such that numerous corporations and foundations have attempted to reproduce the formula to raise money for their chosen causes.”
the Race does have its own trademark, the implications behind the brand image extend farther than manifesting a steady, safe charity for corporations to invest in. It ultimately excludes those that do not fit the Race brand mold from participating, or at the very worst, indicates that those who are not costumed in pink are not worthy of holding the “survivor” label.

Joan Blumenfeld is one of these survivors. She was diagnosed with breast cancer five years ago, and because it was caught early, she was spared the side effects of chemotherapy, attending daily radiation treatments instead. Paired with prescriptions of Tamoxifen, the cancer was eradicated until last year, when she was told it had returned. After undergoing a mastectomy, she has been cancer-free since then. Despite the obvious emotional and downright scariness of having a disease that kills forty thousand women per year, she was unique, (at least in the public eye), because of how she handled living with cancer.11

Unlike the meaning derived from Race for the Cure events, which feature whole-hearted proclamations that participants had breast cancer, Blumenfeld was wary about telling anyone aside from her very closest friends that she was dealing with the disease. She would identify with most other women who are a part of Race for the Cure because she is in a similar demographic: white, upper-middle class, and middle-aged. As a result, when viewed as a matter of variables and constants, as in sociological experiments, Blumenfeld should have wanted to participate in the events. But though she was asked to become involved in a Race for the Cure marathon, she politely declined. She indicates several reasons behind this decision. She claimed, “I never felt compelled to run. I would support someone and give money to their team, but because my surgery was in October, it just seemed too much a reminder of what I had to go through.”12 So it seems that for Blumenfeld the happiness and inspiration so many receive through Race for the Cure marathons only served to exacerbate the medical issues with which she was already dealing.

King explains that in the early 1990s, the concern of cancer activism was for breast cancer patients as a group to gain political power for “women’s health and rights.” She continues, “The focus was not, as it is now, on the individual breast cancer patient and her participation in uplifting and profit generating activities to fund high-stakes medical research to the virtual exclusion of other considerations.”13 While King is writing in reference to social issues, her discussion on the individual versus the group is strange. She argues that while breast cancer activism used to be centered on breast cancer patients as a group, it is now pinpointed on the individual. But after weighing the available evidence concerning Race for the Cure events, it seems as though the individual is lost in a sea of “pink ribbon perkiness.”14

Blumenfeld, for example, rejected breast cancer marathons because she did not feel the gratefulness about having the disease that other women expressed. In her New York Times article “Thriving After Life’s Bum Rap,” Jane Brody writes, “I have met and read about countless people who, having faced life-threatening illness, end up happier, better able to appreciate the good things and people in their lives, more willing to take the time to smell the roses.”15 In contrast, Blumenfeld passionately stated, “I was not fine
that I had cancer and I am not a better person because of it. I would never wish this on anybody and I was sad and angry that I had to go through it, risking passing the gene onto my children. These marathons make people think everything is rosy and wonderful and women who put on a happy face are doing a disservice to others who don’t feel that way. People have to see that it’s okay to be angry.”  

The words Blumenfeld speaks are powerful when placed in the context of the individual versus the group discussion because her sentiments about cancer clearly do not align with the cheery message pushed by Race for the Cure marathons. This sentiment indicates that the Race, like King argues, fails to address all of the emotions that occur with breast cancer treatment. In fact, the only one it does employ is happiness. However, in Breast Cancer Inc., little is said about the repercussions for people who do not want to broadcast their involvement with cancer. Consequently the movement emphasizes the majority, ignoring the individual sufferers who do not feel optimistic about their situations.

Barbara Ehrenreich, author of Welcome to Cancerland, writes, “As my cancer career unfolds, I will, the helpful pamphlets explain, become a composite of the living and the dead—an implant to replace the breast, a wig to replace the hair. And then what will I mean when I use the word ‘I’?” Again, the interplay between the individual and the group comes into question. It is vital to research what becomes of “the self” in a cancer patient and whether or not marathons such as Race for the Cure reassert individual identity that can be weakened from harsh treatments and surgery. Blumenfeld recounts, “When I found out [that I was diagnosed], I felt slightly relieved because it was discovered early. I knew it was survivable because so many people had gone through what I went through.”

