



# STANCE

An International Undergraduate  
Philosophy Journal

# Stance

## An International Undergraduate Philosophy Journal

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# Across and Beyond: The Semantics of Transgender Identity

Gunnar Lund

**Abstract:** This paper examines two senses of the term “transgender:” transgender as across the gender binary and transgender as beyond the gender binary. Explored are the difficulties this ambiguity poses to transpeople. In short, using the theories of Ferdinand de Saussure and Richard Rorty, this paper argues that the meaning of “transgender” must simultaneously embrace both senses of the term, rather than one or the other.

“When I spoke, I had a chance to educate, and, paradoxically, I became less of a freak.”

- Kate Bornstein, *Gender Terror, Gender Rage*

Transgender is not a regularly-used word in most people’s vocabularies. For others, transgender is the word that defines their *lives*. It’s the term that defines not just their day-to-day experiences, but also their selves, their identities. For those with only the rare encounter with transgender, the term may conjure an image of a drag king or perhaps recall the famous case of Christen Jorgenson. Some people may simply know it as the “T” in LGBTQ. In a way, all of these are correct. Sally Hines’ book *Transforming Gender* broadly describes transgender as “incorporating practices and identities such as transvestism, transsexuality, intersex, gender queer, female



and male drag, cross-dressing and some butch/femme practices.”<sup>1</sup> Of course there are much narrower definitions. Holly Boswell points out that until 1990, only transsexuals, cross-dressers, and drag kings and queens were considered transgender.<sup>2</sup> It’s obvious, then, that the term “transgender” has no agreed-upon definition.

Despite this, the word must have some common meaning to be useful. Breaking down the word reveals two components: the root “gender” and the prefix “trans-.” The root “gender” is in its own right an ill-defined term, but for the purposes of this paper, I will take it to mean the gender binary of male and female. Whether this is socially or biologically determined is a frequent argument in gender studies. The prefix “trans-,” on the other hand, has two oft used meanings. It may mean “across” as in the word “transcontinental,” which means “across continents.” Or it may mean “beyond” as in the word “transcend,” which means “to move beyond.” In this way, transgender is a polyseme, a word with multiple meanings. Simply put, it may mean either “across gender binaries” or “beyond gender binaries.” This paper will examine the use of the term in the sense of “across” and in the sense of “beyond.” It will also address the problems that the ambiguity of the term poses to transpeople. Finally, using Ferdinand de Saussure and Richard Rorty, it will offer potential solutions to better define the term to fully represent transgender experiences. It needs acknowledgment that this paper can only speak on transgender as it is used in the West, specifically English speaking countries. Other geographic areas and languages have different terms (and in many cases different genders), and as such, the scope of this paper cannot fully address them.

I will begin by examining “transgender” in the sense of “across gender binaries.” In this sense, the transgender individual is bounded by the male and female binary. In other words, s/he must identify as either a male or female. This sense of the term has been used by cisgender individuals critical of transgenderism, transpeople, and the medical community. This paper will borrow the definition

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<sup>1</sup> Sally Hines, *Transforming Gender: Transgender Practices of Identity, Intimacy and Care* (Bristol: The Policy Press, 2007): 1.

<sup>2</sup> Holly Boswell, “The Transgender Paradigm Shift Toward Free Expression,” in *Current Concepts in Transgender Identity*, ed. Dallas Denny (New York: Garland Publishing, 1998): 55.



of “cisgender” from the Midwest Trans and Queer Wellness Initiative: “a person whose gender identity aligns with the identity that was assigned to them at birth based on their visible, physical sex.”<sup>3</sup>

Janice G. Raymond, a self-described lesbian feminist and cisgender individual, was one of the first feminists to broach transgenderism, albeit in a way highly accusatory of transpeople. Critical of transgenderism for being inauthentic, she says:

All transsexuals rape women’s bodies by reducing the real female form to an artifact, appropriating this body for themselves. However, the transsexually constructed lesbian-feminist violates women’s sexuality and spirit, as well. Rape, although it is usually done by force, can also be accomplished by deception.<sup>4</sup>

Raymond is not only saying that transsexuals are restricted to either male or female; she is asserting that transsexuals are restricted to the gender that they are born with. Male-to-female transsexuals specifically are not female at all, and in order to deceive women, must actually know full-well that they are men, and will always be men. For this individual to say otherwise is rape because they are “reducing the real female form to an artifact.”

Transgender theory began partially as a response against Raymond’s offensive account of transgenderism in this text, a transgenderism that Raymond believes is morally equivalent to rape. This does not mean that all transgender individuals disagree with the fundamental assumption that sex and gender are concrete entities, however. Many transpeople themselves assert that gender binaries do exist in some way. Their transgender identity hinges on the difference between their felt gender and their biological sex. This difference actually defines the “logic” of the

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<sup>3</sup> Midwest Trans\* and Queer Wellness Association, “GenderQueer and Queer Terms | Midwest Trans\* & Queer Wellness Association,” <<http://www.genderqueercoalition.org/terms>> (13 February 2012).

<sup>4</sup> Janice G. Raymond, “Sappho By Surgery: The Transsexually Constructed Lesbian-Feminist,” in *The Transgender Studies Reader*, eds. Susan Stryker and Stephen Whittle (New York: Routledge, 2006): 134.



transgender experience.<sup>5</sup> According to Jay Prosser, the material body is necessary to transgender identity.<sup>6</sup> Because the body has a male or female sex and because transpeople feel a disassociation with that physical sex, the male/female binary plays an integral role in trans identity. This is often called the “wrong body” phenomenon, as the feeling is as though the individual inhabits the wrong body. The experience of many trans individuals seems to reify this. One trans individual who was born biologically female says, “I’d always just identified as being male, I’d never thought of myself as anything else.”<sup>7</sup> His gender is wholly male, despite his female genitals, and always has been.

Rather than feeling as though they transcend gender, most trans individuals assimilate fully into the opposite sex by attempting to “pass” and through body-modification surgery.<sup>8</sup> A transgender person is considered to pass when s/he cannot be recognized as a transperson by the members of society. This way, s/he lives life as solely male or solely female, practically identical to the way cisgender people live their lives. In order to completely assimilate, many transpeople surgically transform their genitals to match their desired sex. This genital-reassignment surgery may actually reinforce gender binaries. One post-op transsexual says, “I’m not a *muchacho*...I’m a *muchacha* now...a girl.”<sup>9</sup> A second says, “In the instant that I awoke from the anaesthetic, I realized that I had finally become a woman.”<sup>10</sup> These individuals experienced a direct movement from their former, male selves to their female selves, the selves they always desired to be. Because of this, Prosser asserts that surgery is necessary for establishing their “real” gender, a gender which fits the gender binary.<sup>11</sup>

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<sup>5</sup> Quoted in Gill Jagger, *Judith Butler: Sexual Politics, Social Change and the Power of the Performative* (New York: Routledge, 2008): 151.

<sup>6</sup> *Ibid.*, 150.

<sup>7</sup> Hines, *Transforming Gender*, 50.

<sup>8</sup> Boswell, “The Transgender Paradigm,” 58.

<sup>9</sup> Sandy Stone, “The *Empire* Strikes Back: A Posttranssexual Manifesto,” in *The Transgender Studies Reader*, eds. Susan Stryker and Stephen Whittle (New York: Routledge, 2006): 225.

<sup>10</sup> *Ibid.*

<sup>11</sup> Jagger, *Judith Butler*, 152.

Additionally, the terms that transpeople use establishes transgender as across rather than beyond. In a survey of thirty transpeople, the most common terms used to describe themselves are “MtF,” “FtM,” “transwoman,” and “transman.”<sup>12</sup> By using male and female in self-description, these terms suggest that transpeople must occupy some position on the gender binary. The “MtF” identity can be interpreted as a very clear shift from the male gender to the female gender. The fact that these people do include former-selves as well as current-selves in their description indicates a distinct transition from one gendered pole to the other. However, these terms do establish that, for instance, an MtF person is different from a simply female person. In this sense, the transition is not final; those who are MtF or FtM are between the poles of the binary. To articulate this, some transpeople have proposed the idea of a gender continuum to describe their experiences as beyond.<sup>13</sup> This continuum, also referred to as a rainbow or spectrum, describes gender as the range of traits considered male or female. These notions conserve the binary poles, however.

The medical community, which includes the doctors who perform the surgeries as well as the sociologists and psychologists who study transpeople, appear to have defined transgender in the across-sense. One of the first clinics established to study the transgender was the Stanford Gender Dysphoria Program. Founded in 1968 by surgeons and psychologists, it served to better understand what they called “gender dysphoria,” or what we would now call transgenderism. It concluded that “a transsexual is a person who identifies his or her gender identity with that of the ‘opposite’ gender.”<sup>14</sup> Essentially, the program only defined the transsexual as a person experiencing the wrong body phenomenon. This program also performed reassignment surgeries; however, it selected participants on how well they behaved as the opposite sex.<sup>15</sup> As such, the medical community came to deem transsexuals as only those who wish to fully assimilate as the other sex. Any individual failing to totally occupy the binary gender-position opposite their birth sex is not transgender from the medical perspective. Additionally, physicians in the United States

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<sup>12</sup> Hines, *Transforming Gender*, 70.

<sup>13</sup> Ruth Hubbard, “Gender and Genitals: Constructs of Sex and Gender,” in *Current Concepts in Transgender Identity*, ed. Dallas Denny (New York: Garland Publishing, 1998): 53.

<sup>14</sup> Stone, “The *Empire* Strikes Back,” 222.

<sup>15</sup> *Ibid.*, 227-228.



regularly pressure parents with so-called intersex babies to choose their child's sex. Usually the physicians recommend that they turn them into "real" females, as the cosmetic result is less-ambiguous than that of a "real" male.<sup>16</sup> In the medical community, there is no room for ambiguity between male and female.

On the other side of the term, there is a sense that transgender is beyond a binary framework of gender, that transgender cannot be captured by simple manipulation of the terms male and female. Although many who see transgender as beyond gender are transgender themselves, with cisgender people, too, there is a subtle recognition that a transperson cannot be easily fit into male or female. In "Gender Terror, Gender Rage," Kate Bornstein describes her experience as a transwoman at her office. When she first transitioned, the manager became distressed at the thought of which bathroom she should use. Discontented with Bornstein using either restroom, the manager decided that she should use a bathroom on a different floor, a floor torn apart during an abandoned construction project. The bathroom itself was never maintained.<sup>17</sup> The manager recognized that she was neither male nor female, and that she could not be fit into a category. However terrible this story may be, it illustrates that for the transgender, the terms "male" and "female" do not capture their identity within society. We see this faint recognition once more with gender play. Gender play, which is essentially playing with concepts of masculinity and femininity, within popular culture is acceptable for the most part; Take the personas of David Bowie, the Rolling Stones, and Madonna for instance.<sup>18</sup> None of these celebrities would consider themselves transgender, but many of their traits could hardly be considered to coincide with their traditional gender. The fame surrounding these individuals for their transgressions indicates slight acknowledgment that the barrier between genders can acceptably be dismantled.

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<sup>16</sup> Ruth Hubbard, "Gender and Genitals: Constructs of Sex and Gender," in *Current Concepts in Transgender Identity*, ed. Dallas Denny (New York: Garland Publishing, 1998): 49.

<sup>17</sup> Kate Bornstein, "Gender Terror, Gender Rage," in *The Transgender Studies Reader*, eds. Susan Stryker and Stephen Whittle (New York: Routledge, 2006): 243.

<sup>18</sup> Hubbard, "Gender and Genitals," 50.

Within the transgender community (as far as there is a transgender community), it is heavily accepted that their experience can be described as beyond gender. Holly Boswell actually goes so far to say that transcendence of gender *is* transgender:

The word “transgender” describes much more than crossing between the poles of masculinity and femininity. It more aptly refers to the transgressing of gender norms, or being freely gendered, or transcending gender altogether in order to become more fully human. To deny part of our humanity (the so-called masculine or feminine aspects) is to lock in and shut down a beautiful part of one’s true self.<sup>19</sup>

In this definition, transpeople are not the classic image of the transsexual who feels as though s/he is in the wrong body. In support of this, many transpeople feel that the wrong body phenomenon does not describe their experiences. For many, surgery and genital reconstruction, what was often considered proof of the gender binary, is no longer of much importance.<sup>20</sup> These individuals decided that the genitals, which surgeons can only understand as a binary, are of little importance in one’s identity. Some pre-op transsexuals are actually quite thankful that they never had surgery; they appreciate being able to call on the traits of either gender whenever they please.<sup>21</sup> In this way, denying the binds of the gender binary leads to a fuller, more representative identity.

Further, transpeople find that language, itself caught in the gender binary, cannot capture their experiences. Transpeople often do not know how to frame their experience in male/female terms. Does being transgender mean to be between the binary, neither male nor female, both male and female? There is not really an accurate answer to these questions.<sup>22</sup> When language is confined to the gender binary, it fails to be useful to transpeople. One transwoman said, “The thing that defeats me is language at the end of the day. There is not a term which

<sup>19</sup> Boswell, “The Transgender Paradigm Shift,” 56.

<sup>20</sup> Hubbard, “Gender and Genitals,” 51-52.

<sup>21</sup> Hines, *Transforming Gender*, 73-74.

<sup>22</sup> Boswell, “The Transgender Paradigm Shift,” 56.



I'm absolutely content and happy with. [...] This whole gender issue is a spectrum but there isn't a word which describes that."<sup>23</sup> Language, as it is now, defeats transpeople.

In the face of an often silencing and inadequate binary gender paradigm, one transperson has created her own. Taking the notion of the gender continuum and “[twirling] that line in space, and [spinning] it through several more dimensions,”<sup>24</sup> Kate Bornstein has created gender fluidity. She defines this as “the ability to freely and knowingly become one or many of a limitless number of genders, for any rate of change. Gender fluidity recognizes no borders or rules of gender.”<sup>25</sup> In this conception, gender is beyond the poles of male and female and far more complex than simply male and female traits, since presumably there are infinitely many genders with their own characteristics. How these genders are articulated does not matter much; it's more important that people realize that there are such options.<sup>26</sup> However, the actual prevalence of such identities is still unclear.

The ambiguous meaning of transgender lends to social problems for transgender individuals. To conflate the beyond-sense of transgender with the across-sense creates a disconnection between transpeople and medical and political practice. As has already been seen, the medical community nearly universally recognizes transpeople in the across-sense of the word. However, transpeople may actually see themselves as beyond gender and regularly call on the traits of both genders. These individuals, should they continue to exhibit both male and female traits, cannot get hormonal medication or surgery. As such, many transpeople must follow a “script” where they claim to feel the wrong body phenomenon.<sup>27</sup> Not only does this reinforce the doctors' notion that a true transperson must feel as though they have the wrong body, but it disserves the individual who must hide their identity from society. Recursively, surgery actually becomes a device for some transpeople to hide their trans identity. Body modification in order to pass acts as security against a

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<sup>23</sup> Hines, *Transforming Gender*, 82.

<sup>24</sup> Kate Bornstein, *Gender Outlaw: On Men, Women, and the Rest of Us* (New York and London: Routledge, 1994): 116.

<sup>25</sup> *Ibid.*, 52.

<sup>26</sup> *Ibid.*, 51

<sup>27</sup> Hines, *Transforming Gender*, 62-63.

world hostile to trans identities.<sup>28</sup> If society did not severely discriminate against trans identities, the need for passing, and thus surgery, disappears.<sup>29</sup> Surgery does not reflect transgender in the across-sense; it reflects the prejudices of society. Of course, as seen earlier, surgery can be liberating for many transpeople; surgery is not always an act of hiding.

It has been shown that the argument that sex-reassignment surgery supports the across-sense of transgender becomes questionable in light of the medical process. Further, the assertion that transgender adheres to the binary may originate from the whole of cisgender society and not transpeople, the people who actually identify as the ill-defined term. Judith Butler, building from Foucault's notion that political structures exert power over the populace through mechanization and supervision of the human body, extends this to the gender binary noting that these same structures of power also have interests "in keeping the body bounded and constituted by markers of sex."<sup>30,31</sup> From this perspective, it is society that binds the transgender identity to the binary. Social reactions and laws regarding transgenderism seem to support this. Transpeople operating beyond the binary are "stigmatized, ostracized, and socially delegitimized to the extent that they may fail to be socially recognized."<sup>32</sup> This societal discrimination is even evident in laws meant to grant transpeople rights. In the U.K.'s Gender Recognition Act of 2004, transpeople could receive legal recognition of their new gender. Unfortunately, this recognition is conditioned on the fact that s/he receives reassignment surgery.<sup>33</sup> This law, despite its intention, discriminates against many transpeople who do not want surgery. Further, the law reduces the identities of transpeople who have had surgery but identify as neither male nor female; their identities, rather than being multifaceted, become demarcated solely by their genitals.

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<sup>28</sup> *Ibid.*, 57, 69.

<sup>29</sup> Jagger, *Judith Butler*, 152-153; Hines, *Transforming Gender*, 73.

<sup>30</sup> Michel Foucault, *The History of Sexuality: Volume I: An Introduction*, trans. Robert Hurley (New York: Pantheon, 1978): 139.

<sup>31</sup> Quoted in Jagger, *Judith Butler*, 141.

<sup>32</sup> Hines, *Transforming Gender*, 58.

<sup>33</sup> Jagger, *Judith Butler*, 146.



Linguistic descriptions in support of the across-sense of transgender also become suspicious when considering the deficiencies voiced by transpeople. Regardless of language deficiency, transpeople must still attempt to describe their experience. As such, they must use a language trapped within the binary. This could explain why the terms discussed earlier (e.g. “MtF”) seemed to reinforce the across-sense of transgender. There are no commonly accepted terms outside the binary that could better describe their identities. Therefore, transgender as both across and beyond should be commonly acknowledged so that society can make sense of such identities.

The semantic value of transgender will not necessarily remain indefinite. Transgender is a word, and like any other word, it is subject to linguistic change. In fact there is historical precedent for multiple, broader gender terms as well as semantic change. *Gallae*, *hijras*, *mahu*, and *xanith* are all terms used for so-called third sex people in the Roman Empire, India, Polynesia, and the Middle East respectively.<sup>34</sup> English translation must resort to the generic term “third sex” as English lacks a word to capture these people. In English, semantic change is evident through the word “girl,” which meant any child in Middle English and not just female children.<sup>35</sup> There is no reason a similar accommodation or change could not eventually occur for transgender.

However, semantic change does not mean that transgender will truly reflect trans identities. Transpeople need a language to describe themselves, a language that society recognizes as well. According to Ferdinand de Saussure, who is often considered the father of modern linguistics, meaning is constructed by the speakers of a language. Meaning shifts only occur when those speakers support the new usage of the term.<sup>36</sup> Thus, society itself must recognize that transgender can mean beyond gender, and not its current common usage in the across-sense. This is not to say that most people need to become transgender themselves. The word “gay,”

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<sup>34</sup> Boswell, “The Transgender Paradigm Shift,” 58.

<sup>35</sup> Robert W. Murray, “Historical Linguistics: The Study of Language Change,” in *Contemporary Linguistics: An Introduction*, ed. William O’Grady (Boston: Bedford/St. Martins, 2010): 272.

<sup>36</sup> Eva Wanick and Erik M. Vogt, “Meaning in Gender Theory: Clarifying a Basic Problem From a Linguistic-Philosophical Perspective,” *Hypatia* 20, no. 2 (2005), <<http://www.jstor.org/stable/3811163>> (13 February 2012): 59.



for instance, did not mean homosexual until recently, and most people would not identify as gay but still employ the term.<sup>37</sup> It is necessary, however, that transpeople participate in language to redefine the term to better describe their identity.<sup>38</sup> Because the semantic values of words reflect the values of the linguistic society that uses them, transpeople must participate in that society. As the “passing” transperson is not seen as trans in society, participation may require that transpeople refuse to wholly assimilate and assert their identities as neither male nor female.

This solution fails to address that those that identify as transgender hold differing opinions as to what the term really means. As has been seen, transpeople commonly identify with both senses; the across-sense cannot be totally erased, yet the beyond-sense must also proliferate. The pragmatist philosopher Richard Rorty presents a possible resolution to this. In *Feminism and Pragmatism*, Rorty argues that women should, rather than attempting to describe their experience through an already existing language, create a logical space, a language, and thus an experience.<sup>39</sup> Through self-invention, groups have “semantic authority over themselves,” and eventually this semantic authority intertwines with the language of society as a whole.<sup>40</sup> This pragmatic approach can be extended to any oppressed group, not just women, and therefore is useful for transpeople as well. Through this approach, transpeople create their own language, rather than attempting a description using an inadequate language. The created language should take into account all trans experiences, across or beyond, so theoretically, there would be no disagreement as to whether the language is accurate enough. This act of creation would need to occur outside society so that authority is established by transpeople. Then, this new language will assert itself into society’s common language.

The word transgender is not well-defined and generally means either “across the gender binary” or “beyond the gender binary.” Often, the former meaning is recognized by cisgender people, the medical community, and by transpeople. The latter meaning is nearly exclusively used by transpeople. Some of these

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<sup>37</sup> Murray, “Historical Linguistics,” 273.

<sup>38</sup> Wanick, “Meaning in Gender Theory,” 63.

<sup>39</sup> Richard Rorty, “Feminism and Pragmatism,” (Lecture, The Tanner Lectures on Human Values, University of Michigan, December 7, 1990): 14-15.