Surely, there is merit in knowing there are other people who have had and lived through breast cancer, which is a commendable quality of Race for the Cure events. However, it is worth debating whether or not the Race for the Cure facilitates people to lose their true identity—the potentially unhappy torment they are feeling—in a pink mass of unified emotion.

In 2007, the twenty-fifth anniversary of Susan G. Komen for the Cure, the organization underwent a massive new campaign. Included in this “facelift” was a change of name. Originally called Susan G. Komen Foundation, the new name alluded to the fund-raising event, Race for the Cure, thereby establishing a stronger connection to the marathon. A new logo design featuring the pink ribbon combined with the slogan, “We’re On a Mission,” further connected the link between the non-profit and its monetary goals to support breast cancer research. With help from several marketing agencies, Susan G. Komen Race for the Cure adamantly sculpted itself a new image, intended for a younger audience. With sayings such as “We only focus on one thing. Or, depending on how you look at it, two” printed across a tank top and splattered across the nationally distributed publications People and USA Today, reducing any preconceptions that Komen for the Cure was reserved only for middle-aged women.

However, there was also extensive discussion of dissent over whether or not the new campaign hyper-sexualized the disease by resorting to attract the “male gaze” to gain increased funding. Feminist blogs were rampant in their attack on the campaign. On the
culture blog, “Everyday Life: (Not Every Day, But That’s Life),” a commenter known as “Cabell” writes in response to a post about the new Komen t-shirt campaign, “It’s bizarre to me how the female breast is so incredibly sexualized in the culture that most people can’t attenuate the link even when they’re talking about fatal cancer.”

Cabell’s response to Komen’s advertising campaign expresses the theory that as Susan G. Komen for the Cure becomes more influential and visible in the public eye, its tyranny over the ways breast cancer is handled grows. Race for the Cure marathons parallel the controversial campaign adjustment because they reduce the severity of the disease in the public eye. While the majority of media released by Komen are articles and images showing unbridled optimism, there is a shortage of images showing the bitter results of having the deadly disease. Nowhere in Race for the Cure footage are the photos of women with bodies ravaged by the breast cancer or the body-destroying treatments. Indeed, when placed between a healthy dose of the color pink and a big smile, it is easy to forget that breast cancer can kill at all. Therefore, the recent change of campaign upholds the notion that some people who are affected by breast cancer do not align with the rhetorical message portrayed by Komen.

There is a double-edged sword when attempting to locate a way to combat the problematic situations associated with the “tyranny of cheerfulness.” On the one hand, it would be depressing, and potentially debilitating to the women participating in the race, if it was overrun by morbid images that depicted the deadliness of the disease. Given Blumenfeld’s statement about breast cancer charity events serving as a “reminder” to what she went through, it is safe to hypothesize that Race for the Cure events would not be more appealing to her if there were more of an emphasis on death. Looking past the effects of cancer is obviously a viable option for many of those living with the illness, which explains why Race for the Cure pushes happiness so powerfully. Some patients have such strong firsthand knowledge of how devastating the disease is that breast cancer being connected to joyfulness is not a limitation, but a relief. However, Susan G. Komen for the Cure fails to depict personal desolation to the public, which results in a loss in the feelings about the legitimacy of the illness. Elaine Scarry, author of *The Body in Pain* writes, “Whatever pain achieves, it achieves in part through its unsharability, and it ensures this unsharability through its resistance to language….Physical pain does not simply resist language but actively destroys it, bringing about an immediate reversion to a state anterior to language, to the sounds and cries a human being makes before language is learned.” Perhaps this is the reason breast cancer depicted as a causer of pain is absent in Race for the Cure events. Because pain is so difficult—if not impossible—to express, it is simply disregarded. Komen’s new campaign illustrates Scarry’s idea. The use of dry humor and sexy innuendos in the t-shirt and magazine ads could be necessary act of communication since the pain cannot be truly represented. Put simply, there is no way to express the pain of breast cancer that others will help others completely understand. Because of this barrier, Komen re-signified the disease to denote happiness, hopefulness, and even wittiness with its new campaign.

This adjustment should not take away from the efforts of Susan G. Komen for
the Cure. Prior to the organization’s work, breast cancer was if not an obscure disease, at least a type of cancer that was not openly talked about. Race for the Cure marathons are successful events when measured by the amount of monetary donations received for research, as well as by the incredible amount of publicity, which in turn produces awareness. However, potentially dangerous cultural situations occur when Komen creates a monopoly over the acceptable ways to feel and act when dealing with breast cancer. Due to the overwhelming emphasis placed on cheerfulness during Race for the Cure events, there is pressure placed on individuals to express themselves in a way that aligns with the collective emotion of the entire event. The uniformity of these marathons, paired with the focus on the group of participants as a whole rather than on the individual people, ultimately excludes those, like Blumenfeld, who have cast aside their rose-tinted glasses concerning breast cancer. If there is any hope of relieving the tension that arises as a result of this aptly named “tyranny of happiness,” it is crucial to reduce the overt, robotically joyful way breast cancer is portrayed. Despite the deficit of tools to express pain, marathons must breathe real human emotions—including rage, despair and heartbreak—into Race for the Cure, however difficult that may be. Only then can Susan G. Komen for the Cure conduct an event that fails to estrange those who are not cheerful, but support the cessation of breast cancer nevertheless.
Endnotes


7. Ibid.


12. Ibid.


14. Ibid.


16. Blumenfeld, interview.

18. Blumenfeld, interview.

19. Elliot, “This Campaign Thinks Pink.”

20. Ibid.


23. Ibid.

24. Blumenfeld, interview.


26. King, Pink Ribbon.
Jenna Blumenfeld will graduate in August 2010 with a dual degree in Communications and Culture and Contemporary Dance. Following graduation, she plans on moving to New York City to pursue a career in dance. Currently a culture reporter for the Indiana Daily Student, she would also like to continue writing freelance. A foodie at heart, Jenna enjoys cooking and updates her vegetarian blog, Oven Zest, on a weekly basis.
Dangerous Waters: Failure of the Clean Water Act
by Rachel Irvine
Jennifer Hall-Massey is worried about her children. Unlike most other mothers of two young boys, however, Jennifer’s main concern is not that her children are neglecting their vegetables, playing too roughly, or eating too many sweets. Instead, Jennifer is faced with the ever-present fear that her two children will become seriously ill or that they might even develop chronic health problems that will plague them for the rest of their lives. The simple truth of the matter is that Jennifer and her family, who live a mere seventeen miles away from the highly urban city of Charleston, South Carolina, should be worried. The Hall-Massey family, as well as those in the surrounding community, have been bathing and drinking water straight from the tap, unaware for many months that their water was polluted with high concentrations of dangerous toxins, including lead and nickel. Her youngest son, an exuberant five-year-old, is covered in scabs all over his body, not as a result of rough-and-tumble play, but because of the fierce rash he breaks out with every time he bathes in the contaminated water; his seven-year-old brother, Ryan, has had most of his permanent teeth capped because the enamel was eaten away and destroyed by the toxins he placed in his mouth every time he rinsed to brush his teeth. Needless to say, the Hall-Massey family now uses only bottled water to brush their teeth, and they steer clear of the kitchen tap at all costs.

Like the Hall-Massesys, there are countless families across the nation suffering from the very real effects of coming into close contact with dangerously contaminated waters. While there is no doubt that the majority of Americans have access to high-quality water, it is estimated that at some point in their lives, approximately one in ten does not. How is it that such an atrocity can exist in the United States, a developed country and one of the leading world powers?

The issue of water quality is nothing new; ever since the industrialization of this country, toxic chemicals and other pollutants have been entering our natural environment in significant quantities. In an attempt to regulate water quality, the government has passed a number of pieces of legislation, including the vitally important Clean Water Act of 1972. Despite the government’s best intentions, however, the Clean Water Act and supporting legislation fails to effectively protect the quality of the nation’s waters.