<sup>40</sup> *Ibid.*, 31-33.



transpeople argue that society has constructed the notion of transgender in the across-sense, and that transpeople would not identify with this sense if society were more open to gender identities beyond the binary, identities that they inhabit. As it is clear that the across-sense fails to describe the experience of many transpeople, the notion that this is the only correct sense needs to be abandoned; society must recognize that many transpeople do not need to identify with either pole on the binary. To rectify this difference in meaning and place semantic authority with those who identify as transgender, Saussure and Rorty offer two solutions. Saussure's theory of meaning suggests that transpeople need to actively participate in society as transpeople. Rorty's theory asserts that transpeople should, outside this participation, create a language unique to transpeople. As transgenderists and their supporters actively use the word "transgender" to encompass beyond-identities, "transgender," currently used in society's common language as only "across," will eventually replace its discriminatory meaning with something more representative of actual transgender experiences. ❖

# Science: A Greatest Integer Function— A Punctuated, Cumulative Approach to the Inquisitive Nature of Science

Kristianne C. Anor

**Abstract:** Thomas Kuhn argues that scientific advancements sometimes involve paradigm shifts between incommensurable theories, thoughts, and concepts. I argue that the phenomenon Kuhn is attempting to describe is better explained as akin to a greatest integer function of punctuated equilibrium. I conclude that Kuhn is mistaken in thinking that science is an actively vigorous, cumulative discipline.

## I. Preface

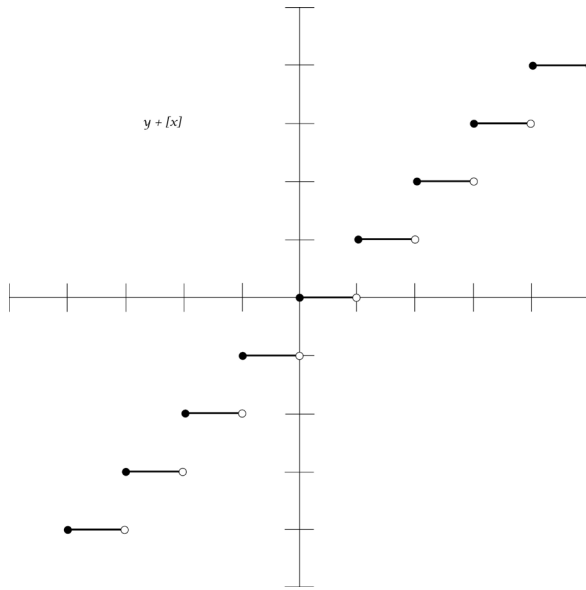
Consider a greatest integer function or step function as in [Diagram 1.0](#). A greatest integer function is a special type of discontinuous function whose graph is a series of line segments. It is a cumulative distribution function of a random variable and jumps from one value to the next, therefore resembling a series of steps. One endpoint in each step is closed (black dot) to indicate that the point is a part of the graph and the other endpoint is open (open circle) to indicate the point is not a part of the graph.<sup>1</sup>

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<sup>1</sup> J. Stewart, *Calculus 7E Early Transcendentals* (Boston: Brooks-Cole, 2010): 29.



Diagram 1.0 Greatest Integer Function



Now, consider the evolutionary biological theory of punctuated equilibrium, as depicted pictorially via Diagram 1.1. Eldredge and Gould's theory of punctuated equilibrium articulates long periods of apparent stasis interrupted by relatively brief periods of sudden change, as demonstrated below.

Diagram 1.1 Punctuated Equilibrium Graph

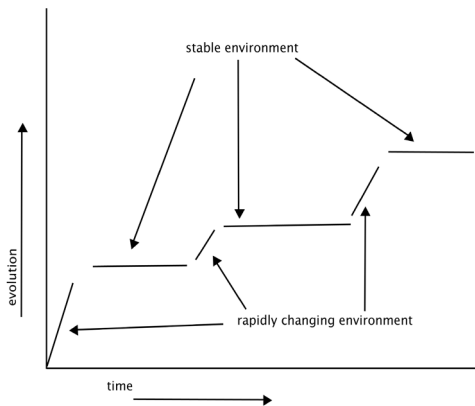


Diagram 1.0 and Diagram 1.1 share striking resemblances; both graphs involve a discontinuity at certain points, depict a cumulative distribution of a random variable, and both graphs resemble a series of steps. From a holistic viewpoint, the steps these two graphs depict are merely parts of a greater staircase called *progress*. However, it is each individual step which promotes transformation, revolution, and improvement.

## II. Introduction

Science is dynamic. It is a unique discipline which centers on the concept of revision. It recognizes the basic uncertainty of human knowledge and utilizes that uncertainty to establish its inquisitive nature. Science is an actively vigorous discipline.

What is the nature of scientific advancement and progression? Many discussions have occurred regarding the nature of science, and much work has been done to investigate various scientific methods and diverse modes of scientific enquiry by several philosophers of science. Most notably in this regard is Thomas Kuhn. Kuhn's book, *The Structure of Scientific Revolutions*, sparked most contemporary responses to these questions, as it is unquestionably the most influential work in philosophy of science during the last fifty years.<sup>1,2</sup>

In this essay, I will attempt to cast doubt on Kuhn's general argument that the development of science occurs via juxtaposed paradigm shifts in incommensurable theory, thought, and concepts. I will then try to respond to the question initially posed (i.e. What is the nature of scientific advancement and progression?) by arguing that the simplest way to answer this question is to liken science to a greater integer function of punctuated equilibrium. Thus, I will attempt to respond to this question by reinstating the long-established notion that science is not a diminishing discipline, but is rather a cumulative discipline.

Kuhn challenged the prevailing notion of the nature of science as cumulative and progressive, arguing instead that science evolves through revolutionary changes in which one theory or "paradigm" is replaced by a radically different one.

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<sup>2</sup> S. Okasha, *Philosophy of Science: A Very Short Introduction* (New York: Oxford University Press, 2002): 77.



The replacement of existing theories with radically different ones did not merely involve a simple matter or theory substitution, but it also involved a paradigmatic shift in concept meanings from previous theories.

Kuhn distinguishes between normal and revolutionary scientific development by arguing that most successful scientific research results in change of normal science, and “its nature is well captured by a standard image: normal science is what produces the bricks that scientific research is forever adding to the growing stockpile of scientific knowledge.” However, Kuhn adds, “Revolutionary changes are different and far more problematic. They involve discoveries that cannot be accommodated within the concepts in use before they were made. In order to make or assimilate such a discovery one must alter the way one thinks about and describes some range of natural phenomena.”<sup>3</sup> He therefore concludes that since “referential changes of this sort accompany change of law or theory, scientific development cannot be quite cumulative.”<sup>4</sup> Normal science is practiced within a certain paradigm, which provides the scientist with puzzles to solve. Once a large amount of anomalies has accumulated, or a particularly troublesome anomaly that cannot be ignored is encountered (due to the insufficient or inadequate current paradigm within which scientists are working), a new paradigm may be formulated, encompassing all of the anomalies that existed in the previous paradigm. The newly formulated paradigm is thus adopted, thereby resulting in the abandonment of the previous paradigm. With this new paradigm, however, not only comes a novel theory, but also comes a novel way of interpreting older concepts and definitions. Thus, a paradigmatic shift in theory, thought, and concepts occurs, marking the occurrence of, as Kuhn calls it, a revolution.

Visualizing Kuhn’s argument, we can liken scientific development and novel discoveries as a series of bubbles juxtaposed against each other.

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<sup>3</sup>Thomas Kuhn, *The Structure of Scientific Revolutions*, 2nd ed., rev. (Chicago: University of Chicago Press, 1969): 7-8. The book was first published in 1962.

<sup>4</sup>Ibid., 8.

## Diagram 2.0 Kuhn's Account for Paradigms and Anomalies

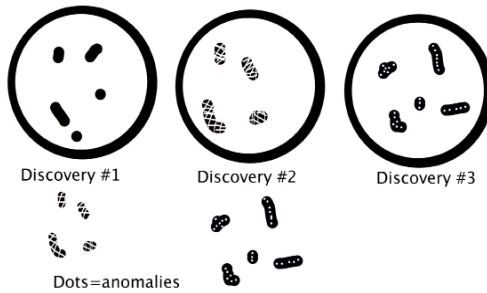


Diagram 2.0 is a pictorial depiction of Kuhn's argument that scientific development and novel scientific discoveries are not cumulative, but rather that each revolutionary change is "somehow holistic."<sup>5</sup> Each discovery (Discovery #1, Discovery #2, and Discovery #3, respectively) was advanced through an accumulation of encountered anomalies. As scientists studied each anomaly, they were eventually able to develop a new paradigm, which resolved the anomalies encountered in the previous paradigm. This enabled and encouraged them to abandon the previous paradigm and the concepts and meanings each paradigm housed. According to Kuhn, developments in science are therefore neither cumulative nor uniform but instead occur in alternating periods of normal and revolutionary science.

### III. Critique of Kuhn

Kuhn's notion of scientific development through independent paradigmatic shifts in theory, thought, and concepts is problematic in several ways. First, Kuhn's concept of paradigms is unrealistic. Second, Kuhn's position on paradigms being incommensurable is too radical. Finally, Kuhn's use of an evolutionary metaphor to explain science's pursuit of truth is troublesome. From a deeper understanding of each critique, it will become clear that Kuhn's overall view of the nature of science and its development through incommensurable paradigmatic shifts in theory, thought, and concepts is problematic.

<sup>5</sup> Ibid., 19.



First, Kuhn's concept of paradigm is unrealistic. Kuhn argues that the development and transformation of science is catalyzed by formulations of novel paradigms that articulate and encompass the "puzzles" the existing paradigm encounters. Thus, normal science operates under a given paradigm, which simultaneously provides the scientist with both puzzles to solve and tools to solve each given puzzle. Once too many of the pieces of the puzzle prove incompatible with each other and the given theory, a new paradigm is adopted and the former paradigm is abandoned, along with its concept meanings. Kuhn maintains that both paradigms are incomparable, incompatible, and thus, incommensurable.

Kuhn's concept of paradigm is unrealistic because he fails to consider the dynamic nature of science. Science is founded upon revision and is always changing; scientific revisions, and thus scientific advances, are made much more frequently than Kuhn asserts. While it may be true that scientific revolutions are rare, revisions in theory, thought, and concepts often occur—although they may not be nearly as dramatic as Kuhn argues. These revisions in scientific theory, thought, and concepts occur during what Kuhn would call, "normal science." To ignore these revisions in science—however minute they may be—is to ignore the overall dynamic nature of science. Science is not a static discipline.

Second, Kuhn's position on the incommensurability of paradigms is too radical. To assert that two rival theories share neither common meanings nor observations is far too extreme. Through the practice of constant revision, science effectively builds upon and extrapolates from earlier knowledge, theories, thoughts, and concepts. In 1973, philosopher Hartry Field criticized Kuhn's thesis of incommensurability. His analysis emphasized the indeterminacy of reference within unique theories. As an example, Field took the term "mass" and questioned the exact meaning of "mass" in post-modern relativistic physics. Through his work, he found that "mass" had two definitions: (1) relativistic mass and (2) "real" mass. The former was defined by mass equaling the total energy of the particle divided by the speed of light squared, whereas the latter was defined by the mass of a particle equaling the non-kinetic energy of a particle divided by the speed of light squared. Field then projected his findings onto Newtonian dynamics, thus formulating two hypotheses: (1) mass denotes relativistic mass and (2) mass denotes "real" mass. Field concluded that it would be impossible to decide which of these two hypotheses is true since, prior to Einstein's theory of relativity, "mass" was referentially



indeterminate; that is, mass was understood to be absolute. However, Field argues that “mass” in pre-Einsteinian physics meant something different than it means now. Therefore, a problem existed not within the meaning or interpretation of “mass,” but within its reference.<sup>6</sup> Given Field’s criticism, it can be seen that Kuhn’s belief that paradigms are incommensurable is far too radical.

Finally, Kuhn’s use of an evolutionary metaphor to explain science’s pursuit of truth is troublesome. Kuhn’s discussion of scientific progress and contention that science does not proceed to any predetermined truth is highly provocative. He maintains that science progresses as scientific theories become better articulated to accord with nature—that is, the solving of puzzles given by the working paradigm. Therefore, Kuhn’s notion of progress seems indicative of the belief that scientists are able to revise their theories, thoughts, and concepts to generate more accurate representations of nature, thereby approaching some sort of truth. Nonetheless, Kuhn used an evolutionary metaphor to illustrate his argument. Applying Darwinian gradualism—a slow and gradual mode of evolution that occurs through natural selection (modification of existing species over a long period of time)—is seemingly antithetical to Kuhn’s overarching argument about scientific progress. As Kuhn correctly notes, biological evolution is not Lamarckian in form—that is, biological evolution does not “progress” towards a directed goal. Kuhn likens the scientific process to that of Darwinian view of phyletic gradualism. However, he fails to take into consideration that unlike biological evolution, science *is* Lamarckian in form. Science *is* goal-oriented. Science *is* constantly improving.<sup>7</sup> Science is teleological but Darwinian evolution is not. Kuhn’s incommensurability theory cannot adequately respond to the question posed at the beginning of this essay (i.e. “What is the nature of scientific advancement and progression?”).

By exposing the apparent weaknesses within Kuhn’s position of the nature of scientific development, it is evident that, due to the dynamic and cumulative nature of science, Kuhn’s concept of paradigm is unrealistic, his belief that paradigms are incommensurable is too radical, and his use of an evolutionary metaphor to better illustrate his notion of scientific progress is troublesome.

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<sup>6</sup> Hartry Field, “Theory Change and the Indeterminacy of Reference,” *The Journal of Philosophy*, 70 (14): 462-481.

<sup>7</sup> Lawrence Eng, “The Accidental Rebel: Thomas Kuhn and The Structure of Revolutions,” (2001), <<http://www.cjas.org/~leng/kuhn.pdf>>.



#### IV. Science as a Greater Integer Function of Punctuated Equilibrium

Quickly reviewing what has been established thus far, (1) Kuhn claimed that science progressed towards no truth and only advanced through alternating practices of normal and revolutionary science—the adoption and abandonment of paradigms, (2) Kuhn’s concept of paradigm is unrealistic, (3) Kuhn’s belief that paradigms are incommensurable is too radical, and (4) Kuhn’s use of an evolutionary metaphor to illustrate his notion of scientific progress is troublesome.

Everything that has been covered to date explains and critiques Kuhn’s incommensurability theory on the nature of scientific progress as he inadequately attempts to respond to the questions posed at the beginning of this essay (i.e. What is the nature of science of scientific advancement and progression?). My answer to this question is to liken scientific progression to a greatest integer function of punctuated equilibrium. Thus, I attempt to reinstate the long-established notion that science is not a diminishing discipline but is, instead, a cumulative discipline.

Recall the greatest integer function (Diagram 1.0) introduced in the preface of this paper—a discontinuous piece-wise function that resembles a series of steps. The closed point indicates that the point is part of the graph, while the open point indicates that the point is not a part of the graph. The greatest integer function (step function) depicts a *cumulative* distribution of a random variable.

Recall, again, Eldredge and Gould’s theory of punctuated equilibrium. This evolutionary theory depicts long periods of stasis interrupted by relatively brief periods of sudden change. The theory of punctuated equilibrium, as seen in Diagram 1.1, also resembles a series of steps that depicts a *cumulative* distribution of evolutionary change.

Now both Diagram 1.0 and Diagram 1.1 depict these individual steps on a greater, more general staircase, called *progress*. By specifying the staircase to a certain type of progress (i.e. scientific progress), the apparent cumulative development of science could be visually understood. However, as Kuhn argues, paradigms are incommensurable. The translation of concepts and meaning from paradigm to paradigm becomes distorted. The likening of science to a greater integer function/step function accommodates the supposed loss of meaning of concepts from older paradigms to newer paradigms, as the transition from each “step” involves

the inclusion of all previous terms and concepts from the previous paradigm to the next paradigm (as represented by the closed point), leaving the reference point (open point) to be jettisoned. At the point of discontinuity, the only item of the previous paradigm left behind is the referential marker that indicated the point in time of the paradigmatic shift of theory.

The use of Darwinian gradualism as Kuhn's evolutionary metaphor for his interpretation of scientific progress was troublesome. However, perhaps Kuhn's desire to allude to an evolutionary metaphor to illustrate his notion of scientific progress was not so troublesome; perhaps Kuhn just used the wrong evolutionary theory.

Likening scientific progress to Eldredge and Gould's punctuated equilibrium theory is a better evolutionary metaphor for Kuhn's notion of scientific progress. As Eldredge and Gould contend, alternating long periods of environmental stasis and relatively brief stages of environmental change drive evolution. Kuhn maintains that scientific research in normal science adheres to a specific paradigm. The long periods of environmental stasis in [Diagram 1.1](#) could theoretically represent Kuhn's periods of normal science working in adherence to a specific paradigm. The relatively brief stages of environmental change could represent Kuhn's revolutionary science working on transitioning from an old paradigm to a newly formulated one. Thus, the alternating periods of environmental stasis and brief stages of environmental change could represent Kuhn's idea of a mature science working in alternating periods of normal and revolutionary science.

Putting Kuhn's work in context, the 1960's documented a wave of social revolutions. It is not surprising that a book as radical as Kuhn's gained much attention from academia. Radical movements of social change were occurring during the time Kuhn's *Structures* was published. Revolts against conservative norms and social conformity were occurring; the feminist movement was gaining momentum; the gay rights movement was taking flight; the Hispanic and Chicano Movement was taking place; and the African-American Civil Rights Movement was well underway. The modern West (particularly the U.S.) was in the midst of what Kuhn called a "crisis." It is not surprising that Kuhn's *Structures* was published during these happenings. As previously mentioned, prior to Kuhn's publication, science was always perceived to be a cumulative, objective, and rational discipline.

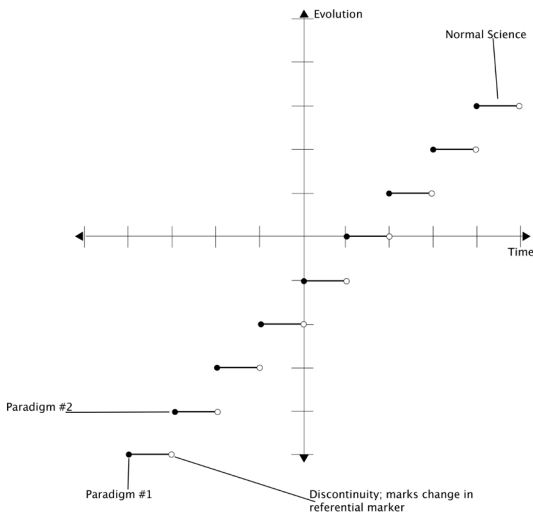


Scientists and philosophers of science prior to Kuhn practiced what Kuhn would describe as “normal science,” functioning under a certain “paradigm.” Likening the aforementioned to the theory of punctuated equilibrium, it could be argued that prior to Kuhn, science and philosophy of science were both stuck in a long period of “stasis.” The publication and circulation of Kuhn’s *Structures* marked the “revolution” or “abrupt change” during the “stasis” of the long adhered to “paradigm.” The “crisis” preceding the “revolution” could have been the social revolution of the U.S., during *Structures* debut. By likening the stable environment pre-1960’s (pre-publication of Kuhn’s work) to the stable environment stasis in the punctuated equilibrium theory as depicted in [Diagram 1.1](#), and by likening the abruptly changing environment of Kuhn’s time to the abruptly changing environment that causes speciation in the punctuated equilibrium theory, Kuhn’s work becomes contextualized and metaphorically understood through Eldredge and Gould’s evolutionary theory.

Combining the greatest integer function with Eldredge and Gould’s theory of punctuated equilibrium could allow for a reformulation of Kuhn’s initial evolutionary metaphor that better explains his notion of scientific progress and simultaneously depicts science as a cumulative discipline.

Each closed circle on the graph represents a paradigm or scientific discovery, whereas each open circle on the graph (discontinuity) represents a referential marker indicating the point in time at which a new paradigm was deemed necessary due to the accumulation of scientific anomalies in the previous paradigm. Each line segment connecting the paradigm to the discontinuity represents a period in which normal science had been practiced. However, unlike the punctuated equilibrium theory where each horizontal line segment represented a period of environmental stasis, each line segment depicted in [Diagram 4.0](#) represents a multitude of active particles that behave in a continuous, linear oscillation akin to the behavior of waves and particles as postulated by the wave-particle duality theory. These oscillating particles are representing the constant revisions—minute and enormous—made within the practice of science. [Diagram 4.0](#) represents science as a cumulative process that pictorially documents the progress of science and visually depicts the transformation, revolution, and improvement of the discipline of science through the use of a greater integer function of punctuated equilibriums.

Diagram 4.0 The Progress Staircase of Science as a Greater Integer Function of Punctuated Equilibrium



## V. Conclusion

As Paul Teller states, “We start with inexact, prescientific, representational tools. Using these we solve certain problems by correcting, extending, and refining our means of representation, which are then absorbed back into the overall conceptual toolkit.”<sup>8</sup> Representations in science are cumulative. The nature of science is dynamic. Science is endemic to our society because it *is* Lamarckian in form and it *is* in the constant pursuit of truth. The process of improvement in accuracy and precision is continuous.<sup>9</sup> The provisional nature of science is what grants it the ability to continually improve and progress. The more it revises, changes, and improves, the more accurate and precise the discipline will become. Controversy and discussion of competing theories and facts is a sign that good scientific advancements are in development. Having utilized a mathematical and evolutionary

<sup>8</sup> Paul Teller, “Representations in Science,” *The Routledge Companion to Philosophy of Science*, eds. Stathis Psillos and Martin Curd (New York: Routledge, 2008): 440.