In order to understand why water quality-related legislation falls short of its goals, a firm understanding of what water quality means and what exactly water pollution entails is important. Knowing the criteria by which the effectiveness and success of the current legislation is to be measured is also essential. Firstly, does the legislation prevent further pollution from entering the nation’s waterways, and secondly, do the minimum standards of water quality established by the legislation actually provide for the protection of human health?

During the 1800s, rampant pollution was a byproduct of rapid industrialization in the United States. Since there were no regulations in place to protect the quality of the country’s waters, air, or other aspects of the natural environment, a great deal of dam-


age was done. Although it is easy to look back on historical events and see the problems of the time, it is often much more difficult to realize and confront the problems of our society today. The Industrial Revolution may be far behind us, but pollution in the U.S. continues to be a major problem, as evidenced by the plight of the Hall-Massey family. To address such grievances against the environment, the U.S. government passed the Federal Water Pollution Control Act of 1948. This piece of legislation focused largely on the effects of poor water quality on human health and was geared specifically toward “reducing the pollution of interstate waters and tributaries and improving the sanitary condition of surface and underground waters.” Although the legislation was a first step in protecting water quality, it emphasized the idea of protecting the country’s water supply from contamination more than it actually affected the state of the nation’s waters. The legislation had limited guidelines on how to curb pollution and instead focused primarily on promoting the treatment and disposal of sewage.

Not until later legislation was passed was significant progress made to protect the quality of the nation’s waters. In response to growing public concern, congress overhauled the initial legislation in 1972 and again in 1977 to form what now constitutes the backbone of the nation’s premier water quality guidelines: the Clean Water Act. Today, the Clean Water Act (CWA) sets the minimum standards for water quality to which all states must adhere. The legislation includes detailed rules that regulate the quantity and types of pollutants that can be discharged into waters, institutes the use of pollution control programs, sets up a series of guidelines regulating the treatment and disposal of sewage and industrial wastes, and establishes the need to create plans to address nonpoint source pollution. Overall, the rules delineated by the CWA aim to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”

In order to better understand what the legislation means, understanding what constitutes “water quality” and what is meant by “pollution” is important. As defined by the United States Geological Services, water quality is “a measure of the suitability of water for a particular use based on selected physical, chemical, and biological characteristics…such as temperature, dissolved mineral content, and number of bacteria [or other pathogens].” According to the CWA, the quality of a given body of water is determined to be “good,” “threatened,” or “impaired” based on its level of toxic pollutants, with a special emphasis on its level of coliform bacteria. A designation of “good” signifies that the waters can “fully support all their designated uses,” while “threatened” waters “exhibit a deteriorating trend.” “Impaired” waters “are not supporting one or more designated uses,” defined as human consumption, bathing, fishing, or swimming, among others. If a body of water fails to meet these established standards, the water’s rating is reissued as either “impaired” or “threatened,” depending on the severity of the water’s infraction.

While coliform levels do play a key role in determining the federal designation of the water quality of a given body, as mentioned before, the CWA aims to address far more than just bacterial counts. Part of protecting the “integrity of the Nation’s waters” also includes the regulation of all pollutants, with the ultimate goal that “discharge of toxic pollutants in toxic amounts be prohibited.” “Pollutants” encompass any “noxious or
poisonous substance(s) that make something physically impure, foul, or filthy,” and can further be defined by their source of origination as either point or nonpoint source pollutants.¹⁰ As defined by the CWA, point source pollutants refer to “discernible, confined and discrete conveyance, including but not limited to any pipe, …well, discrete fissure… [etc…], from which pollutants are or may be discharged.” This is in contrast to nonpoint source pollutants, which, as their name implies, have no single loci of origination, but instead come from “scattered or diffuse sources,” including such things as “runoff from farm fields and feedlots, golf courses, …roads, streets, and parking lots.”¹¹

The risks that pollutants and poor water quality present to human health, as well as the degradation to the natural environment and its subsequently negative effects on wildlife and humans, are the driving forces behind the government’s interest to regulate water quality. As mentioned previously, Congress passed the CWA in order to “restore and maintain the… integrity of the Nation’s waters.” Without such legislation, it is unknown what the water quality would be in our country. Though the legislation has helped in some ways, the Clean Water Act has not achieved its goals.