<sup>9</sup> *Ibid.*, 440.



metaphor to illustrate and reformulate Kuhn's notion of scientific progress, I have attempted to respond to the question posed at the beginning of this essay by restating the long-established notion that science is *not* a diminishing discipline but is, instead, a *cumulative* discipline. ❖

# Descriptions of Scientific Revolutions: Rorty's Failure at Redescribing Scientific Progress

Kyle Cavagnini

**Abstract:** The twentieth century saw extended development in the philosophy of science to incorporate contemporary expansions of scientific theory and investigation. Richard Rorty was a prominent and rather controversial thinker who maintained that all progress, from social change to scientific inquiry, was achieved through the redescription of existing vocabularies. However, this theory fails to describe revolutionary scientific progress. Thomas Kuhn's theories of paradigm change, as first described in his seminal work *The Structure of Scientific Revolutions*, better portray this process. I attempt to show this by applying Kuhn's and Rorty's views to examples of scientific progress and comparing the results.

Richard Rorty was arguably one of the most controversial thinkers of the latter twentieth century. His embrace of neo-pragmatism inspired a renewed interest in the pragmatic tradition of the philosophical community at large and precipitated countless debates in contemporary philosophical studies. Among his many problematic claims is his assertion that any type of progress is achieved through redescription of previous vocabularies. I will argue that this theory has dangerous implications when applied to revolutionary scientific advance. Redescription ultimately fails to account for the change that occurs during such periods in scientific practice, and is ultimately disingenuous towards that progress. Thomas Kuhn's theories, as they first appear in *The Structure of Scientific Revolutions*



and as they evolve over the course of his life, provide an answer to this failure, and ultimately provide a more accurate means of describing revolutionary scientific progress.

The philosophical project of Thomas Kuhn was to provide a model of scientific progress that could account for the revolutionary spectrum of scientific practice. Kuhn, in his influential work *The Structure of Scientific Revolutions*, proposed that revolutionary science is the shifting from one paradigm to another. Kuhn described a paradigm as a set of theories, practices, and exemplars that define the conceptual mindset and occupation of science for a set period. Kuhn later suggests that the term “disciplinary matrix” might better serve his purpose. The disciplinary matrix is “the common possession of the practitioners of a professional discipline” that sets the conceptual foundation for the work done within that field.<sup>1,2</sup>

### I. Rorty and Redescription

Richard Rorty believed that previous eras of philosophy focused on working within what he called their respective final vocabularies. These final vocabularies mediated the ways in which they “judged their actions, their beliefs, and their lives.”<sup>3</sup> The concept of final vocabularies is not limited to philosophical inquiry, however, but extends out to every aspect and project of human existence. Any practice, action, idea, or statement is made within the bounds of one’s own final vocabulary, the cultural and personal foundations in which one’s beliefs, actions, and practices are constructed and described. Rorty argues that confining one’s self to working within a single category leads to intellectual, cultural, and personal stagnation. To address this, Rorty introduces the concept of the ironist and ironic redescription.

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<sup>1</sup> Thomas Kuhn, “Second Thoughts on Paradigms,” in *The Essential Tension: Selected Studies in Scientific Tradition and Change* (Chicago, University of Chicago Press, 1977): 297.

<sup>2</sup> I shall use the term disciplinary matrix and paradigm interchangeably throughout this paper. We shall see that this system of paradigm change better models revolutionary scientific practice than does Rorty’s concept of redescription.

<sup>3</sup> Richard Rorty, *Contingency, Irony, and Solidarity* (Cambridge: Cambridge University Press, 1989): 73.



An ironist is an individual who, in Rorty's words, "has radical and continuing doubts about the final vocabulary she currently uses" such that "she does not think her vocabulary is closer to reality than others."<sup>4</sup> To overcome these doubts and to reinvestigate the situation, the ironist uses redescription. Because previous explanations do not satisfy every need, the ironist recasts her vocabulary, changing and modifying it until it works for her current situation. This redescription changes the basis of one's final vocabulary, shifting those foundations in some way such that a change is made to address the inadequacies that arise within a given final vocabulary, and by extension within the situation of a culture and an individual. However, once the vocabulary is no longer able to describe the ironist's situation, she once again embarks on the path of redescription, entering into a never-ending cycle of redescription and "re-re-redescription."<sup>5</sup>

The ironist's project is not wholly private; it is instead a social phenomenon. The ironist redescribes in hopes of "inciting people to adopt and extend" their ideas and beliefs.<sup>6</sup> Through adding new meaning to old words and creating "neologistic jargon" the ironist essentially wishes to change the final vocabulary of the day by "[comparing] the results [of the redescription] with alternative redescrptions," and through this process incite some sort of personal, social, scientific, or cultural progress.<sup>7,8</sup>

While this process of redescription may seem to work for select circumstances, one falls drastically short when applying the concept of continual redescription to science. Within scientific progress, specifically in regards to revolutionary scientific progress, one cannot simply redescribe the current scientific theories and expect to have a new conceptual framework as a result. In addition, one must be able to make a statement that one scientific theory better describes observed phenomena than another, something for which redescription does not allow.

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<sup>4</sup> Ibid.

<sup>5</sup> Ibid., 80.

<sup>6</sup> Ibid., 78.

<sup>7</sup> Ibid.

<sup>8</sup> Ibid., 80.



Consider the changes that have occurred in physics over the past two centuries. In Newtonian mechanics, concepts such as velocity, momentum, position, and energy were absolute. There were debates about how to come up with more accurate modifications to theories, but these modifications were always done with the classic work of Newton's *Principia* in mind. However, with Faraday's discovery of cathode rays in 1838 and the subsequent failure of Newtonian mechanics to account for the very small, it became apparent that a new theory was needed to account for radiation. This debate continued for the rest of the nineteenth century until, in 1900, Max Planck hypothesized that energy radiating from an atomic system could be described in terms of quanta, or discrete elements.<sup>9</sup> Out of this concept came Einstein's proof of the photoelectric effect, Heisenberg's Uncertainty Principle, the Bohr model of the atom, and a whole new era in physics. To make matters worse for Newton, Einstein also proposed his general and special theories of relativity during the first two decades of the twentieth century. These two theories showed that space and time are essentially relative, not absolute. The classic Newtonian definitions could no longer be accepted as wholly true, and Newtonian mechanics were essentially shown to apply only as a special case.

To give a further example of such revolutionary scientific progress, consider the discovery of DNA's structure by Watson, Crick, and Franklin. While the nineteenth century monk Gregor Mendel had, in his various pea studies, described measurable trait inheritance from one generation to the next, the exact biological mechanism of this phenomenon was still unknown. There was speculation in the first half of the twentieth century that proteins might play some role, yet specific theories always came up against some insurmountable hurdle. With the 1953 discovery of the double-helix structure of DNA, however, the answer to this mystery was immediately discerned. As Watson and Crick said in their seminal paper "it has not escaped our notice that the specific pairing we have postulated immediately suggests a possible copying mechanism for the genetic material."<sup>10</sup> From the structure they discovered, a new biotechnology revolution has been occurring in the

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<sup>9</sup> Werner Heisenberg, "The History of Quantum Theory," *Physics and Philosophy: The Revolution in Modern Science* (New York: Harper Perennial, 1958).

<sup>10</sup> J. Watson and F. Crick, "Molecular Structure of Nucleic Acids," *Nature* 171, no. 4356 (1953): 738.

biological sciences for the past six decades, with achievements ranging from being able to describe the molecular basis of genetic inheritance in all known life to the sequencing of the human genome.

If we were to apply redescription to these events, it would fall short. These scientific revolutions, these amazing bursts of insight and discovery, were not achieved through a redescription of previously existing concepts. Instead, they created their own theories that, while built off of a previous knowledge base, shattered the previously held models of the universe. Old theories were not redescribed, but were improved upon and, indeed, *surpassed*. Note the above passage where Rorty calls for an extension and adaptation of ideas through redescription. Revolutionary scientific progress does not extend out from a common basis in a discipline, but instead calls for that basis to be completely reformulated in a new paradigm. To apply this to the previous physics example, for quantum mechanics to come about, physics had to move beyond the traditional definitions of momentum and position, replacing them with probabilities for the very small. Similarly, special and general relativity needed concepts of space and time to change from fundamental constants to corresponding constructs. Redescription extends the previous paradigm outward, but it does not allow for a new disciplinary matrix in the full sense of Kuhn's theories.

Classical mechanics cannot be redescribed to give the conceptual framework of quantum mechanics. Again, in classical mechanics momentum and position were simply separate concepts that, while one could be used to predict the other, never infringed upon each other. However, in quantum mechanics, Heisenberg's Uncertainty Principle states that certain properties, such as position and momentum, have a relationship such that the more accurately one value is measured, the less accurately one will be able to determine the other. Such an inter-relationship would never have been conceived in classical mechanics, much less taken to be a statement about our ability to describe the universe. The ironist's linguistic manipulations and language games cannot account for such revolutionary changes in prior conceptual frameworks. Words that were previously outside of the scientific vocabulary entered into it because they were needed to describe the new findings that the existing vocabulary could not accurately portray, not because



Planck, Einstein, or Crick were playing Rortian language games. As Rorty said, “ironists specialize in redescribing ranges of objects or events in partially neologistic jargon.”<sup>11</sup> New words *do not* equal new scientific theories.

## II. Kuhn and the Structure of Revolutionary Science

In Kuhn’s theories, science preoccupies itself for the majority of the time in normal science. Normal science is any research, theorizing, or experimentation that is “firmly based upon one or more past scientific achievements” that are recognized as “foundational” for the current practice of that discipline.<sup>12</sup> In other words, normal science is the practice of a scientific community working to expand the purview of the current disciplinary matrix, teasing out all the areas to which the contemporary scientific theories can be applied.<sup>13,14</sup> To relate this to our previous example, prior to the quantum mechanical revolution, the Newtonian paradigm was used. The vast majority of physics during the seventeenth, eighteenth, and nineteenth centuries was concerned with the expansion of classical mechanics to describe various observed systems, such as gas behavior, chemical reactions, and thermodynamics. However, once those theories were seen to fall short in describing certain phenomena the new quantum mechanical paradigm was proposed as a counter to classical mechanics, and there is a latent possibility that a similar situation may arise within quantum physics at some point in the future.

Revolutionary scientific progress occurs when the current paradigm is unable to describe certain existing or newly observed phenomena. In fact, this is implicit within the concept of normal science; a disciplinary matrix, while it is able to explain many problems within that field, “need not, and in fact never does, explain

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<sup>11</sup> Rorty, *Contingency, Irony, and Solidarity*, 78.

<sup>12</sup> Thomas S. Kuhn, *The Structure of Scientific Revolutions*, 3<sup>rd</sup> ed. (Chicago: University of Chicago Press, 1996): 10.

<sup>13</sup> This is very similar to Rorty’s concept of redescription, and it could be argued (perhaps accurately) that Rorty’s structure for changing vocabularies encompasses what Kuhn calls “normal science.” However, this breaks down when one looks at the special, and in many ways foundational, case of revolutionary scientific progress.

<sup>14</sup> For a specific account of a normal science process in the twentieth century (notably in the closing section “Philosophical Implications”) see: Richard M. Pagni, “The origin and development of the acidity function,” *Foundations of Chemistry: Philosophical, Historical, and Interdisciplinary Studies of Chemistry* 11, no. 1 (2009): 43-50.

all the facts with which it can be confronted.”<sup>15</sup> This ever-present, essential tension in normal science is what eventually catalyzes scientific revolution. Scientific revolution can in many ways be viewed as the abnormality within scientific progress. Indeed, most scientists “[aim] to elucidate the... tradition in which [s]he was raised rather than to change it.”<sup>16</sup> However, when there arises a problem such that it “[refuses] to be assimilated into existing paradigms,” that “[calls] into question explicit and fundamental generalizations of the paradigm,” science finds itself within a crisis.<sup>17,18</sup> The previous exemplars of a conceptual background cannot adequately be applied, and normal science no longer functions optimally. It is in this climate that revolutionary science will arise.<sup>19</sup> If a proposed theory is better able to explain the crisis-producing anomalies and provide a framework that can be utilized in researching other problems within the field, then the scientific community at large might accept the new paradigm. As Kuhn put it, this “transition to a new paradigm is scientific revolution.”<sup>20,21</sup>

To once again return to our examples, the quantum revolution applies not only to the proposal of quantum mechanics to explain the failings of classical mechanics, but also to its propagation into the scientific community as more and more scientists began to use the quantum paradigm as their disciplinary matrix. This resulted in what could be viewed as a feud between adherents of the two schools, with the members of the quantum mechanical paradigm eventually becoming the predominant body of thought through their ability to better explain the experimental phenomena emerging in the early twentieth century. To reiterate the point, redescription could not have produced such an effect. Thomas Young’s classic

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<sup>15</sup> Kuhn, *The Essential Tension*, 234.

<sup>16</sup> *Ibid.*

<sup>17</sup> *Ibid.*, 97.

<sup>18</sup> *Ibid.*, 82.

<sup>19</sup> See: Paul Hoyningen-Huene, “Thomas Kuhn and the Chemical Revolution,” *Foundations of Chemistry: Philosophical, Historical, and Interdisciplinary Studies of Chemistry* 10, no. 2 (2008): 101-115.

<sup>20</sup> *Ibid.*, 90.

<sup>21</sup> It should be noted that Kuhn was interested in the theory only, and as such this paper is discussed within that limit. Recent developments in philosophy of science have put forth systems that incorporate experimentalism with the theoretical basis to better describe the everyday practice of science (the “normal” science). For such a development involving Kuhn’s theories, see: James A. Marcum, “Horizon for Scientific Practice: Scientific Discovery and Progress.” *International Studies In The Philosophy Of Science* 24, no. 2 (2010): 187-215.



double-slit experiment provides an excellent example of this. In 1801, Young devised an apparatus that passed light through two layers of material, the first having one slit through which the light could pass and the second having two. After passing through the slits the light was detected by a photometric plate. Young used the results obtained within the bounds of *classical mechanics* to explain the wave nature of light. However, the experiment was revisited by early quantum physicists and even used by Einstein as one confirmation of his theory of the photoelectric effect (for which he won the 1921 Nobel Prize in Physics).<sup>22</sup> The experiment was understood in light of a new disciplinary matrix; it was adopted as an extension of quantum, not classical, mechanics in that it showed the wave-particle duality of light.

This new understanding was not a redescription of terms or vocabularies used to describe the original conclusions of the experiment, but was a changing of the underlying conceptual basis used to interpret the results. Heisenberg said that Newtonian physics was a closed system of knowledge, and as such no further improvements could be made to the framework.<sup>23,24</sup> The vocabulary of that previous paradigm could in no way conceptualize the new concept of light as both wave and particle, and thus could not be redescribed into the emerging quantum theory.

However, the case is somewhat different with the discovery of DNA's structure. Instead of an argument around a previously held disciplinary matrix, the scientific community was more fluid about what was accepted as the molecular basis of inheritance. Out of this murk of various theories, the discovery of DNA's structure almost overnight revolutionized a field. In many ways, one could view the preceding decades, in which it was known that there was a yet unidentified molecular mechanism of inheritance, as an extended period of scientific crisis. The structure of DNA provided an answer to this crisis that was readily accepted by most, if not all, of the members of the field as the material from which a new disciplinary matrix could be built. The discovery of the molecular origins of inheritance, coupled with the ongoing biotechnology revolution that has lasted the past six decades and continues through today, has provided an environment in which members of the molecular biology

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<sup>22</sup> Niels Bohr, "Discussions with Einstein on Epistemological Problems in Atomic Physics," *Atomic Physics and Human Knowledge* (New York, NY: Dover Publications, 2010): 32-66.

<sup>23</sup> Ian Hacking, "The Self-Vindication of the Laboratory Sciences," *Science as Practice and Culture*, ed. Andrew Pickering, (Chicago, IL: University of Chicago Press, 1992): 39.

<sup>24</sup> Alisa Bokulich, "Heisenberg Meets Kuhn: Closed Theories and Paradigms," *Philosophy of Science* 73 (2006): 90-107.

community have been readily able to solidify the paradigmatic basis of their field.<sup>25</sup>

### III. Redescription's Ultimate Failure

Kuhn's work provided a new framework in philosophy of science that garnered much attention, leading some of his theories to be adopted outside of the natural sciences. Unfortunately, some of these adoptions have not been faithful to Kuhn's original theories, and at times just plain erroneous conclusions are drawn that use Kuhn as their justification. These misreadings not only detract from the power of Kuhn's argument, but also serve to add false support for theories that Kuhn was very much against; Rorty was one such individual. Rorty claimed that Kuhn was "one of [his] idols" who very much influenced his own thought.<sup>26</sup> Rorty claims that Kuhn's arguments provide support for his own theories of redescription by showing that any revolutionary change in theory is simply a matter of "changing the terminology in which truth candidates [are formulated]."<sup>27</sup> This view is considerably relativistic in that Rorty is justifying that "there is no single model for good work in an academic discipline, that the criteria for good work have changed throughout the course of history, and will continue to change."<sup>28</sup> Rorty describes the realization of this process across disciplines as "Kuhnianization."<sup>29</sup>

These claims and passages take liberties with Kuhn's theories that are neither justified nor accurate, particularly in the domain of the natural sciences. By using Kuhn's theories to explain his own relativistic ones, Rorty would like to place the same relativist label on Kuhn. By redescribing not only the vocabulary of a discipline, but also the foundations of a discipline itself, Rorty's theories posit that there is absolutely no way of saying one scientific theory is better than another (Later in life he tries to back away from this position and equate scientific progress with moral progress, but his argument ultimately falls back into the extensive

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<sup>25</sup> The field of molecular biology leads nicely into the investigation of the interplay between paradigm and instrumentation, and the means by which changing instrumentation can result in changing paradigms. See Hacking (1992) for an extended discussion of this reciprocity.

<sup>26</sup> Richard Rorty, "Thomas Kuhn and the Laws of Physics," *Philosophy and Social Hope* (London: Penguin, 1999): 175.

<sup>27</sup> *Ibid.*, 176.

<sup>28</sup> *Ibid.*, 181.

<sup>29</sup> *Ibid.*



relativism that is one marker of its failure to apply to science). Kuhn distances himself from the relativism of Rorty, explicitly stating that his theories are “not a relativist’s position.”<sup>30</sup> He feels completely justified in saying “one scientific theory is not as good as another for doing what scientists normally do” in that some are better able to model and predict observed phenomena and puzzles.<sup>31</sup> Rorty gives this some slight acknowledgment, however it is clear that the overall message he takes from Kuhn is that because of the ineffectiveness of debating whether Aristotle’s or Newton’s physics was “more scientific,” one is justified in taking a relativistic stance towards scientific paradigms.<sup>32</sup> This ignores the “shared and justifiable... standards that scientific communities use when choosing between theories,” both within a paradigm and during a period of paradigm shift.<sup>33</sup>

Central to the ironist’s concept of progress is the construction of narratives. The narrative is the way through which the ironist redescribes vocabularies and achieves some sort of progress. Let us consider the role of the narrative in science to see how Rorty’s redescription again falls short. Central to the goals of science and scientific progress is the scientific narrative. In science, one approaches a problem with a set strategy to obtain as much data supporting a hypothesis as one can, given restraints of equipment, time, money, and materials. Science is a discipline of “puzzle-solvers,” where the puzzles are along the lines of “what malfunctioning proteins cause cancer” or “what atmospheric conditions give rise to harmful oxidative reactions.”<sup>34</sup> To solve the puzzle, the scientist must utilize her own previous knowledge to devise a way in which some effect can be measured that would provide supporting evidence for the occurrence or absence of a phenomenon. To present this data to other scientists, the investigating researcher integrates the evidence gathered to assemble a narrative of how the observed experimental results support the claim the scientist has put forth. The way in which the scientist constructs this narrative, down to the methods used to gather data, is invariably

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<sup>30</sup> Kuhn, *The Structure of Scientific Revolutions*, 206. (emphasis added)

<sup>31</sup> Thomas S. Kuhn, James Conant, and John Haugeland, *The Road Since Structure: Philosophical Essays, 1970-1993, with an Autobiographical Interview* (Chicago: University of Chicago Press, 2000): 160.

<sup>32</sup> Rorty, “Thomas Kuhn and the Laws of Physics,” 179-180.

<sup>33</sup> Kuhn *et al.*, *The Road Since Structures*, 76.

<sup>34</sup> Kuhn, *The Structure of Scientific Revolutions*, 205.



bound within the disciplinary matrix of the scientist. One purpose of *The Structure of Scientific Revolutions* was to show that science did not progress as one linear, unbroken line, but instead was characterized by periodization.<sup>35</sup> This periodization can be thought of as the progression from one paradigmatic narrative to another.<sup>36</sup>

In revolutionary scientific progress, the tension begins when the current paradigm is unable to account for a significant selection of observed phenomena. Consequently, the community of a discipline must eventually overcome this tension with a new paradigm, one that is better able to describe observations and properly explain the short-comings of the previous disciplinary matrix. Rorty's ironists, however, "are content with mere difference."<sup>37</sup> This lack of concern for the progression of accuracy is alarming when applied to science. When paradigms are compared there is more than mere difference, there is a direct comparison between results obtained. The goal is that one paradigm will provide the more accurate description/model of the problem(s) which caused the tension to arise within the discipline; one paradigm will provide an answer that better explains and incorporates the observed phenomena than the other. Thus, via comparisons across the results obtained by different paradigms, one is able to move beyond mere difference and make a distinct statement about progress, a step that the relativist Rorty does not allow.