The criteria necessary to prove that the CWA has not achieved its goals are relatively clear-cut. To begin with, does the legislation actually prevent further pollution from entering the water supply? In the Act’s opening lines, it explicitly states that it is the “national goal that the discharge of pollutants into the navigable waters be eliminated… that the discharge of toxic pollutants in toxic amounts be prohibited…and that programs for the control of nonpoint sources of pollution be developed and implemented… so as to… control both point and nonpoint sources of pollution.”¹² Clearly, these goals have not been met; pollution and poor water quality continue to plague the country. According to a 2008 Report by the Committee on Transportation and Infrastructure, while “60 to 70% of assessed waters meet State water quality goals,” that still leaves approximately 30 to 40% that do not, and “that poor water quality continues to affect aquatic life, fish consumption, swimming, and sources of drinking water in all types of water bodies.” In fact, the percentage of water bodies that do not comply with minimum standards is likely even larger than the reported levels, since “interstate commissions report that they monitor only 33% of the nation’s waters,” leaving the water quality of 67% of the nation’s waters completely unknown and unregulated. Furthermore, although instances of point source pollution have greatly decreased since the CWA legislation was enacted, nonpoint source pollution continues to be rampant throughout the country. According to the EPA, it is “estimated that 90% of the nation’s impaired waters are contaminated, in part, by nonpoint sources of pollution,” making nonpoint sources “the single-largest contributor of pollutants to the nation’s waters.”¹³ Based on these findings, it is evident that the CWA legislation fails to achieve its goal of preventing further pollution from entering the nation’s waters.

A second set of criteria that can be used to measure the effectiveness of the CWA is whether or not the standards by which we determine water quality actually protect human health. Currently, the “Total Coliform Rule” amendment of 1989 set the minimum standards to meet the federal goal for potable water at a total of zero bacterial colonies of “total coliforms in a 100 mL sample of drinking water” and require that no more than 5
percent of the tested water samples show positive for coliform bacteria. For recreational waters, fecal coliforms are not to exceed 61 bacterial colonies per 100mL for waters in which full-body immersion is expected, nor to exceed 89 colonies per 100mL for waters in which only partial-body immersion is expected. Despite these water quality standards being in place, according to the Center for Disease Control and Prevention there are approximately 16.4 million cases—over 5 percent of the U.S. population—of acute gastrointestinal illness each year, 39 percent of which are caused by undetermined causes, 21 percent by parasitic protozoa, 18 percent by bacterial pathogens, 6 percent by viruses, and 16 percent by chemical pollutants.

Furthermore, while the number of people who still rely on untreated water lies at only about 2 percent of the population as of the year 2000, this small percentage is misleading. According to the Committee on Transportation and Infrastructure’s 2008 Report to Congress, this percentage does not accurately reflect the actual health risks that the American people are currently faced with regarding the quality of their water. In the report, the Committee explains that the “progress made in cleaning up the nation’s waters…(due to) wastewater infrastructure improvements… is now at risk.” The Committee estimates that in the year 2025, contamination will reach levels “not seen since 1968—four years before the enactment of the CWA—when such pollution reached the maximum level ever recorded.” Based on these forecasts of an upward trend in untreated waters being released for use by the public, compiled with the data on current rates of water-related sicknesses occurring annually within the U.S., it is apparent that even the minimum compliance standards set by the CWA fall short in actually protecting human health.

Despite legislative efforts over the years, many of the waters in the U.S. continue to suffer from poor water quality. Whether contaminants reach the waters from point source or nonpoint source locations, citizens like the Hall-Massey family are confronted with pressing health concerns related to the quality of the water that they come into contact with on a daily basis. The CWA, although well intentioned, falls short of its established goals to prevent further pollution from entering the nation’s waters and to set minimum standards that protect the health of the American people. Thus, the Clean Water Act ultimately fails to effectively protect the quality of the nation’s waters.

Endnotes

4. Ibid.
5. Ibid.
12. Federal Water Pollution Control Act.
16. Committee on Transportation and Infrastructure, Stagnant Waters.

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