Kim points out that for Rorty the goal of philosophy is not striving towards philosophical truth, as there is no such truth for Rorty.<sup>38</sup> Therefore, progress from vocabulary to vocabulary (what Kim calls the tension between edifying and systematic

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<sup>35</sup> This bears an amusing yet accurate resemblance to the concept of Punctuated Equilibrium in evolutionary biology. This analogy has been criticized by some, but a refutation of such (erroneous) criticisms can be found in: Thomas A.C. Reydon and Paul Hoyningen-Huene, "Discussion: Kuhn's Evolutionary Analogy in *The Structure of Scientific Revolutions* and "The Road since Structure," *Philosophy of Science* 77 (2010): 468-476.

<sup>36</sup> This is not to be confused with the narratives of normal science.

<sup>37</sup> Rorty, *Contingency, Irony, and Solidarity*, 101.

<sup>38</sup> Jaegwon Kim, "Rorty on the Possibility of Philosophy," *The Journal of Philosophy* 77, no. 10 (1980): 588-597.



philosophy) is not searching for some sort of truth. Rather, it is a means of progressing a dialogue so that the boundaries of philosophical discussion may be pushed into different, (hopefully) novel directions.<sup>39</sup>

Rorty states “the liberal ironist does not think her vocabulary is closer to reality than others.”<sup>40</sup> The failure to make a judgment between theories about reality essentially nullifies any claim redescription can hope to have on describing scientific progress, as science is essentially using experimental methods and observations to inform paradigms, and vice versa, towards elucidating details about the world. One is able to say that the physics of Heisenberg and Bohr is a better representation of reality than that found in Aristotle’s *Physica vis-à-vis* experimental observation because “later scientific theories are better than earlier ones for solving puzzles... That is not a relativist’s position, and it displays the sense in which [Kuhn is] a convinced believer in scientific progress.”<sup>41</sup> In Kuhn, progress through paradigms is marked by the improvement of science as a “better instrument for discovering and solving puzzles.”<sup>42</sup> It is precisely because we are able to say one theory is more effective (and accurate) at describing reality that we are able to have any kind of scientific progress at all.<sup>43</sup>

Kuhn was aware of the dangerously mistaken manner of approaching scientific progress expressed by Rorty. In discussing the nature of paradigm shifts and how they direct future research, he says that while a “restatement,” or redescription of an old theory within a new theory could have some utility, it ultimately “could not suffice for the guidance of research” unless the concept has been fully

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<sup>39</sup> For Rorty, this discussion involved moving beyond philosophical dialogue as pertaining to “philosophical problems” only, instead focusing on the role of philosophy in practice via interaction with select disciplines.

<sup>40</sup> Rorty, *Contingency, Irony, and Solidarity*, 73.

<sup>41</sup> Kuhn, *The Structure of Scientific Revolutions*, 206.

<sup>42</sup> *Ibid.*

<sup>43</sup> Whether or not what we have is a “true” representation is cultural interpretation, and that will change over time as theories improve and sentiments evolve. However, that does not mean the goal of finding that which maps onto observed phenomena is any less valid. We use the exemplars, the equations, and the theories that best explain the answer, as determined by the community of a scientific discipline. If we are to completely exclude the possibility of ever achieving a valid representation of reality, then we are to exclude the practice of science itself from our everyday lives in the sense that science strives to elucidate reality from the paradigm that it finds itself situated within historically.

incorporated into the new paradigm.<sup>44</sup> The languages between past and current paradigms are not equivalent, and thus redescription is simply an inescapable recycling of the current scientific descriptions. As Kuhn succinctly put it, “one cannot get from the old to the new simply by an addition to what was already known.”<sup>45</sup> Redescription ultimately fails to provide a conceptual grounding for explaining revolutionary scientific progress because it claims that one *can* get to the new by addition to the old. Kuhn is able to account for this failure in that his theories for progress from paradigm to paradigm do not allow for simple addition of knowledge, but instead call for a questioning, revisiting, and reformulation of previously held notions within specific disciplines, and those underlying science as a cultural practice itself. In this one does not simply add new knowledge, but changes the very way in which we understand and interpret results in the world through the scientific narrative. ❖

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<sup>44</sup> Kuhn, *The Structure of Scientific Revolutions*, 103.

<sup>45</sup> Kuhn *et al.*, *The Road Since Structures*, 15.



# Kept Down By the Man, Damn the Man: The Figurative and Literal Alienation of Women

Amanda Frankel

**Abstract:** While Feminism and Marxism each promote revolution in the name of equality, Feminist struggle is dismissed by Marxism. As workers, women face the capitalist narrative, but women's alienation is deeper than mere Marxist alienation. Women face the additional narrative of the patriarchy. This paper seeks to show that true Marxist revolution is impossible unless it is preceded by a Feminist revolution that breaks gender and sexual stigmas.

## Preface

Sandra Cisneros remarks, “My feminism is humanism, with the weakest being those who I represent, and that includes many beings and life forms, including some men.”<sup>1</sup> Feminism and Marxism both call for the end of alienation and a reconstruction of society based around liberation. However, there exists a fine line between the two. For feminism, it is the decomposition of the patriarchal society ending in universal gender equality; for Marxism, it is the withering away of the

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<sup>1</sup> Cisneros, S. Interview by M-A Oliver-Rotger [Personal Interview]. *Interviews & Readings*, University of Minnesota. January/February 2000. <[http://voices.cla.umn.edu/readings/cisneros\\_sandra.html](http://voices.cla.umn.edu/readings/cisneros_sandra.html)>.



capitalist state, ending in liberation in the form of species being. Marxism does not include feminism in its revolution, therefore, the latter must have its own revolution to achieve true human liberation prior to joining the fight for class equality.

This paper will explore the nature of exploitation through Marxist and Feminist oeuvres and economic data. It will analyze the female role in the workplace, the home, and in the overall male narrative. One will see that the Marxist makes a case for woman as a commodity rather than as a member of a universal class involved in economic struggle, thus weakening claims of commonality between Marxism and Feminism. Ultimately, the paper will address and promote the concept of *feminist* liberation as *universal* liberation through the deconstruction of the patriarchal narrative and call for societal reconstruction

### I. The Devil in the Details

The Feminist literature is vast, from Wollstonecraft to Hartmann. Despite minor differences in rhetoric and time, it can be condensed into one theme: the universal abolishment of gender classes.<sup>2</sup> Feminism, as a complete theory, “offers a moral vision of women, in all their diversity, and [a vision] of social justice [...] while enabling...] men and women to re-experience and re-form themselves.”<sup>3</sup> Common misconceptions argue that feminism focuses solely on the rights of women. This idea is false; it focuses on the use of *human* rights to eradicate stigmas associated with all genders and sexualities, essentially devising a system *sans* classifications based on constructed terms.

This desire to deconstruct society for the betterment of human rights is also seen in Marxist literature. Theoretically, Marxism is constructed around and committed to the material world.<sup>4</sup> Marx views this movement as the “positive abolition of private property, of human self-alienation, and thus the real appropriation

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<sup>2</sup> Mary Wollstonecraft, “A Vindication of the Rights of Women” in *Dogmas and Dreams: A Reader In Modern Political Ideologies* (3rd), ed. Nancy Love (Washington D.C.: CQ Press, 2005): 481-488 and Heidi Hartmann, “The Unhappy Marriage of Marxism and Feminism: Towards a More Progressive Union” in *Dogmas and Dreams*, 497-516.

<sup>3</sup> Love, ed. *Dogmas and Dreams*, 471.

<sup>4</sup> While Marxism is typically synonymous with socialism and communism, I am referring to the theory as “Marxism” to alleviate confusion with the practical application rather than the theoretical adaptation, which is the focus of the paper.

of human nature through and for man.”<sup>5</sup> Whoever controls the means of production and natural resources controls the material narrative as materialism precedes abstraction. In other words, because the capitalist has fundamental control, the narrative (art, economics, law, politics, philosophy; i.e. culture) is tailored to benefit that particular class. For Marx, alienation is brought on by exploitation born from the dehumanized experience. The worker becomes the very commodity s/he produces. Consequently, such dehumanization drives the worker to revolt against the capitalist narrative.

The concept of a society in the throes of privileged elite is no stranger in feminist theory either. Feminine notions and the construction of the ‘woman’ are bound to a sexual identity created by a patriarchal narrative where one need only replace Marx’s bourgeoisie with the patriarch to see the similarities. Women’s roles dictated throughout history follow the Hegelian evolution of thesis, antithesis, and synthesis because they must; their dialectic is that of sex domination. Simone de Beauvoir states, “One is not born woman, one becomes one.”<sup>6</sup> One is born a human, void of any class designation whether on account of gender, sex, or economic class and is then assigned a role determined by a society governed by the more powerful in each of those distinctions. Wollstonecraft notes the power dynamic never shifts in favor of women: before marriage, it is a woman’s job to please men and afterwards, it is no different—willingly conforming to the standards set by men.<sup>7</sup> This willingness, however, is born from the male narrative.

At first glance, the Marxist worker and the woman are presented in similar situations: alienated, exploited, and trapped. Yet, it is the female who battles two narratives:

[O]nce workers have the franchise and the full right to organize collectively and once ascriptive barriers to equal opportunity have been eliminated, class oppression would disappear. Once

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<sup>5</sup> Karl Marx and Eugene Kamenka, ed., *The Portable Karl Marx* (Middlesex: Penguin Books, 1983): 149.

<sup>6</sup> Brigid Haines, “Beyond Patriarchy: Marxism, Feminism, and Elfriede Jelinek’s “die Liebhaberinnen,” *The Modern Language Review* 92.3 (1997): 643.

<sup>7</sup> Wollstonecraft, “A Vindication of the Rights of Women,” 483.



women are accorded full citizenship and reproductive rights and once antidiscrimination procedures are firmly in place, gender oppression would be eliminated.<sup>8</sup>

Where Marx's *economic* classes take center stage, feminism seeks to "[eliminate] power and welfare differentials between men and women."<sup>9</sup> When these two forms of oppression synthesize, they create a degree of alienation made difficult to resist. Levins notes that during the 1940s, "male-dominated unions and parties saw women in the workforce as a threat to men's employment and called for a family wage that would allow a man to keep 'his' woman and children."<sup>10</sup> A family wage would keep women at relatively lower levels. Almost seventy years later, the World Bank reports for the United States, in 2006, 31% of the employees in the industrial sector were male and only 9% were female.<sup>11</sup> In that same year, overall labor participation displayed similar contrasts: women held 59% of all labor participation, men held 73%. The large statistical discrepancies suggest there is some force seemingly greater than the Smithsonian "Invisible Hand" at work.

## II. The Commoditized Woman

Not only is the woman property of the capitalist system, she is also bound to the familial aspect of society. There must not only be production in the workforce, but the woman must also be responsible for reproduction, transcending to a greater duty of buttressing home life.<sup>12</sup> By being perceived as property, women, "like commodities[,] are valued according to an exterior system of value. This places them in competition with each other, subjects them to a schism between private and social use, and renders them liable to the fetishization as a manifestation

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<sup>8</sup> Erik O. Wright, "Explanation and Emancipation in Marxism and Feminism," *Sociological Theory* 11.1 (1993): 41.

<sup>9</sup> *Ibid.*, 41.

<sup>10</sup> Richard Levins, "Continuing Sources of Marxism Looking for the Movement as a Whole," *Monthly Review* 62.8 (2011): 36.

<sup>11</sup> Industry, or rather the manufacturing sector, is held to the light here rather than the agriculture or services sector because of its stigma of masculinity. Furthermore, this specific sector has historical breadth unlike the services sector, and therefore functions as a controlled experiment allowing for one to trace the progress made by gender.

<sup>12</sup> Levin, "Continuing Sources of Marxism," 37.

of the power of the phallus.”<sup>13</sup> The more the woman produces, the more commoditized she becomes, though in a different sense than Marx’s worker who becomes inorganically alienated from material creation.

For a woman to be “valuable,” she must adhere to a set of standards and beliefs determined by society. If one looks at pop culture, one can see the physical result and consequences of this conformity to the male generated beliefs. During Halloween, costume choices for women are limited to hyper-sexualized outfits: the cop, the nurse, the nun, the teacher. The woman is bound to a sexual identity cultivated by society’s demands to highlight the physical, most appealing aspect of a woman. Is it pure irony that an estimated 90% of people with eating disorders are women and only 10% are men?<sup>14</sup> A woman’s potential is judged by how well she fits the fantasy projected onto her. It is no surprise then that socio-cultural peer pressure has begun to “promote body image [...] and eating disturbances in young women.”<sup>15</sup> In responding to increasing rates of eating disorders, incidences of anorexia nervosa “in the UK has been estimated to up to 11 new cases per 100,000 persons per year and that bulimia nervosa up to 18 new cases.”<sup>16</sup> Moreover, the empirical evidence similarly supports “the hypothesis that individuals trade off health against self image.”<sup>17</sup> To be beautiful, one must adapt to how society wants to define “beauty.” The pressure on women (and men) to meet the standards is physically intense and psychologically oppressive.

Women do not exist solely for themselves. They are warped into products, deemed valuable only for social use and are ends in themselves.<sup>18</sup> Their unique struggle is combined with the larger economic struggle. There, they become the very example of commoditization Marxism claims to fight against. Marx argues that women:

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<sup>13</sup> Haines, “Beyond Patriarchy,” 646.

<sup>14</sup> Joan Costa-Font and Mirela Jofre-Bonet, “Body Image and Food Disorders: Evidence from a Sample of European Women,” *CESifo Working Paper No. 2412* (2008): 4.

<sup>15</sup> Eric Stice, Jennifer Maxfield, and Tony Wells, “Adverse Effects of Social Pressure to be Thin on Young Women: An Experimental Investigation of the Effects of ‘Fat Talk,’” *International Journal of Eating Disorders* 34.1 (2003): 1.

<sup>16</sup> *Ibid.*, 2.

<sup>17</sup> Costa-ont and Jofre-Bonet, “Body Image and Food Disorders,” 20.

<sup>18</sup> Marx and Kamenka, *The Portable Karl Marx*, 567.





[B]ecome communal and common property [...they] are to pass from marriage to universal prostitution, so the whole world of wealth [...] is to pass from the relation of exclusive marriage with the private owner to the realization of universal prostitution with the community.<sup>19</sup>

Commoditized as individuals, the implications are far worse and more complex than the devaluation suffered by male workers. To use women in explaining a shift from private property to communal utility is to establish a “sex-blind” system that disadvantageously exploits one group under the farce of capitalism.<sup>20</sup> Hence, they are comparable to other forms of property in the final synthesis: universally communal. Unfortunately, the position men hold within both the patriarch and in capitalism “prevent them from recognizing both human needs for [...] growth and the potential for meeting those needs in a nonhierarchical, nonpatriarchal society.”<sup>21</sup>

Though responsible for producing publically and reproducing privately, a woman’s value-added labor is withheld as if constrained by a Braudellian bell jar defined by her biological disposition. Marx’s worker is disillusioned by the capitalist’s push to accept religion as a “veil of ignorance,” so too is institutionalized marriage. Women “have been successfully interpellated by the ideology of love and marriage perpetuated by the media.”<sup>22</sup> Moreover, “women’s desire[s] [...] are] simply left unfigured and a woman’s attractiveness [is] defined solely in terms of her [cleanliness] and [domesticity].”<sup>23</sup> By being labeled as a ‘good housewife,’ her desire becomes crafted by the narrative into wanting a clean house and a nuclear family—symbols of her husband’s success and what has become the American dream. In this family, children are reared by women and learn their places in the gender hierarchy as well.<sup>24</sup> Through a reinforcing cycle children are predestined to know where they stand in the world outside of the home specifically because of what is constructed inside of it. A 2009 Pew research poll reveals that while the

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<sup>19</sup> *Ibid.*, 147.

<sup>20</sup> Hartmann, “The Unhappy Marriage of Marxism and Feminism,” 499.

<sup>21</sup> *Ibid.*, 513.

<sup>22</sup> *Ibid.*, 648.

<sup>23</sup> *Ibid.*, 653.

<sup>24</sup> Hartmann, “The Unhappy Marriage of Marxism and Feminism,” 503.

percentage of women in the U.S. labor force has grown to almost half of the total U.S. labor force, “[l]arge majorities of Americans believe that the ideal situation for both mother and child is that a mother with young children does not hold a full-time job.”<sup>25</sup> Not surprisingly, “42% say what’s best is if the mother doesn’t work at all.” While significant progress has been made since Levins’ 1940s assessment, there is still much to be accomplished.

It is crucial to note that, as mentioned earlier, men are also subject to the narrative and should not be viewed as an “enemy.” It is the tradition set in motion that has made them superior that is the true culprit. Because men create their own narrative, they are conformed to a path dependency of dogmatized masculinity. Any deviation creates tension within the structure. By not following the “historical” path, they are not truly men. When this happens, they too are dehumanized in the same fashion as women and have thus become victims to their own narrative. This can be seen in the case of homosexuality today. Friedan claims that “men will only be truly liberated, to love women and to fully be themselves, when women are liberated to be full people.”<sup>26</sup> Until then, men will have to bear the consequences of their historical burden displaced on women. Men create norms which they too must follow to be socially accepted. Such pressures drive men to compensate for masculinity by exploiting those inferior, particularly females. However, it is unnatural to have relations built on patriarchal ideas alone—constraining the flourishing of the human collective. Where gender is constructed, class is constructed obliviously. This disjuncture leads to false happiness.<sup>27</sup>

### III. Deconstructing the Patriarchy

With such dissimilarities, one must ask if there is hope for a revolution encompassing both capitalism and patriarchy. To answer this, one must first address Marx’s materialism: is it a woman’s physiology that places her at a disadvantage or something more? Feminists are not calling for men to have the ability to birth children. In that regard, biology cannot be changed. Obstacles are “located primarily

<sup>25</sup> “The Harried Life of the Working Mother,” *Pew Research Center* (2009). <<http://www.pewsocialtrends.org/2009/10/01/the-harried-life-of-the-working-mother/>>.

<sup>26</sup> Betty Friedan, “Our Revolution is Unique,” in *Dogmas and Dreams*, ed. Nancy Love (Washington D.C.: CQ Press): 493.

<sup>27</sup> Herbert Marcuse, “Marxism and Feminism,” *Differences* 17.1 (2006): 503



in cultural and sexual practices that shape the formation of deeply footed gendered subjectivities or are located mainly in economic and political institutions of power and privilege.”<sup>28</sup> Culture does not imply biology, rendering biological materialism irrelevant. The notion that the penis is mightier than the uterus directly influences societal attitudes.

In considering a reconstruction of society, one needs to focus on compelling “reality principles” that project gender and sexual equality across the board. Marcuse defines reality principles as “the sum total of the norms and values that govern behavior in an established society, embodied in its institutions, relationships, etc.”<sup>29</sup> When reality principles are aimed at addressing issues collectively rather than individually, they promote universal humanism and social cohesiveness. The rub is that the goal is to transcend merely attaining the same rights as men. This situation parallels Marx’s “Jewish Question” critique. Here, Marx criticizes the Jew for seeking emancipation solely on the basis of being a Jew. As long as the state remains Christian and the Jew remains Jewish, there can be no equal emancipation.<sup>30</sup> This materialism is a product of the material reality.

To be free is to make full conscious choices uninfluenced by male narratives. When accomplished, society will follow suit and there will be human liberation. Men will be liberated as they will be able to consciously make their own choices, not influenced by stigmas against their sex and be able to interact with women on an egalitarian level. In order for this to happen they must share in decisions “of government, of politics, of the church—not just to cook the church supper; [...] not to look up the zip codes and address envelopes; [...] they must be able to] make some of the executive decisions.”<sup>31</sup> This is not true just for business decisions but personal ones as well. A woman must decide if she wants to be a mother, how she will raise her children, and how she will be seen in public: as a person, not as a woman on the arm of a man.

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<sup>28</sup> Wright, “Explanation and Emancipation,” 43.

<sup>29</sup> Marcuse, “Marxism and Feminism,” 148.

<sup>30</sup> Marx and Kamenka, *The Portable Karl Marx*, 97.

<sup>31</sup> Friedan, “Our Revolution is Unique,” 492.

To advance into a truly Feminist society, one must be aware that “primary aggressiveness would persist, as it would in any form of society, but it may well lose the specifically masculine quality of domination and exploitation.”<sup>32</sup> One caveat is that the revolution *contra* capitalism raises issues that were seen in the “Jewish Question.” The worker specifically demands economic emancipation, though it impacts the relationship with the self, other men, and his nature. Nowhere does it emancipate him from the narrative he created, and nowhere does it emancipate women from either narrative directly.

When the patriarch is deconstructed, there is universal egalitarianism on all fronts. Marcuse remarks:

[E]quality is not yet freedom. Only as an equal economic and political subject can the woman claim a leading role in the radical reconstruction of society. But beyond equality, liberation subverts the established hierarchy of needs—a subversion of values and norms that would make for the emergence of a society governed by a new Reality Principle.<sup>33</sup>

This is precisely the focus of feminism. Just as the existence of religion is a defect for Marx, the degeneration of women is a defect to the existence of democracy. Simply conforming might create equality, but it does not create freedom. If the Reality Principle can be reconstructed so that materialism is addressed only in terms of social construction rather than biology, this still ignores the political economy where one is oppressed by the capitalist system. Due to labor being the sole entity the worker has to provide on account of their nature and self, labor must be considered in a way that is inclusive. Lazzarato redefines Marxist labor as the “activity that is constitutive of the world. Labour is not a simple, determinate economic activity but rather praxis—that is the production of the world and the self, a generic activity [...] of human beings in general.”<sup>34</sup> With gender and societal roles

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<sup>32</sup> Marcuse, “Marxism and Feminism,” 154.

<sup>33</sup> *Ibid.*, 153.

<sup>34</sup> Antonella Corsani and Timothy S. Murphy, “Beyond the Myth of Woman: The Becoming-Transfeminist of (post) Marxism,” *Substance* 36.1 (2007): 120.



distinguished, the divisions between building a home, reproduction, and formal labor are so particular to men and women that labor becomes multidimensional, applying to all individuals.

Summarily, oppression is not a static phenomenon. Materially, true feminism does not call for a biological change, as that is not true change, and categorically upends the call for universal human rights. Wright claims that:

At the close of the twentieth century, second-wave feminism envisions a future that ranges from complete equality of rights between men and women to the elimination of all gender inequalities in power and welfare [...]. No feminists imagine that male domination in even vestigial form is essential for social life. Many Marxists, on the other hand, have come to doubt the feasibility of the most egalitarian forms of their historic emancipatory class project, partially as a result of the failures of authoritarian state socialist systems and partially as a result of theoretical developments within Marxism itself.<sup>35</sup>

He is false. The deconstruction of the patriarch will have more than socio-economic changes. If the material reality is held by a people who do not associate with sex-identified stereotypes, there are infinite ways to improve society. If history has bred male dominance and capitalism, with social change geared at viewing people not as “man” or “woman” but truly as people, there could be an entire reconstruction of the material reality that does not value one group over another. Feminism does not call for a matriarchal society where the tables are turned and the men become the oppressed. It calls for the destruction of *all* gender and sex affiliated bonds to move onto a level where capitalism can be overcome by all human beings. Hartmann adds that, “men have long struggled *against* capital, women know what to struggle *for*.”<sup>36</sup> Perhaps the only true commonality to be found within the two ideologies is that there are more than chains to be lost: there are worlds to be rewritten. ❖

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<sup>35</sup> Wright, “Explanation and Emancipation,” 45.

<sup>34</sup> Hartmann, “The Unhappy Marriage of Marxism and Feminism,” 513.

# Understanding Thomas Reid

## Garrett Allen

**Abstract:** Thomas Reid offers a powerful challenge to Hume and his skeptical system. In “Thomas Reid on Epistemic Principles,” William Alston gives an explanation of that challenge and concludes in favor of a Reidian-inspired thesis. I argue, however, that Alston’s thesis is a diluted version of Reid’s radical position, one that Reid’s principles cannot accommodate. Thus, I conclude that, because Alston’s position is not available, we are left with Reid’s radical thesis, with which we are rightly uncomfortable.

Thomas Reid gives a deep and important challenge to Hume and his skeptical system. In “Thomas Reid on Epistemic Principles,” William Alston offers an explanation of that challenge and concludes in favor of a Reidian-inspired thesis. That thesis is, namely, that there is no reasonable approach to knowledge other than to simply accept the outputs of our basic faculties, except where there is sufficient reason to reject a particular belief.<sup>1</sup> I follow Alston’s presentation of Reid’s challenge to Hume, but depart on the resulting thesis: I argue that Reid is more radical, or less compromising, than Alston records, and that this resulting position is not satisfactory.

Hume argued to many skeptical theses, and Reid very often concluded in opposition to him. For instance, Hume argued that we have no adequate idea of power at all. Reid, on the other hand, concludes that “we have some degree of

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<sup>1</sup> William P. Alston, “Thomas Reid on Epistemic Principles,” *History of Philosophy Quarterly* 2.4 (1985): 448.



power over our actions, and the determinations of our will.”<sup>2</sup> Important, though, is how he gets there, for he seems, in large part, to consent to the progression of Hume’s thought. Indeed, Reid concedes, “It is not easy to say in what way we first get the notion or idea of power,” as well as that if we can’t describe how we get the idea, it’s not a very distinct idea at all.<sup>3</sup> This of course is where Hume’s doubt begins, and Reid follows the argument from here. He agrees we do not get the idea of power from our external senses: “We see events, one succeeding another; but we see not the power by which they are produced.”<sup>4</sup> Nor do we get it from internal reflection: “We are conscious of the operations of our minds; but power is not an operation of mind.”<sup>5</sup>

Because all our ideas come from either external senses or internal reflection, and neither the external senses nor internal reflection provide the idea of power, Hume concludes that we must not have any idea of power. But, though Reid follows Hume’s argument right up to the very end, he draws a drastically different conclusion. “It is in vain to reason from a hypothesis against a fact,”<sup>6</sup> the truth of which is readily apparent to every man, Reid writes. It is the second part of the preceding line that is very important. For Reid, the universal consent of mankind to a belief, as well as the irresistibility of a belief, or the necessity of a belief for normal life, each strongly indicate that the belief should be taken as an incontrovertible first principle. Given that the belief in power has all of these characteristics, Reid can thus, opposite to Hume, hold on to our idea of power, and let go of the doctrine that all our ideas come through either the senses or reflection.

A similar pattern of dialectic is repeated in discussions of induction, the thinking self above and beyond the thoughts and the body below the object’s perceivable qualities, and elsewhere.<sup>7</sup> And so the debate between Hume and Reid is transformed. Reid does not submit to Humean assumptions and quibble about the

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<sup>2</sup> Thomas Reid, *Essays on the Intellectual Powers of Man*, ed. James Walker (Cambridge: Cambridge UP, 1850): 365.

<sup>3</sup> Reid, *Essays*, 365.

<sup>4</sup> *Ibid.*, 365.

<sup>5</sup> *Ibid.*, 365.

<sup>6</sup> *Ibid.*, 365.

<sup>7</sup> The pattern can be found in relation to induction on *Essays*, 374 and to self and body on 382.

conclusions that are to be drawn. Rather, his challenge is more basic, more fundamental; he offers a comprehensive alternative to Hume. Hume begins with reason as his first principle and argues to skeptical conclusions. Reid carves out his own first principles, based on his criteria of universality, irresistibility, and necessity, and derives anti-skeptical conclusions. Thus, the center of the debate naturally shifts to first principles. And this, indeed, is where Reid makes his most important and insightful contributions.

For Reid, universality, irresistibility, and necessity are not themselves first principles, but are instead criterion for or, as Alston calls them, “marks” of first principles.<sup>8</sup> The first principles themselves concern the reliability of the cognitive faculties generally. For instance, Reid takes as first principles that “those things did really happen which I distinctly remember,” and “those things do really exist which we distinctly perceive by our senses, and are what we perceive them to be.”<sup>9</sup> These principles are marked by their universality: “I shall also take for granted such facts as are attested to the conviction of all sober and reasonable men, either by our senses, by memory, or by human testimony.”<sup>10</sup> The same is held for the marks of irresistibility and necessity. While Reid’s first principles concern the reliability of the cognitive faculties generally, I will follow Alston in concentrating on perceptual beliefs and somewhat distilling Reid’s principles, in order to have something concrete to fix attention on. This is,

- (i). Perceptual beliefs about the immediate physical environment are generally true.<sup>11</sup>

Why should we accept universality, irresistibility, and necessity as the marks of our first principles? Or more concretely, why should the universality, irresistibility, and necessity of perceptual beliefs count in favor of their truth? What is the connection? Does it follow from the universality, irresistibility, or necessity of a perceptual belief that that belief is true? It’s not clear that it does. Moreover, as Alston points out, Reid faces a bigger problem, that of epistemic circularity. How can I

<sup>8</sup> William P. Alston, “Thomas Reid on Epistemic Principles,” *History of Philosophy Quarterly* 2.4 (1985): 442.

<sup>9</sup> Reid, *Essays*, 617 & 625.

<sup>10</sup> *Ibid.*, 40.

<sup>11</sup> Alston, “Thomas Reid on Epistemic Principles,” 437.





know that (i). is accepted universally, that it is irresistible, or that it is necessary for the conduct of life? I know these on the basis of perceptual experience. Therefore, the truth of (i). is an essential epistemic presupposition of the marks; their ability to recommend a belief for first principle status is poisoned by circularity.<sup>12</sup> Thus we conclude that if he takes the marks to argue for the truth of his first principles, Reid has been defeated by circularity.

With admirable clarity Alston shows this is not the case. The marks, he argues, are only secondary, indirect indicators of Reid's first principles; their main support is derived elsewhere.<sup>13</sup> Alston is led to this interpretation by considering what Reid says about first principles directly. Reid, he argues, does not fall victim to epistemic circularity of first principles. On the contrary, he describes and investigates the consequences of epistemic circularity in first principles with remarkable insight. Consider Reid's comments on Descartes' treatment of first principles:

It is strange that so acute a reasoner did not perceive, that in this reasoning there is evidently a begging of the question.

For if our faculties be fallacious, why may they not deceive us in this reasoning as well as in others? And if they are to be trusted in this instance without a voucher, why not in others?<sup>14</sup>

For further explication of the same idea, here is Reid responding to Hume, in what becomes his most important objection to skepticism:

The author of the "Treatise of Human Nature" appears to me to be but a half-skeptic. He hath not followed his principles so far as they lead him; but, after having, with unparalleled intrepidity and success, combated vulgar prejudices, when he had but one blow to strike, his courage fails him, he fairly lays down his arms and yields himself a captive to the most common of all vulgar prejudices—I mean the belief of the existence of his own impressions and ideas.

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<sup>12</sup> *Ibid.*, 443.

<sup>13</sup> *Ibid.*, 444.

<sup>14</sup> Reid, *Essays*, 631.

I beg, therefore, to have the honour of making an addition to the skeptical system, without which I conceive it cannot hang together. I affirm, that the belief of the existence of impressions and ideas, is as little supported by reason, as that of the existence of minds and bodies. No man ever did or could offer any reason for this belief. Descartes took it for granted, that he thought, and had sensations and ideas; so have all his followers done. Even the hero of skepticism hath yielded this point, I crave leave to say, weakly, and imprudently... what is there in impressions and ideas so formidable, that this all-conquering philosophy, after triumphing over every other existence, should pay homage to them? Besides, the concession is dangerous: for belief is of such a nature, that, if you leave any root, it will spread; and you may more easily put it up altogether, than say, Hitherto shalt thou go and no further: the existence of impressions and ideas I give up to thee; but see thou pretend to nothing more. A thorough and consistent skeptic will never, therefore, yield this point.

To such a skeptic I have nothing to say; but of the semiskeptic, I should beg to know, why they believe the existence of their impressions and ideas. The true reason I take to be, because they cannot help it; and the same reason will lead them to believe many other things.<sup>15</sup>

The central idea, which Reid proposes to Descartes and expands upon with Hume, is that the act of reasoning involves a begging of the question, that reason takes itself for granted. Thus, now that we see that each basic faculty meets this problem, we see that each faculty holds the same claim to being trusted. And now, then, the skeptic who charges that there are insufficient reasons to assent to perceptual beliefs can be met. As Reid says, reason and perception “both came out of the same shop;” that is, both were given to us by nature, and if one is found faulty, what

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<sup>15</sup> Thomas Reid, *An Inquiry Into the Human Mind*, ed. Timothy Duggan (Chicago: University of Chicago Press, 1970): 81-82.



reason could we have to retain confidence in the other?<sup>16</sup> Moreover, as Reid says to Descartes, “Every kind of reasoning for the veracity of our faculties, amounts to no more than taking their own testimony for their veracity.”<sup>17</sup>

In light of this, Alston argues, the skeptic about sense perception has two options. The first is, as Reid’s amendment to the skeptical system requires, “withholding credence from all cognitive faculties.”<sup>18</sup> The true skeptic, who exempts no cognitive faculty, must rescind all beliefs. Reid stresses, “To such a skeptic I have nothing to say.”<sup>19</sup> There is nothing to say to such a skeptic for two reasons. The first is that, with the addition of Reid’s amendment, the skeptical position is for the first time fully consistent, and so in a sense invulnerable. The second reason is that, in giving up his cognitive faculties, he has given up any grounds he might have had for making a contribution to the discussion. The second option, then, is to select among the basic cognitive functions, trusting some and not others. Reid’s point about circularity, however, reveals this to be an essentially groundless activity. Why should some be trusted without a voucher and not others? The skeptic has no defensible option.

Reid’s insight concerning the circularity of justification of our basic cognitive faculties leaves us only one option. We can only accept what it is that our cognitive faculties have to offer. It is a consequence of the fact that they are indeed our basic cognitive faculties that we are not in a position to doubt them. We will not be in a position to doubt them until “God gives us new faculties to sit in judgment upon the old.”<sup>20</sup> Thus, Alston concludes, “There is no reasonable alternative to our simply following the promptings of our nature and unreservedly giving credence to the output of these faculties, except where we have sufficient reasons from other outputs to reject a particular item.”<sup>21</sup> This sentence tips us off to a challenge to Alston, and a new understanding of the struggle between Reid’s position and that of the skeptic.

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<sup>16</sup> *Ibid.*, 207.

<sup>17</sup> Reid, *Essays*, 631.

<sup>18</sup> Alston, “Thomas Reid on Epistemic Principles,” 446.

<sup>19</sup> Reid, *Inquiry*, 82.

<sup>20</sup> Reid, *Essays*, 631.

<sup>21</sup> Alston, “Thomas Reid on Epistemic Principles,” 448.

The first part of Alston's conclusion seems justified, and in line with Reid's position. It is the second part, the clause "except where we have sufficient reasons from other outputs to reject a particular item," that I find especially intriguing. For, it seems it was crafted with the intention of mitigating Reid's stance. It seems to be a retreat from the spirit of the position. Two related questions arise. Why would one have an inclination to mitigate Reid's position? Can it be mitigated? That is, can this move be defended?

Consider the difference between the positions. "There is no alternative to simply following the promptings of our nature," Alston concludes, "except where we have sufficient reason from other outputs to reject a particular item."<sup>22</sup> Reid, on the other hand, states plainly that, "Those things did really happen which I distinctly remember," and that, "Those things do really exist which we distinctly perceive by our senses, and are what we perceive them to be."<sup>23</sup> Reid's statements are simply more radical. They advise an uncritical acceptance of what our cognitive faculties offer us, and, importantly, they include no clause covering exceptions. We are rightfully uncomfortable with this, for we admit the possibility of remembering something that didn't happen, or perceiving something to be a way that it isn't. Reid's position, from this perspective, appears to be too bold, and we would like to weaken it, to dilute it. We would like to add a clause covering exceptions, or the problem examples we had in mind, and thereby increase the viability of the position.

Is such a dilution, the addition of such a clause, possible? Is it defensible? No, I argue it's not. The addition of such a clause is an admission that the outputs of our faculties are sometimes at odds. More importantly, such a clause implies that when the outputs of our faculties are at odds, there is a faculty (or faculties) that is to be privileged over others. It implies that, in times of conflict, there is a faculty (or faculties) that can be or should be favored. But this admission is detrimental to the Reidian position. Consider the progression: The clause is introduced to answer to cases that, it appears, demand to be answered, like the possibility of remembering something that didn't happen. But, it cannot account for only these cases. For, in accounting for these cases, it raises a particular cognitive faculty, namely reason,

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<sup>22</sup> Alston, 448.

<sup>23</sup> Reid, *Essays*, 617, 625.



after which it becomes possible to support strong doubt. The same, of course, is true with perception: Once I admit that I might sometimes misperceive an object, there is nothing to stop me from slipping to the suspicion that I am always misperceiving.

This problem is the reciprocal of the problem Reid described in relation to the skeptic: “Besides, the concession (of the existence of impressions and ideas) is dangerous: for belief is of such a nature, that, if you leave any root, it will spread; and you may more easily put it up altogether, than say, Hitherto shalt thou go and no further.”<sup>24</sup> Returning to the clause suggested above, we see that we now face the analogue. Although doubt, or the preference of a particular cognitive faculty, is planted in a very small seed, it will spread; one cannot say, “Go here, but go no further.” Perhaps Reid recognized the problem not just for the skeptic, but the potential analogue problem too. This would explain, at least, why he makes little attempt to moderate his first principles concerning the reliability of memory, sense perception, and consciousness.

We should now have a fuller understanding of the position in which Reid leaves us. His addition to the skeptical model has made the skeptical system complete. The skeptic has conceded that the use of no cognitive faculty is free of epistemic circularity, and so has rescinded all beliefs. The Reidian position seems better, for it involves beliefs, and therefore allows for the possibility of knowledge of the world. Yet, it is far from satisfactory: It involves uncritically accepting the outputs of all our cognitive faculties, without the possibility of adding qualifiers. Reid, having demolished the middle ground, leaves us here, stranded between two radical poles, neither of which is satisfactory. ❖

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<sup>24</sup> Reid, *Inquiry*, 81-82.

# The Principle of Implicit Ignorance

Phillip Curtsmith

**Abstract:** The following is a foundationalist exercise based upon a single observation or postulate distinguishing one's knowledge of information versus one's knowledge of one's former unknowing of that information. This postulate is titled the "principle of implicit ignorance." Utilizing this postulate, several theorems are constructed including the equivalence to Hume's thesis regarding the absence of knowledge of a necessary connection. The postulate is then negated, demonstrating equivalence to Kant's thesis regarding the presence of synthetic *a priori* statements. The final result is a single general epistemic postulate that brokers between the two respective positions. Because both systems are the result of this general principle, rejecting the results of one system necessarily forces one into the contrary position.

## I. An Observation, A Postulate

Coming to know things not known previously is a common experience. Due to the depth of this inquiry, such an examination may never be complete, but simply compelling enough to incite further inquiry. Knowledge and learning will be taken as primitive terms.

It is only after having come to know a piece of information that one can have knowledge of one's former unknowing of that piece of information. For example, it is only after one learns of pine trees that one learns of one's former unknowing of pine trees. This observation will be referred to as the principle of



implicit ignorance, or as the ignorance postulate. The proposed postulate is of this form: for every acquired piece of information, one has knowledge of one's former unknowing of a thing if and only if one has knowledge of that thing.<sup>1</sup>

A first conclusion can be phrased in this manner: one cannot disconfirm the possibility of additional information to know. Stated differently, this is to say that one cannot know that there are not further knowable things. One could never disconfirm the presence of at least one more thing to know, because one only comes to know what it is that one does not know upon coming to know it, and it is this unknowing that one must dismiss before coming to know that thing to which that unknowing corresponds. This is contrary to the ignorance postulate as one would need to presuppose the absence of unknowing, which can only be revealed upon coming to know a new thing. To say that no further knowable information exists to be learned would be very strange semantically also, as one would be referring to the supposed non-existence of information that is not yet an object with which to be referred to. This is titled corollary one.

An illustration may clarify this first corollary. Suppose that Richard is a top researcher at an institution. Richard is assigned the task of compiling every notable scientific discovery of the past year in the next volume of the institution's magazine. Richard cannot leave until completing this task. In the morning, the manager arrives early to find a weary-eyed researcher remaining at a desk. When asked why Richard had worked through the night, the response was: "I didn't know when my job was done as I have no way to determine that the last discovery that I discovered was the last discovery *to be discovered*."

There are several red herrings to bear in mind when considering corollary one. Consider the notion that one can know when there is or is not a piece missing from one's chess set. If one counts short, one knows that another piece remains to be counted. If one does not count short, one knows that no further pieces remain to be counted. Thus, it would seem that one could confirm or disconfirm the

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<sup>1</sup> Formalized over all pieces of information (or propositions)  $p$  at a time  $t$ , denoting a time preceding  $t$  as  $-t$ : " $\forall p, K_{p_t} \leftrightarrow K(\neg K_{p_{-t}})$ ."

possibility of further pieces of information to know, namely, a game piece. However, one is actually presupposing the presence or absence of a game piece based upon an expected number of rooks, pawns, and so on.

The second possible complaint is very similar. One can know that there is a prime number greater than the largest currently known prime number. The statement makes use of one term known as Euclid's "infinitude of primes theorem," and the second term is known as "prime number."<sup>2</sup> One can rightfully anticipate an additional prime number *only in virtue of the designated terms*. This is a different sort of presupposition, wherein the previous example the terms being utilized regarded the number of game pieces.

The third example involves tacit assumptions. Take a certain city. In this city, one is searching for the shop with the lowest priced goods. Approaching the problem geographically, one crosses off each firm in time. Now, it would seem that one could disconfirm the possibility of further information, shops to discover, which would be a contradiction. However, several tacit assumptions are present. One is assuming that all shops must occupy space, or that two shops cannot occupy the same space, or shops cannot pass in and out of existence. While most individuals would cede these points, these assumptions actually have no formal foundation.

A second conclusion can be phrased in this manner: One cannot confirm the possibility of additional information to know. Stated differently, this is to say that one cannot know that there is at least one further knowable thing.<sup>3</sup> One cannot confirm the presence of at least one more thing to know, as one can only know of the presence of that piece of information upon actually learning that information. Even after having done so, the possible presence of at least one more thing to

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<sup>2</sup> Eric Weisstein, "Euclid's Theorems – from Wolfram MathWorld." Wolfram MathWorld, <<http://mathworld.wolfram.com/EuclidsTheorems.html>> (02 November 2011).

<sup>3</sup> One can have knowledge of the name of a thing, such as a "chainsaw." One can learn these letters, as existing in the English alphabet, and also this particular ordering of letters that compose the term. One could also learn what each component of a chainsaw does, and perhaps learn that the components can fit together in such a way. This does not necessarily mean that one knows of a chainsaw as a common tool in a typical context. Thus, there are many tiers of knowledge of a thing. However, this thesis does not suffer if each individual entity of knowledge is posited as a separate acquisition.





know can only be discovered upon actually learning that information, *ad infinitum*. Thus, one can only discover that there *was* something more to know, but not that there are more pieces of information to be known. This is titled corollary two.

This second corollary can be clarified with an illustration. Once more suppose that Richard is a top researcher at a firm. On this occasion, Richard's superior requests a similar research project. As opposed to the previous occasion, Richard's superior indicates a freedom to leave for the night once Richard is reasonably sure that no further objects of research remain. In no more than one hour, Richard resolves to leave the office for the night. The next day when Richard is asked of the early departure, the reply was: "I didn't know of any *further research* remaining to be researched, so I left."

Due to one's inability to guarantee with certainty that there does or does not exist new information to learn, and because it is only after having learned that information that one learns of not knowing it previously, one can therefore never know how much one does not know, because even after learning a new thing one can never know that some other piece of knowledge does not exist. This last conclusion can again be illuminated with an example. John has two joys in life: coffee and friends. This is well and good, since John loves friends and coffee, while John's friends love both John and coffee. One day, however, John discovers that these friends are not coffee-lovers, but tea-lovers. This upsets John terribly, as this deception becomes apparent. Additionally, John learns of the former unknowing of this deception. Since John cannot confirm or disconfirm the possibility of additional information to know, perhaps information that will reveal an additional deception, and because it is only after having learned of another deception that John learns of the former unknowing of that deception, John cannot confirm or disconfirm the possibility of having to confront additional deceptions in the future. Thus, John can never have complete knowledge of this possible unknowing.

## **II. Axiomatic Systems and Consistency**

The most perplexing complication incident to the ignorance postulate concerns an apparent logical issue. To present this issue, some background information may be of use. The process of setting out axioms or postulates to deduce further theorems is known as foundationalism, a form of writing pioneered by

Descartes.<sup>4</sup> Historically, the process was borrowed directly from mathematics.<sup>5</sup> Simply put, axioms and/or postulates are established as foundations for the purpose of constructing further truths that cannot be rejected unless one resolves to reject the axioms and/or postulates used in forming those truths.

The complication here is simple: because one can never disconfirm the possibility of additional information to know, one can never disconfirm the possibility of information that will contradict what one thought that one knew. More specifically, one can never disconfirm the possibility of information that will contradict the postulate used in forming this conclusion. Therefore, one is left with an argument demonstrating the ongoing possibility that any given axiom or postulate may be contradicted, including the postulate used to demonstrate this truth. This is a sound argument demonstrating the impossibility of guaranteeing the soundness of any argument; including the soundness of this argument.

With these preliminary conclusions aside, a note should be made regarding a contemporary philosophical debate. Readers must keep in mind that there has only been *one single* initial postulate. In lieu of this, a note concerning one such debate is narrowed considerably in scope. This debate concerns the possibility that “for any proposition *p*, if one knows that *p*, then one knows that one knows it.” This has been titled the KK Principle.<sup>6</sup> It has been suggested that this disclaimer be inserted to dispel the notion that the KK Principle has been somehow disregarded or excluded. The thesis has not been disregarded because it is irreconcilable with the ignorance postulate, but because it is altogether beside it. The KK Principle, as stated, concerns knowledge of one’s knowledge. The ignorance postulate concerns knowledge of one’s unknowing. These are two very distinct notions that do not appear to be mutually exclusive.

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<sup>4</sup> Rene Descartes, *Meditations, Objections, and Replies* Trans. Roger Ariew (Indianapolis: Hackett Pub, 2006): 94.

<sup>5</sup> James H. Smith, *Elements of Geometry*, 4th Ed. (London: Rivingtons, 1923): 8.

<sup>6</sup> David Hemp, “The KK (Knowing that One Knows) Principle,” *Internet Encyclopedia of Philosophy* (15 October 2006), <<http://www.iep.utm.edu/kk-princ/>> (12 November 2011).



### III. The Legacy of David Hume

This section presents a line of reasoning culminating with the logical equivalence of the ignorance postulate and David Hume's position regarding the absence of knowledge of a necessary connection. It was in *An Enquiry Concerning Human Understanding* that this proposition was originally advanced.<sup>7</sup> Hume's thesis indicates that one has no knowledge of any relation that inextricably binds a specific effect to a specific cause. For example, one cannot know with certainty in every instance that pouring vinegar onto baking soda will result in a foamy chemical reaction, although this may indeed have occurred in the past.

A proof by contradiction will be here provided to demonstrate how Hume's thesis is a consequence of the ignorance postulate. Suppose to the contrary that one does have knowledge of a necessary connection. The existence of advanced knowledge of the outcome of an event due to knowledge of a necessary connection would provide one with the knowledge that there is not more to know in that instance. Namely, certain phenomena or effects *will not* occur in that instance. Therefore, one *can* disconfirm the possibility of further information to know, which contradicts corollary one. Hume's conclusion is thus a consequence of the ignorance postulate.<sup>8</sup>

One can also demonstrate the converse of this theorem, that the ignorance postulate is a consequence of Hume's thesis. Before proceeding, a supplemental proof or lemma will be of use. If for every instance one has no knowledge of a necessary connection, one cannot know the outcome of an event before that outcome is observed. Now, suppose that the negation of the ignorance postulate is true, indicating the existence of a piece of information such that one has knowledge of one's unknowing of a thing while actually lacking knowledge of that thing. This contradicts

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<sup>7</sup> Ibid.

<sup>8</sup> An indirect proof by contraposition can also be derived: If there exists at least one relation such that one has knowledge of a necessary connection, then one can make a prediction such that one knows the outcome of that prediction to be certain. Thus, there exists a piece of information such that one has knowledge of one's unknowing (that supposed effect per that cause) while lacking empirical knowledge of that thing (actually having seen the effect). This satisfies one half of the disjunction presented in section IV as the formal negation of the ignorance postulate.

the constructed lemma, however, as this would indicate knowledge of an outcome before that outcome is observed. Thus, the ignorance postulate must be a consequence of Hume's thesis.

Since Hume's thesis is a consequence of the ignorance postulate and because the ignorance postulate is a consequence of Hume's thesis, the two positions are thus equivalent. The purpose of these demonstrations allude to the broad applicability of the ignorance postulate in any philosophical system that purports to make use of Hume's classic thesis. One who accepts Hume's position must necessarily also accept the ignorance postulate. Perhaps more importantly, one who accepts Hume's thesis must also necessarily accept both corollaries.

Demonstrating the above is also important for matters of completeness. When the concept is presented in *An Enquiry*, it is offered to readers as a series of observations instead of being demonstrated based upon a well-defined axiomatic foundation.<sup>9</sup> Because of this, one should consider the possibility that one agrees with Hume's position because the epistemic limitation described by the ignorance postulate is true—providing an answer in terms of a general epistemic postulate. This perspective is paramount when seeking to elucidate the founding assumptions incident to one's position. The next section provides a historical juxtaposition of the transition from David Hume to Immanuel Kant that will highlight the conceptual difference that lies at the heart of the Hume-Kant debate; a conceptual difference aptly captured within the single ignorance postulate.

#### IV. Kant and the Synthetic *A Priori*

In addition to making a general conclusion regarding the Hume-Kant debate, this section purports to demonstrate the equivalence of Kant's position regarding the presence of synthetic *a priori* statements and the negation of the ignorance postulate. If this can be sufficiently demonstrated, both sides of this debate can be represented succinctly all within the conceptual framework of the ignorance postulate.

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<sup>9</sup> David Hume, *An Enquiry Concerning Human Understanding* (Oxford: Oxford University Press, 1999): 40.



The historical transition from David Hume to Immanuel Kant represents a philosophical debate that exists to this day: the question as to whether or not one can know anything based purely on reason alone, outside of the need for empirical discovery. The position of David Hume and the ignorance postulate is unequivocal; one is forever on the cusp of discovery. On this view, the only way to discover is through investigation and nothing can be logically inferred regarding future events or the true way of things.

It may first be helpful to provide a brief definition of synthetic *a priori* statements. A statement is either synthetic or analytic.<sup>10</sup> Analytic statements have predicate concepts contained within the subject. To say that all bachelors are unmarried is an analytic statement, as the predicate “unmarried” is already contained within the subject “bachelors.” Statements of this form are necessarily true or necessarily false in virtue of the concepts in use. A synthetic statement does not contain a predicate within the subject and thus the truth of that statement cannot be concluded in virtue of the concept alone. Kant further distinguishes between *a priori* and *a posteriori* statements. *A priori* statements, contrary to *a posteriori* statements, can be determined as true or false through reason alone, independent of experience.<sup>11</sup> While this leaves one with four different combinations of statements, *a priori* synthetic statements will be the main point of focus here as they were for Kant. In summation, *a priori* synthetic statements are statements whose truth or falsity are non-empirical and necessary, statements that would otherwise be considered contingent.

An example of an *a priori* synthetic statement will be instructive. A common yet much debated example utilized by Kant is drawn from mathematics. According to Kant,  $7+5=12$  is a synthetic *a priori* statement.<sup>12</sup> In this case, nothing

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<sup>10</sup> Readers should note that this distinction is widely objected to, perhaps most notably by Quine is V. W. Quine, “Two Dogmas of Empiricism,” *Philosophical Review* (60): 20-43.

<sup>11</sup> Bruce Russell, “A Priori Justification and Knowledge,” *The Stanford Encyclopedia of Philosophy* (09 December 2007) <<http://plato.stanford.edu/archives/win2007/entries/apriori/>> (09 February 2012).

<sup>12</sup> Immanuel Kant, *Critique of Pure Reason*, trans. Max Müller (Garden City: Doubleday, 1966): 145.

about seven or five is contained within twelve. For this reason,  $7+5=12$  is synthetic. Additionally,  $7+5=12$  is not dependent upon experience once the knowledge of the concepts is acquired. Thus, the statement is also *a priori*.

The negation of the ignorance postulate is of this form: there exists an acquired piece of information such that one has knowledge of one's "former" unknowing of a thing and one lacks knowledge of that thing *or* one has knowledge of that thing and one lacks knowledge of one's "former" unknowing of that thing.<sup>13</sup> The word "former" has been carried over from the formulation of the original postulate, but it is no longer an adequate adjective to describe the knowledge of one's knowledge. Instead, one might refer to the following adapted formulation without the temporal reference: there exists an acquired piece of information such that one has knowledge of that thing, all while not yet having encountered that thing empirically.<sup>14</sup> For example, this is to say that one has knowledge that one lacks knowledge of  $x$  without ever having encountered  $x$  in any form.

The following two demonstrations will provide a formal proof of equivalence between the negation of the ignorance postulate and the presence of at least one synthetic *a priori* statement. Both demonstrations are by way of contradiction. If there exists a synthetic *a priori* statement, then there exists a statement  $p$  such that one can have knowledge of an outcome without having encountered that outcome empirically.<sup>15</sup> Suppose that the ignorance postulate is true. If the ignorance postulate is true, then for every statement  $p$ , one cannot conclude an outcome without having encountered that outcome empirically. This is a contradiction. Therefore, the negation of the ignorance postulate must be a consequence of the presence of

<sup>13</sup> Formalized rather clumsily here:  $\exists p(K_{p,t} \wedge \neg(K(\neg K_{p,t}))) \vee ((K(\neg K_{p,t})) \wedge (\neg K_{p,t}))$ . Note that the latter half of this disjunction is of most interest:  $K(\neg K_{p,t}) \wedge (\neg K_{p,t})$ .

<sup>14</sup> The word "former" was used in the initial postulate as a simple adjective to describe the fact that one lacked knowledge of one's lack of knowledge of that piece of information *before* having gained knowledge of that information. Since the main concept of interest is knowledge of one's knowledge in the context of the order of discovery, the statement does not lose any logical specificity if adjectives are changed slightly. Note that the temporal reference was not removed from the formal negation to make matters of comparison easier.

<sup>15</sup> Readers will notice the striking similarity between the negation of the ignorance postulate and the presence of at least one synthetic *a priori* statement. The statements appear to be more than equivalent; the statements appear to be identical. Nevertheless, demonstrations are provided to allay any possible concern that the statements are not actually equivalent.



at least one synthetic *a priori* statement. The next demonstration provides the truth of the converse. If the negation of the ignorance postulate is true, there exists a statement  $p$  such that one has knowledge of an outcome without having encountered that outcome empirically. Suppose that there does not exist at least one synthetic *a priori* statement. Then, for every statement  $p$ , one cannot have knowledge of any outcome without having encountered that outcome empirically. This is a contradiction. Therefore, the presence of at least one synthetic *a priori* statement is a consequence of the negation of the ignorance postulate. The two statements, then, are equivalent. It can be said thus that the negation of the ignorance postulate is equivalent to Kant's thesis just as the ignorance postulate is equivalent to Hume's thesis. The postulate represents, in a sense, two sides of the same metaphysical coin. Because the two positions pivot on the ignorance postulate, to reject one is necessarily to accept the other.

## V. Summary

This article has been constructed to include many supplemental conclusions while simultaneously constructing a much larger and general conclusion regarding the consistency of two competing logical schemes. The purpose of this investigation was not to bolster evidence in favor of David Hume or Immanuel Kant, but instead to demonstrate that both systems can be discussed through the use of a more general epistemic principle. This was done by providing one such principle, demonstrating the equivalence of that principle to Hume's thesis, only then to negate that principle and demonstrate how the negation is equivalent to Kant's thesis.

While this larger endeavor is significant in and of itself, the supplemental conclusions are provided to demonstrate the way in which one's willingness to accept or reject certain consequences forces one into historically significant metaphysical positions. For example, if one wishes to reject one or both corollaries, one will contradict the ignorance postulate. By so doing, one is forced into the Kantian position. The same result ensues for true statements within the Kantian scheme; if true statements within the Kantian scheme seem unconscionable, then one is forced into Hume's position.

While this exercise does not solve the questions posed by these philosophers, it suggests that the entire debate is actually the result of a more general principle or set of principles. While much debate surrounds the possibility of synthetic *a priori* statements, the outcome of this debate rests only on the open and candid investigation of these ideas. One must remember, however, that the failure to discover such a statement does not demonstrate that such statements do not exist: it simply forces one into the conclusion that one cannot demonstrate the possibility that such statements do not exist. This is the great problem, the problem of ignorance. ❖





# The Truth of the Matter: A Defense of Critical Thinking as the Principle Aim of Education<sup>1</sup>

Vincent Charles Sawaya

**Abstract:** With the rise of state sponsored standardized testing and curriculum alignment, it is important to consider the impact such practices may have on educational aims. In this paper, I argue that critical thinking ought to be the principle aim in every educational pursuit, and that practices such as “teaching to the test” may be detrimental to its development. I maintain these claims with a discussion of the philosophical works of Harvey Siegel, Israel Scheffler, and John Dewey. Operating from their definitions of critical thinking, rationality, and education respectively, I offer support for my conclusion based on one’s ability to challenge the soundness of claims, and the revisional quality of true belief. The issue of critical thinking as general or subject specific is also addressed. Using Siegel’s notion of a *critical spirit*, I propose that a universal quality of critical thinking lies in its normative as opposed to technical aspects.

In the introduction to *Reason and Education*, a collection of philosophical works in honor of Israel Scheffler, Harvey Siegel states that all *significant* philosophers of education have made lasting connections between philosophy of education and philosophy in general.<sup>2</sup> Consequently, philosophers of education ought to

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<sup>1</sup>I would like to thank Professor Debra Nails and my colleagues, Ari Goldstein and Korey Hunri, for their valuable comments in the process of writing this paper, as well as acknowledge the help of Dominic Sawaya and Jeff Olenick, both of whom proofread this paper.

<sup>2</sup>Harvey Siegel, ed., *Reason and Education: Essays in Honor of Israel Scheffler* (Dordrecht: Kluwer Academic Publishers, 1997): 4.



make their philosophies applicable and relevant to the broader philosophical traditions such as epistemology, philosophy of language, and philosophy of science. Part of achieving this aim will be to distinguish between philosophy of education and educational theory. Therefore, I will provide a satisfactory distinction between educational theory and philosophy of education.

There are many individuals working in universities and other facilities of education who have deliberated thoroughly and appropriately about educational aims, curricular content and implementation, teaching and classroom schemata, and have accordingly conceptualized comprehensive theories of education to suit their various goals. Such theories often take an interdisciplinary approach, including elements of such subjects as physiology and sociology.<sup>3</sup> Philosophy of education differs from this in that it insists on asking fundamental questions and making precise distinctions in regard to education. For example, a philosopher of education may speculate about how a school, as an educational institution, is distinct from a place for training people, the philosophical issue being the precise distinction between *schooling* and *training*.

With the current educational climate in the United States (US), philosophy ought to seriously consider how educational practices impact educational aims. Of primary concern in this paper is the practice of primarily utilizing standardized tests as indicators of student and institutional success, and therefore the achievement of educational aims. If this educational trend continues, the education system risks losing sight of its fundamental purpose: to foster critical thinking skills. In what follows, I show how critical thinking is essential to social and scientific development, and that certain practices in the US educational system threaten its development. My main thesis: the development of critical thinking ought to be the principle aim in all educational pursuits, for without critical thinking one cannot effectively challenge the soundness of belief.

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<sup>3</sup> A physiological question regarding education may be at what age do people learn most effectively, and a sociological question may inquire about what the social impact of a certain public school system is. The answers to these inquiries are empirical in nature. The questions, therefore, are not philosophical in the strict sense.

Support for this argument comes from various sources including, but not limited to, the technical skills required for sound scientific pursuit, sound moral reasoning, and sound political and philosophical discourse. The key word is *sound*. Using this word in its technical and logical sense, I will show how the primary support for my conclusion is in the revisionist quality of true belief. Let us start with a comparison between the educational ideal of critical thinking and an extrapolation of a current educational practice, namely “teaching to the test.”

To be clear, “teaching to the test” is not necessarily an educational practice that should be avoided; however, as will be shown, if such a practice is not implemented carefully it can be detrimental to social and scientific progress. For example, in multiple-choice testing “teaching to the test” entails focusing on the specific content that will be on the test, and often utilizes the form of the test as a foundation for teaching. Since this kind of teaching primarily leads to an improved test-taking ability, increased test scores do not necessarily indicate an improvement in other areas of academic performance, such as writing composition and public speaking. Additionally, many multiple-choice tests do not assess a student’s ability to organize or communicate ideas, and teaching to these types of tests can narrow classroom curriculum by forcing teachers and students to concentrate on the rote memorization of facts. This practice oftentimes takes for granted the skills required to connect facts in a theoretical framework. Therefore, if one defines a successful student as more than just being a good test taker, then merely teaching to a multiple choice test does not adequately prepare students to be successful learners.

In a thought experiment, suppose that teaching to a multiple-choice exam was the sole educational practice. It is plausible that in such an education system the teaching of critical thinking skills would be absent, for all answers would be presubscribed as a part of a standardized body of information. If this were the case, then the role of a student would be diminished to a passive recipient of information. Such an education system would be set on a strict hierarchical structure in that the teachers would be the knowers, and the students would be the receivers of their knowledge. In this way, there would be minimal mutual interaction between teacher and student. Information would be seen as an absolute, for the engine that challenges the validity of claims, namely critical thinking, would be absent. Unchallengeable facts would be disseminated down to the unknowing students like water filling a glass. Each teacher would know what all the other teachers



knew; they would be the same in this regard. The goal of education would therefore be to make the students the same as the teachers, for when a student's brain was completely full, that student would be educated just the same as the teachers. Many critical pedagogy theorists, including Paulo Freire himself, refer to this as the "banking concept" of education.<sup>4</sup>

In this situation, the quintessence of science, namely the exploration of the natural world, would be far from attainable. Fundamentally, science is inquiry: asking good questions and, by means of the appropriate tools, investigating and adequately answering those questions. Education ought to challenge students to be critical and creative; not merely tell a student what they ought to know, but give them the tools and experience to suitably react to the new challenges of an ever-changing world. Critical thinking is the foundational aspect of these educational aims. The thought experiment implies a question regarding whether education ought to create a homogeneity of knowledge. If the goal of education were to merely re-produce a standard, then there would be no real progress. There would only be a re-presentation of definitive facts. *The way it is* would be static; and this is contradictory to contemporary ecological discourse characterizing the natural world as a constant process, as well as many instances of social progress, e.g. the abolishment of slavery.

In an elaboration of what Harvey Siegel calls the *reasons conception* of critical thinking he argues that: (1) to be a critical thinker is to be appropriately motivated by reasons, and (2) to be a rational person is to think and act on the basis of reasons. He concludes that a conceptual connection, via the notion of reason, exists between critical thinkers and rational people.<sup>5</sup> It is a truism that our education system ought to teach people to be rational. Without critical thinking, this is impossible. Critical thinking is best understood as an educational equivalent of rationality, for critical thinking, as Siegel puts it, is simply education meant to foster rationality.<sup>6</sup> More specifically, critical thinking as an educational ideal is aimed at

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<sup>4</sup> Paulo Freire, *Pedagogy of the Oppressed* (New York: Continuum, 2000): 83.

<sup>5</sup> Harvey Siegel, *Educating Reason: Rationality, Critical Thinking, and Education* (London: Routledge, 1988): 32.

<sup>6</sup> *Ibid.*, 33.

the development of rational people. Siegel continues with a characterization of a critical thinker as one who appreciates and accepts the importance and commanding force of reasons.<sup>7</sup>

By accepting Siegel's argument, critical thinking can be understood, fundamentally, as a method of questioning assumptions. Critical thinking is thinking about ideas, i.e., thinking about thinking and the objects of thought. Here the action of thinking is motivated to challenge the ideas one has about a given subject or situation. In this way, critical thinking is a reflective exercise, deliberation about what to do, think, or believe. The "banking conception" of education as exemplified in the thought experiment is in opposition to the critical thinking ideal, in that education ought not to be aimed at telling individuals *what* to think. Education ought to teach students *how* to think. Implicit in this educational duty is the notion that the capacity to reason is taught. Society educates its members to be rational agents. Rationality is not inherent, but acquired. Thus, the task of education is to empower individuals with the capacity to soundly reason.

Siegel is clearly informed by Israel Scheffler. Scheffler states that rationality is a central aspect of critical thinking and the teaching thereof.<sup>8</sup> To be clear, Scheffler does not refer to rationality as belonging to a distinct faculty of the mind. Rationality is not something that could be labeled as pure reason. By contrast, Scheffler's rationality uses specific *reasons* or *evidence* as its content, and refers to the capability to involve oneself in a critical and open assessment of rules and principles in all areas of life.<sup>9</sup> In other words, rationality is "the free and critical quest for reasons."<sup>10</sup> Thus, at its core, rationality is the guiding force behind the pursuit of truth, and constantly challenges the adequacy of our understanding of the world; this is the principle reason why education ought to concern itself with teaching students to be critical thinkers.

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<sup>7</sup> Ibid.

<sup>8</sup> Israel Scheffler, *Reason and Teaching* (London: Routledge, 1973): 62.

<sup>9</sup> Ibid.

<sup>10</sup> Ibid., 63.



Operating from his conception of rationality, Scheffler goes on to construct a definition of “teaching.” He characterizes teaching as an instructive activity that engages the mind.<sup>11</sup> Accordingly, the teacher must be ready to acknowledge the student’s right to ask questions, e.g., inquire for the elucidation of subject matter. It follows that teaching is the commitment to, and initiation of, free rational discourse. John Dewey, writing in 1916, argues a similar point when he states that the principle significance of schooling is the degree to which it fosters a desire for continued growth, and equips the student with the appropriate means for making that desire effective in pursuing facts.<sup>12</sup>

The *growth* Dewey writes of is similar to Scheffler’s notion of a student’s *critical quest for reasons* in that each concept refers to a constant skeptical reflection on propositions. Moreover, Dewey’s growth metaphor provides an interesting addition to Siegel’s *reasons conception* of critical thinking, in that it affords a continuous critical deliberation. In other words, the educational process, as Dewey argues, is a constant re-direction and transformation that focuses on using the correct reasons to justify true belief.<sup>13</sup> The point is that there is no specific time when an individual becomes fully educated. In fact, properly understanding education may deem inappropriate the use of the word *educated* at all, for the verb’s past tense construction may entail an ending or completion, and according to Dewey, education never ends: “It has no end beyond itself.”<sup>14</sup>

What follows from this discussion is that critical thinking ought to be understood not only as an ability to analyze arguments, but also as a never-ending pursuit of truth. The latter portion of this means, to use Siegel’s terminology, that critical thinking requires a certain *critical spirit*. An individual may be skilled in argument analysis but use it to deceive people, i.e., use one’s ability to turn people away from the truth. Using Siegel’s criteria, such an individual would not be considered a critical thinker, for, as mentioned above, a critical thinker ought to be *appropriately* motivated by reasons toward arriving at some fact or truth. Here, the

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<sup>11</sup> Ibid.

<sup>12</sup> John Dewey, *Democracy and Education: An Introduction to the Philosophy of Education* (New York: Dover Publications 2004): 25.

<sup>13</sup> Siegel, *Educating Reason*, 59.

<sup>14</sup> Ibid., 51.

word *appropriate* suggests a certain normative character in the student. One must have certain mental habits that encourage a motivation toward pursuing truth. Thus, qualities such as being a skeptical person, caring about the truth of the matter, and the like, are constituent elements of the definition of critical thinking. If this is so, then critical thinking is fundamentally connected with matters of personal character and not just matters of technical skill. Critical thinkers must be interested in the evaluative process not to further their own ends, but because they want to know the truth of the matter.

Every discipline from chemistry to civics, biology to studio art, physics to literature, relies on the justification of our beliefs, assumptions, ideas, knowledge sets, etc. To progress such disciplines one must question the justifications used to substantiate claims to truth. One is reminded of the 16<sup>th</sup> century astronomical debate between geocentrism and heliocentrism. Copernicus, as well as many of his followers, was a critical thinker in that he derived his beliefs regarding astronomy directly from observed scientific evidence and cared about finding the truth regardless of its social implications. He eventually revolutionized the study of astronomy. It follows that, without critical thinking as an educational ideal, society may be bound to an education system that does not teach individuals to advance knowledge. Such an education system would not privilege a student's ability to properly substantiate their beliefs, find answers themselves, or appropriately deliberate about their personal educational goals and outcomes.

Therefore, one of the main tenets of liberalism, namely that people deserve equal concern and respect, necessitates that education concerns itself with the development of critical thinkers. In this way, political democracy only functions to benefit the common good if people are critically engaging with the social, cultural, and existential aspects of political life. From this social perspective critical thinkers ought to be skeptical of the status quo, for it is often ideas that cut against the grain of dominant ideology that motivate progress in society. Take, for example, the American South before and during the civil rights movement. At this time the social ontology in America was extremely racist. Even so called "progressives" in the North regarded segregation simply as the way southerners wished to live. Now we understand segregation as completely absurd, for it is a blatant violation of civil liberties. However, if it were not for individuals like Martin Luther King, Jr. and Malcolm X, people that critically engaged and challenged the reality of their



social situation, society would not have progressed as such. It follows that teaching students to accept *the way it is* as stagnant, inert, and permanent, short circuits the potential to change society for the better.

In accordance with Scheffler's notion of education as the initiation of students into free rational discourse, a student learns the proper evaluation of reasons by being *initiated* into the traditions in which rationality plays a pivotal role. Siegel agrees with Scheffler by arguing that if one understands education as teaching students the rational traditions, e.g., mathematics, science, history, literature, politics, etc., and this consists, at least in part, of helping the student appreciate the criteria of rationality that has governed the development of the reasons in each tradition, then one should be compelled to regard critical thinking as an ideal in education.<sup>15</sup> Moreover, becoming a critical thinker necessarily involves understanding and acknowledging the role of reasons in the rational traditions. This entails acquiring the type of *critical spirit* that fosters attitudes and dispositions that encourage a willingness to revise our reasons in the process of validly grounding ideas and beliefs. It follows that education—insofar as it aims to produce the most promising participants in the rational traditions—ought to educate students to be critical thinkers.

In light of this discussion, let us return to Dewey's claim that education is an end in itself. To realize Dewey's insight, education must be aimed at producing critical thinkers. The ideal of critical thinking fosters education as an end, insofar as a critical thinker is moved by appropriate reasons. The reasons that are appropriate to substantiate valid claims are not static, and the principles in the rational traditions are always evolving. To account for this evolution education must be understood as an end in itself. Since critical thinking fuels the evolution of principles in that it challenges claims to validity, the critical thinking ideal supports education as an end in itself.

It is now clear that critical thinking ought to be the principle educational aim for the rational traditions. However, there appears to be an issue regarding whether critical thinking is a broad capacity that all rational individuals can apply to any subject, or if being a critical thinker is, in some restrictive way, subject specific. To argue that critical thinking ought to be the principle aim in all educational

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<sup>15</sup> *Ibid.*, 59.



pursuits, as I do, seems to suggest some general ability, or rather a foundational set of abilities, acquired through the teaching of critical thinking. One may argue that there cannot be such an ability, for the objects of thought that are entailed in any sort of thinking are necessarily diverse in both quality and kind. Due to this diversity there is not one limited set of abilities that can be applied to the wide range of topics and disciplines in which critical thinking can be functional.

This line of argumentation correctly understands that the rise of academic specialization entails that the diversity of academic pursuits have greatly increased. I do not dispute that the existence of a constant set of critical thinking skills that can be applied universally between these disciplines may be unlikely. Empirical knowledge is found through various methods, which are often so specific to their intellectual fields that they have little application in other areas. I want to highlight, however, that most successful intellectuals typically have a critical perspective on their subject matter. Understanding what is meant by Siegel's notion of a *critical spirit* is important here. As discussed earlier, critical thinking is more than just technical skill. For this reason, one should not seek a general *technical* skill of critical thinking. The universal quality of critical thinking is a normative perspective, not a set of empirical skills. In this way, a *critical spirit* is the general normative character required of all critical thinkers. This critical perspective of the world has its roots in the scientific revolutions of the 16<sup>th</sup> and 17<sup>th</sup> centuries, and later in the Age of Enlightenment. In the tradition of the modern era of intellectual inquiry, education ought to reform society and advance knowledge. It follows that there is a fundamental connection between all areas of intellectual pursuit via Siegel's concept of a *critical spirit*.

In both primary and secondary educational districts, high standardized test scores have become one of the most important indicators of a school's success. Because public funding is so strictly linked to high test scores, administrators and teachers encounter a necessity to produce high standardized test scores. In reaction to such pressures, educational institutions slim down and modify classroom curriculum to align it with the state's exam. Whether intentionally or not, the heightened focus on standardized testing systematizes education in such a way that may reduce education to an astringent expression of what one ought to know, or how one ought to think. This is why philosophy of education must concern itself with a defense of critical thinking as an educational ideal. I concede that: (1) having



a standard of excellence in education does not necessarily prevent critical thinking from being an ideal, (2) having such a standard entails a testing of it, and (3) society must have some method to assess what the student actually knows. However, establishing a rigid conception of what one ought to know is a step that ought to be taken very carefully and cautiously, for it is possible that, by standardizing all claims to fact, one may greatly devalue a student's ability to challenge such claims.

How educational success is defined is an important issue here. Simply equating high test scores with school success is a mistake. School districts ought to have a more nuanced understanding of what success in education is. It is easy to think of examples of students who can perform well on tests but lack some essential skills, such as communication skills, that are necessary to succeed in life. Critical thinking ability is foundational to the development of such skills. It is only when a student: (1) challenges the truth of the reasons that support a claim, and (2) is consciously motivated to get at the truth of the matter, that one is considered a critical thinker. Importantly, Siegel's definition of a critical thinker does not allow for the use of technical rational ability to be put at some end other than the end of truth (or at least as rational a position as possible).<sup>16</sup> A critical thinker is simply one who engages with the validity of the principles, criteria, and reasons society uses to verify a claim as true.

Upon reflection, it is evident that furthering the aims of the rational traditions necessitates educating students to be critical thinkers. This is not entirely because of the practical implications of doing the rational traditions well, e.g., discovering a renewable source of energy because a critical thinker challenged an inadequate principle, but also because, using Dewey's language, education is a constant *growth*. Students and educators alike are bound together by the constant pursuit of truth, and because truth is never complete truth, i.e., what we understand as true is always in revision, education must be aimed at producing critical thinkers. Critical thinking is the only way that our false assumptions, incorrect judgments, and inaccurate accounts can be challenged and thereby revisited and revised. In this way, remediating issues of social justice and encouraging scientific progress are both inextricably linked to critical thinking as an educational ideal. ❖

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<sup>16</sup> Harvey Siegel, "Truth, Testimony and Trust: Alvin Goldman on Epistemology and Education," *Philosophy and Phenomenological Research* 71.2 (2005), 350.

# To Gay, or Not To Gay?

Debra Bellamy

**Abstract:** This work examines the structure of discourses on homosexuality, taking the nature-versus-nurture question as a case study, in order to display the incoherency that results from taking such questions for granted. This paper critically explores the alleged neutrality and objectivity of discourses on sexuality, and within this exploration, a breakdown of the categories of sexuality, sex, gender, and nature occurs. What is shown is that the breakdown of these categories renders the nature-versus-nurture Question itself quite questionable.

Ever since sexuality became an object of discourse, the issue of homosexuality has spurred a plethora of inquiry and debate. One of the main questions of this inquiry into “the homosexual,” the Question perhaps, is the following: is homosexuality the result of nature (“they” are born that way) or nurture (external factors make “them” that way)? Both across and within various disciplines (i.e. medicine, biology, psychology, sociology, philosophy, etc.), serious debate has ensued over which answer adequately represents “the homosexual.” However, rather than attempt to answer this question in either direction, what this essay intends to do is problematize the Question as a whole, by showing the flaws of its fundamental suppositions. The legitimacy of this Question relies on the intelligibility of its terms (homosexuality and nature) and the categories to which these terms refer, and so it is these very categories that this paper shall challenge. Furthermore, there are certain implicit assumptions that this Question presupposes whose obviousness and accuracy shall also be contested here. As this Question is put into question, alternative inquiries that serve to further problematize this Question’s coherency



shall be suggested and discussed. The Question (nature or nurture?) is ultimately unintelligible because it relies on a network of erroneous assumptions about the “nature” of sex, gender, sexuality, and nature.

The possibility of posing this Question at all rests on the obvious assumption that there are homosexuals, and that there are some people to whom this term appropriately refers, and some people to whom it does not. In other words, this Question assumes that some people are, properly speaking, homosexual, and others are not, and that the distinction between the two is unambiguous. As Michel Foucault notes in his work *The History of Sexuality*, the assumption here is that “the homosexual” exists as a sort of species and, that there is a singular nature to homosexuality that encloses a distinct and unified category.<sup>1</sup> In *Sexing the Body*, Anne Fausto-Sterling similarly notes that sexual identity is perceived as a transparent and fundamental reality such that each person is obviously either gay or not gay, and that these distinctions allow for no ambiguity or admixture.<sup>2</sup> To say that homosexuality is a species with a fundamental reality is to say that homosexuality itself signifies a discrete and stable category, a completely unequivocal category, with clear-cut boundaries that determine who does and does not fall under its title. However, if it is the case (as this paper will argue) that the category of homosexuality is neither stable nor discrete nor unequivocal, then it is likewise the case that it is wholly unintelligible to claim that someone is or is not homosexual.

Judith Butler argues for this instability and fragility of the category “homosexual” in her essay “Imitation and Gender Insubordination.” Butler notes the impossibility of locating the common element among all homosexuals that determines them to be homosexual. For example, it is impossible to determine whether it is a particular type of practice, desire, or identity that universally distinguishes the gay from the not-gay.<sup>3</sup> Fausto-Sterling likewise notes this lack of commonality when she mentions the various models of homosexuality that are posited within scientific discourse, which variously identify the homosexual on the basis of things

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<sup>1</sup> Michel Foucault, *The History of Sexuality: An Introduction – Volume 1*, trans. Robert Hurley (New York: Pantheon Books, 1978): 43.

<sup>2</sup> Anne Fausto-Sterling, *Sexing the Body: Gender Politics and the Construction of Sexuality* (New York: Basic Books, 2000): 9.

<sup>3</sup> Judith Butler, “Imitation and Gender Insubordination,” *The Judith Butler Reader*, ed. Sara Salih (Malden: Blackwell Publishing, 2004): 124.

such as, “sexual attraction, sexual behavior, sexual fantasies, emotional preference, social preference, self-identification, hetero/homo lifestyle,” and others.<sup>4</sup> Sexuality, according to Butler, defies categorical representation insofar as every attempt to categorize or represent (homo)sexuality in a universal manner will inevitably face contradiction because sexuality always surpasses and exceeds any presentation or definition of it.<sup>5</sup> It is impossible to posit any totalizing, unifying, monolithic definition for homosexuality (or any sexuality) because to do so would be to eradicate the nuanced complexities of the sexuality one is claiming to “merely” define.

What this means is that, for the wide range of people who identify (or are identified) as homosexual, there is no single factor or trait that they all share which can be posited as that specific thing which makes them “a homosexual.” It may be objected that there are generalizations that can be accurately made, and this is not denied here, but the point is that any such generalization hides the fact that it is only a generalization, one that does not hold for the entirety of the people it is alleged to represent. The category “homosexual” is thus necessarily incoherent insofar as every attempt to disclose it is doomed from the start by the utter lack of commonality across the multifarious persons whom it alleges to describe. This being the case, it is unintelligible to inquire into the source of the category (nature or nurture) when the category itself (homosexuals or homosexuality) remains (necessarily) unintelligible and indefinable.

The second explicit assumption within the Question regards the issue of “nature” in its relation to sexuality. To say that someone is born a homosexual or to say that it is possible to be homosexual by nature, assumes a certain neutrality to the category of “natural” as something that transcends the realm of human intervention, when in fact it is only through human discourse and intervention that the category of “nature” takes on significance. In order to challenge the Question’s intelligibility, the more pressing inquiry regarding sexuality is the following: How is the category of “nature” discursively constituted? This new question can highlight the fundamental flaw in taking the nature of “nature” for granted.

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<sup>4</sup> Fausto-Sterling, *Sexing the Body*, 10.

<sup>5</sup> Butler, “Imitation and Gender Insubordination,” 131.



Scientific discourse claims to be purely neutral observation, but no theory is ever neutral because the nature that a scientific (medical, biological, psychological, etc.) theory claims to be merely observing and reporting on is constituted at the very moment that one observes and reports on it. It is not the case that scientists, in addressing inquiries such as the nature-versus-nurture Question, simply observe a preexisting truth about sexuality. Rather, “with the very act of measuring, scientists can change the social reality they set out to quantify,” and thus create the very truths about sexuality which they allege to merely describe.<sup>6</sup> It is one of the miraculous characteristics of science that it tends to find whatever it looks for, and this is because the nature that it looks for is constituted by social and political discourses as well as the epistemological conditions in which scientific research takes place.

As Thomas Kuhn explains in his famous work *The Structure of Scientific Revolution*, scientific research always proceeds under a particular paradigm (i.e. biology, physics, chemistry, genetics, etc.), and this paradigm dictates what types of phenomena the world “naturally” contains and thus what types of results an experiment should yield (for example, if you are working under chemistry’s paradigm, your world is comprised of chemical elements and compounds, and your research should yield information that deals with chemical issues). This being the case, Kuhn asserts that no practice, “thus restricted to reporting a world fully known in advance can produce mere neutral and objective reports” on its subject matter.<sup>7</sup> Furthermore, how a scientist interprets and reports their data is influenced by a number of factors, the data itself being only one factor among many. As one is trained to become a scientist, one is taught to see the world according to a particular scientific paradigm, and so different scientists will see the same “natural” phenomena in different ways, depending on how their education has taught them to see (and interpret) the world.<sup>8</sup> In addition to training under a paradigm, scientists are also influenced by their social and political beliefs and experiences such that “[w]hat a man sees depends both upon what he looks at and also upon what his

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<sup>6</sup> Fausto-Sterling, *Sexing the Body*, 10.

<sup>7</sup> Thomas S. Kuhn, *The Structure of Scientific Revolution* (Chicago: University of Chicago Press, 1962): 126.

<sup>8</sup> *Ibid.*, 110-111.

previous visual-conceptual experience has taught him to see.”<sup>9</sup> It is for this reason that if a scientist truly believes that homosexuality is natural, then that scientist will almost certainly be able to produce “objective” evidence to support this claim, and a scientist arguing for the opposite will be able to find equally “objective” evidence to support their own claim.<sup>10</sup> Questioning the neutrality of the category of nature thus illustrates the fact that social and political transformations produce correlative transitions in scientific accounts of nature insofar as these scientific accounts are influenced by the scientists’ social, political, and scientific world-views.<sup>11</sup> The category of nature must be questioned in order to demonstrate the fact that it is an instable category, and that the science that claims to “merely” report on this category is actually producing that very category in the move that reports it.<sup>12</sup>

It is not, however, only these explicit suppositions in the Question which call for examination; there are also hidden assumptions at work here that need to be addressed. Insofar as the category of homosexuality is posited, the binary categorization of sex/gender is simultaneously posited. When the claim is made that person ‘Q’ is gay, two things are assumed about ‘Q’: first, that ‘Q’ is gender/sex A (and not B), and second, that ‘Q’ is attracted to persons who are also sex/gender A (and not B).<sup>13</sup> The question that is begged here is the following: how would the discourse on homosexuality be affected if sex/gender were not limited to only two possible options? The significance of this particular question for elucidating the incoherency of the Question is that it leads to the recognition that sex/gender are not limited to only two expressions. The troublesome claim implied in the

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<sup>9</sup> *Ibid.*, 112.

<sup>10</sup> These comments are not meant to imply any sort of grand scientific conspiracy; two scientists looking at the same set of data can draw equally scientific and valid, yet contradictory conclusions about “nature” because scientists are influenced by both their “pure” observations and, more importantly, by the assumptions and expectations about nature that each scientist brings to the table when their research begins.

<sup>11</sup> Fausto-Sterling, *Sexing the Body*, 77.

<sup>12</sup> This is not to say that nothing “naturally” occurs or that there are no “natural” phenomena; the point is that what “nature” refers to is not necessarily these occurrences or phenomena.

<sup>13</sup> What this “attraction” means is intentionally left unclear, because as has been noted, the criteria for such a determination is lacking, so “attraction” here could mean any number of things (i.e. ‘Q’ is attracted to a certain type of anatomy, a certain orifice, a certain gender performance, a certain social identity, a certain fantasy, a certain sexual practice, etc.).



Question is the following: that there are, “naturally” speaking, only two possible genders/sexes (for without this claim, how can the notion of same-sex-attraction—homosexuality—be intelligible at all?).

In order to further problematize the Question, it is important to note that the appeal to nature employed as evidence for the naturalness of the binary sexual division (i.e. that “in nature” there is a clear and consistent binary distinction between men and women) does not hold up to scrutiny. The claim that there are truly, or naturally, only two sexes/genders is justified with reference to bodies. The logic runs: Bodies fit neatly into two boxes, so sex and gender must correspond one to each box. However, as Fausto-Sterling notes in her analysis of the intersexual (a person born with characteristics—physical, biological, hormonal, etc.—of both male and female physiology), bodies do not fit neatly into two boxes, and “nature” clearly suggests more than two possible sexes/genders.<sup>14</sup> The body of the intersexual displays the inconsistency of claiming that binary sex/gender divisions are “natural” because it shows a “natural” defiance to such claims. However, the binary divisions are still able to appear natural because all evidence of intersexuality is erased from view through surgical, hormonal, and behavioral “correction,” usually beginning immediately after birth.<sup>15</sup> It is only through this intervention and erasure that the male/female binary is able to appear natural. As Catharine MacKinnon notes in her work *Feminism Unmodified*, “Sex, in nature, is not a bipolarity; it is a continuum. In society it is made into a bipolarity,” through the intervention of mechanisms that correct and thus erase the anomaly that is the intersexual.<sup>16</sup> Some other means by which this bipolarity is naturalized shall be discussed below, but for now, suffice it to say that the appeal to “nature” here is flawed, for the naturally occurring phenomena (i.e. intersexuals) contradict the claim of a dichotomous sexual division. What is meant by “nature” is not these natural phenomena, but rather, a particular discursive production that is maintained by social, political, medical, and scientific discourses, practices, and interventions.

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<sup>14</sup> *Ibid.*, 31.

<sup>15</sup> *Ibid.*, 8.

<sup>16</sup> Catharine A. MacKinnon, *Feminism Unmodified* (Cambridge: Harvard University Press, 1987): 44.



Because of the way that the issue of the intersexual is intimately linked to the issue of homosexuality, recognizing the intersexual as a challenge to binary sex/gender divisions exhibits another reason why the Question is unintelligible. Since human sexuality is conceived of in terms of bodies, and bodies are thought to always correspond to one of two sexes, then a body that doesn't fit either box A or box B will frustrate conceptions about sexuality at a fundamental level. As Fausto-Sterling points out, "If intersexuality [blurs] the distinction between male and female, then it [follows] that it [blurs] the line dividing hetero- from homosexual."<sup>17</sup> In other words, if the intersexual is neither an A nor a B, then neither the As nor the Bs are the same (or the opposite) sex as the intersexual, and so it is impossible for the intersexual to be homosexual (or heterosexual). Additionally, since the sex of the intersexual is unclear, it is impossible to determine its "naturally" corresponding gender. Thus, the intersexual displays the incoherency of the binary categories of sex, gender, and sexuality. In the same instance, the intersexual also reveals the unintelligibility of the nature-vs-nurture Question, insofar as it challenges both its explicit and implicit presuppositions (the stability of the category of homosexuality along with the naturalness of the category of "nature," and the incoherency of binary divisions of sex/gender).

The intersexual thus opens up the possibility of further problematizing the Question by investigating sexuality along new paths of inquiry that highlight the inconsistencies of sexual discourse discussed above. One such question was already mentioned: how would the discourse on sexuality be affected if there were more than two options for the sex/gender of a person? With the inability to universally determine all bodies unequivocally as either male or female demonstrated, another question calls to be posited: in order for an intersexual to be either hetero- or homosexual, what must the sex/gender of their partner be? This question is itself wholly unintelligible, because the determination of one's sexuality as homo- or hetero- utterly depends on sex/gender binaries, and without such binaries, the coherency of these categories disintegrates. To reiterate, this is to say that, since the current conceptions of homo- and hetero-sexuality depend on binary divisions of gender (hetero means the two partners have opposite sexes/genders, and homo means they have the same sex/gender), the intersexual, who is properly speaking

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<sup>17</sup> Fausto-Sterling, *Sexing the Body*, 72.



neither male nor female, cannot be accurately described as either homo- or heterosexual. Since neither of the binary categories (male or female) is either the same as, or opposite from, the sex/gender of the intersexual, it is logically impossible for the intersexual to be, or not to be.

By interrogating the difficulties in determining the sexuality of an intersexual, the aim is to display the inability to definitively determine the sexuality of any person, not just the intersexual person who blatantly defies the traditional sex/gender dichotomy. As Judith Butler explains, there is similarly no “proper” sex/gender for the “normal” bodies, and the appearance of a natural or proper sex/gender is only the effect of imitative practices; sexes/genders are performed according to given socio-political norms, and these performances produce the appearance of natural expressions.<sup>18</sup> As Butler puts it:

...gender is a performance that produces the illusion of an inner sex or essence or psychic gender core; it produces on the skin, through gesture, the move, the gait (that array of corporeal theatrics understood as gender presentation), the illusion of an inner depth.<sup>19</sup>

Thus the presumed naturalness of binary divisions of sex/gender is an illusion that results from the repetition of behaviors that fit the binary model. We have already seen how the notion of bodily sexual difference as natural is maintained through intervention, and what Butler is pointing out here is that the correlative presumed natural division of gender is also reinforced by the expression, or performance, of this sex through gendered behavior, which in turn reinforces the belief in the natural division of the sexes. The behaviors typically associated with masculinity and femininity—alleged to correspond, naturally, to male and female bodies respectively—are learned behaviors, and as these behaviors are repeated again and again, they come to appear natural. However, the fact that these behaviors have to be learned and then continually repeated for an individual to clearly present as either male or female indicates that they are unnatural, for if these behaviors were natural, why would they have to be taught? Hence the question of

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<sup>18</sup> Butler, “Imitation and Gender Insubordination,” 130.

<sup>19</sup> *Ibid.*, 134.

“which partner must one choose to be either hetero- or homo-?” could, and should, be asked of all persons, and should illustrate the same incoherency for every-body that this question demonstrated with respect to the intersexual. If there are no “proper” (i.e. natural) A’s or B’s with respect to sexed bodies or gendered behaviors, then the A and B distinction is unintelligible, and if this distinction is unintelligible, then the determinations of sexuality that rest on these distinctions (i.e. Q is gay if Q is an A and so is Q’s partner) are likewise unintelligible.

By putting the Question into question we have thus demonstrated a variety of ways in which it is problematic, insofar as it depends on discrete, stable, consistent categories of sexuality, sex, gender, and nature that are nowhere to be found. Acknowledging this point directs one to yet another inquiry that challenges the Question: how is heterosexuality naturalized and thus normalized? It is clear from the above analysis that heterosexuality cannot be merely natural, insofar as “naturalness” does not appropriately refer to any categories of sex, gender, or sexuality, for “nature” is a highly suspect term. For heterosexuality to be “natural,” nature would have to strictly provide two, and only two, opposite sexes (which it doesn’t), who are naturally predisposed to behave in ways that correspond to the conventional notion of heterosexual behaviors (which they aren’t). The problem thus remains: if heterosexuality is not “natural,” then the manner in which it maintains its status as the norm ought to be interrogated.

Foucault touches on this issue in his historical analysis of discourses on sexuality. As sex became an object of study within various discourses (i.e. medical, psychiatric, scientific, etc.), these discourses produced various techniques and apparatuses for determining the “truth” of sex and sexuality (i.e. the confession), and this followed the same order as the scientific production of “nature:” these discourses produced the very “truths” they claimed to uncover.<sup>20</sup> These “true” discourses on sex/sexuality produced the “truth” of sex by placing it, “under the rule of the normal and the pathological,” wherein heterosexuality was deemed the norm and homosexuality was exhaustively pathologized.<sup>21</sup> To question heterosexuality’s

<sup>20</sup> Foucault, *History of Sexuality*, 56.

<sup>21</sup> *Ibid.*, 67.



status as norm directs one to the recognition that all ideas about sexuality have a history, and analyzing the history of heterosexuality's normative role highlights the instability of the categories of both homo- and heterosexuality.

Judith Butler explains that heterosexuality can only claim its status as the norm with reference to the abnormality of homosexuality. These two terms imply each other. Heterosexuality is only able to assert its status as the normal, the natural, and the original, in relation to that which it claims is the abnormal, the unnatural, and the derivative. Butler explains that, "The origin requires its derivations in order to affirm itself as an origin, for origins only make sense to the extent that they are differentiated from that which they produce as derivative."<sup>22</sup> In order for heterosexuality to claim normality, there must already exist an alternative sexuality from which heterosexuality can differentiate itself. As such, if one of the terms is unintelligible, the other one is likewise bound up in the same unintelligibility because the two terms, homo- and hetero-, gain their signification from each other, such that if the meaning of one of them is unclear then the meaning of the other must be equally unclear. To put it simply, heterosexuality is defined as not-homosexuality, and so if heterosexuality is asserted to be normal, then homosexuality must be defined as not-normal.

Furthermore, this dependence that heterosexuality has on homosexuality in order to define itself (as normal, or as anything whatsoever) can be demonstrated historically. The term homosexuality was introduced in Germany in 1869 to describe an alleged mental disorder, and it wasn't until 1880 that the correlative "normal" condition of heterosexuality was named and defined as the "natural" counterpart to homosexuality.<sup>23, 24</sup> Hence, given that the incoherency of the category of homosexuality has been established, and given heterosexuality's dependency on homosexuality for its own intelligibility, examining the normative status of heterosexuality demonstrates the incoherency of the hetero-norm.

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<sup>22</sup> Butler, "Imitation and Gender Insubordination," 128.

<sup>23</sup> This example is meant to illustrate not that homo- is the original and hetero- the derivative, but rather, that it is unintelligible to claim that either one is original or natural; they are both imitations of an ideal, natural, original that does not exist, insofar as all performances of gender/sex/sexuality are imitative.

<sup>24</sup> Fausto-Sterling, *Sexing the Body*, 14.

It is clear, then, that the Question is riddled with incoherencies regarding the stability of categories such as nature, sexuality (both hetero- and homosexuality), and sex/gender, as well as the interrelations among these indiscrete categories. However, there is another fundamental assumption implied in the Question that has been hinted at, but not directly interrogated: that sexuality is subject to truth-values, that is, that true and false claims can be made about it. The Question under scrutiny was not even a possible question until the nineteenth century when the *scientia sexualis* emerged as a technique for producing the truth of sex by producing true discourses on sex, and “sexuality” was named as the embodiment of this truth.<sup>25</sup> This transformation of sex into discourse, into an object of analysis, was not a neutral or objective scientific move: it was influenced by a political and economic imperative to know sex, motivated by the motto, “Sex, the explanation for everything.”<sup>26</sup> The precariousness of this move results from the fact that this truth of sex, much like the truth of nature, is not a cause but an effect that is determined by political, social, and scientific intervention. The discourses on sex/sexuality created the truths they claimed to describe, because within this discursive deployment of sexuality, “Sex was not something one simply judged; it was a thing one administered,” and regulated.<sup>27</sup> The assumption that sexuality is subject to truth-values is thus highly problematic, because it is an assumption influenced not by neutral observation, but by political motivation.<sup>28</sup>

The nature-versus-nurture Question is hence unintelligible on all accounts, not only because it relies on faulty assumptions about the coherency of categories of sex, gender, sexuality, and nature, but also because it depends on the erroneous belief that truth and falsity are categories that are appropriate to sexuality (i.e. that there are truly homosexual people, that it can truly be said to be by nature or nurture, that nature is the true and all else is false, pathological, and abnormal, a

<sup>25</sup> Foucault, *History of Sexuality*, 68.

<sup>26</sup> *Ibid.*, 78.

<sup>27</sup> *Ibid.*, 24.

<sup>28</sup> There is no room in this paper to discuss this issue at any great depth here, but for more information on this issue, see Foucault’s *History of Sexuality*. In short, the problem with alleging “true” discourses on sexuality is the problem of making universal claims about sexuality, since, as was discussed, such universal claims are always exceeded and surpassed by the group they allege to universally describe (and the notion of truth at work in such discourses is a notion of truth as something universal).



defect, etc.). In relation to this unintelligibility of the Question, a variety of other questions were posed to both highlight and substantiate the facets of this unintelligibility, such as interrogating the category of nature itself, questioning the relation between sex, gender and sexuality, and investigating the normality heterosexuality is proposed to have. A more in depth examination might also pose such questions as: “how do social and political discourses effect the naturalization of scientific discourses?” or, “what are the dangers implicit in answering the nature-versus-nurture Question in either direction?” or even, “what is at stake (politically, economically, socially, etc.) in questioning heterosexuality’s status as norm?” Now that the unintelligibility of the nature-versus-nurture question has been exhibited with respect to its categorical assumptions, further inquiry into the history of these terms and their various manifestations (both historical and contemporary) ought be pursued. For now, though, one must settle for the conclusion that without stable, discrete, coherent categories of sex, gender, sexuality, and nature, it is wholly unintelligible to ask questions that take these categories for granted and that imply the possibility of making true or false claims with respect to these constructed, contingent, inconsistent, and incoherent classifications. ❖

# Finite in Infinity: Spinoza's Conception of Human Freedom Explained Through His Metaphysics

Hannah Laurens

**Abstract:** One of the main themes in Spinoza's *Ethics* is the issue of human freedom: What does it consist in and how may it be attained? Spinoza's ethical views crucially depend on his metaphysical theory, and this close connection provides the answer to several central questions concerning Spinoza's conception of human freedom. Firstly, how can we accommodate human freedom within Spinoza's necessitarianism—in the context of which Spinoza rejects the notion of a free will? Secondly, how can humans, as merely finite beings, genuinely attain freedom? Can Spinoza defend his claim that we may even attain *blessedness*? I will argue that these questions are answered by appeal to a twofold in human nature. According to Spinoza, we are finite in infinity.

## I. Introduction

One of the main themes in Spinoza's *Ethics* is the issue of human freedom: What does it consist in and how may it be attained?<sup>1</sup> Prior to the discussion of human freedom, we find the *Ethics* greatly concerned with metaphysics, and this is no coincidence. Spinoza's ethical theory, where how to live well is equaled with how to live freely, is closely intertwined with his metaphysical theory. His metaphysics provide the cognitive foundation upon which his ethical views are built.

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<sup>1</sup> Baruch Spinoza, *Ethics*, trans. and ed. G. H. R. Parkinson (Oxford: Oxford University Press, 2000).



This close connection is crucial, and I will argue that it provides the solution to two problematic aspects of Spinoza's view on human freedom: firstly, how can we accommodate human freedom within Spinoza's *necessitarianism*—in the context of which Spinoza rejects the notion of a free will? This triangle of notions will briefly be discussed in the first section of my paper while exposing the cornerstones of Spinoza's metaphysics.

Secondly, how can humans as finite beings genuinely attain freedom? This second question is discussed in the following sections of my paper. I will start by exploring Spinoza's two conceptions of human freedom found in the *Ethics*. I will explain the idea of *adequate knowledge through reason* and how that leads to some degree of human freedom. Essential herein is the notion of *conatus*, i.e. each individual's inner drive to persevere in his/her being. This part of Spinoza's ethical theory is very naturalistic: He gives a detailed account of how human nature works emotionally. He exposes the laws of human nature and how a proper understanding of these clears the path to freedom. I will then discuss the more abstruse conception of freedom found in Spinoza: Through *intuitive knowledge* we may attain *blessedness*. By becoming blessed one reaches the pinnacle of human existence: ultimate freedom.

I will show how an accurate understanding of Spinoza's thesis of intuitive knowledge and blessedness will shed light on the puzzles concerning human freedom. We will come to see that the human mind is twofold. I will argue that human freedom, both through reason and blessedness, is best explained by appeal to this twofold. This explanation simultaneously allows for human freedom within Spinoza's deterministic universe. My argument shows how deeply Spinoza's metaphysics has penetrated and shaped his ethics.

## **II. A Necessitarian Context Without Free Will**

How does Spinoza manage to defend both a necessitarian outlook on the universe and allow for human freedom? Why does he reject the notion of free will, and how can it be irrelevant to human freedom? Let's first see what Spinoza's necessitarianism amounts to.



Spinoza's *necessitarianism* is most clearly stated in E1p16 and E1p17s:

There must follow, from the necessity of the divine nature, infinite things in infinite ways [...]. [...] I have shown with sufficient clarity (see Prop. 16) that from the supreme power of God, or, from his infinite nature, infinite things in infinite ways (that is, all things) have necessarily flowed or always follow with the same necessity [...].<sup>2</sup>

Spinoza contends that there necessarily exists one unique substance, and he calls it God or Nature.<sup>3</sup> God is necessarily infinite, i.e. is unlimited in any possible way.<sup>4</sup> Besides substance/God, Spinoza recognizes attributes and modes in his ontology. Attributes are ways in which our intellect perceives of substance. We may, for example, perceive substance through the attribute of extension (i.e. by perceiving three-dimensional bodies in space), or we may perceive substance through the attribute of thought by thinking. Modes for Spinoza are “determinate expressions” of the attributes: “Particular things are nothing other than the affections, i.e. modes, of the attributes of God, by which the attributes of God are expressed in a certain and determinate way.”<sup>5,6</sup> Thus all things that we encounter as ordinary objects in daily life are modes of the one unique substance. A human body so understood is a determinate expression or affection of God's attribute of extension.

In contrast to substance, Spinoza claims that modes are finite.<sup>7</sup> They depend on God for their existence, and, as such, they are not self-sufficient. They only exist for a limited amount of time and have limited powers and possibilities. The dependency of finite modes on substance is stressed by Spinoza's claim that finite modes exist “in” God: “Whatever exists exists in God, and nothing can exist or be conceived without God.”<sup>8</sup> Insight into the nature of the relationship between modes and substance, into the meaning of this “existing in,” is of key importance.

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<sup>2</sup> Spinoza, *Ethics*.

<sup>3</sup> E1p5, E1p7, E1p11, E1p14.

<sup>4</sup> E1p11, E1p8.

<sup>5</sup> E1p28.

<sup>6</sup> E1p25c.

<sup>7</sup> E1p28.

<sup>8</sup> E1p15.



In the above statement of Spinoza's necessitarianism, we see that from God's infinite nature all that follows necessarily.<sup>9</sup> Thus there is only one true cause in the universe: God. God alone is a free cause: "God acts from the laws of his nature alone, and is compelled by no one."<sup>10</sup> Everything else is determined by God.

In this necessitarian context the **rejection of a free will** is only a logical consequence: "There is in the mind no absolute, i.e. no free will, but the mind is determined to will this or that by a cause, which is again determined by another [...] and so on to infinity."<sup>11</sup>

The will is understood as unfree as it is never uncaused, i.e. it is never a cause solely dependent upon itself. Being finite beings, we are necessarily in touch with other people and things. We are part of an "infinite chain of causes" and our will is always influenced by external causes: it cannot be free.<sup>12</sup> Spinoza explains free in terms of *necessity by one's own nature* and *causal power*: only that which exists and acts from the necessity of its own nature alone is free.<sup>13</sup> The common notion of a free decree of will simply does not apply. A free will is sheer illusion, caused by ignorance:<sup>14</sup>

Men are deceived in that they think themselves free, an opinion which consists simply in the fact that they are conscious of their actions and ignorant of the causes by which those actions are determined. [...] The decrees of the mind are simply the appetites themselves [...]. [...] So the decrees of the mind arise in the mind

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<sup>9</sup> E1p16.

<sup>10</sup> E1p17.

<sup>11</sup> E2p48.

<sup>12</sup> E1p28.

<sup>13</sup> E1def7 & Letter 58, Spinoza to Schuller for Tschirnhaus. Reprinted in *A Spinoza Reader: The Ethics and Other Works*, ed. and trans. Edwin Curley (Princeton: Princeton University Press, 1994): 266.

<sup>14</sup> Even God does not have a "free will:" firstly, the notion of "will" as we know it does not belong to God's nature (E1p32c2). Secondly, the necessity of God's nature is what determines the universe in a way that could not have been different; God does not operate by means of "freedom of will" (E1p32c1&2).

with the same necessity as the ideas of things that actually exist. Therefore, those people who believe that they [...] do anything by a free decree of the mind, dream with their eyes open.<sup>15,16</sup>

Spinoza believes that in any case it is impossible to freely will one of two opposite courses of action.<sup>17</sup> A supposedly free will is merely a reflection of one's natural disposition towards a preferred course of action.

But how do these views then leave room for human freedom, for genuine choice in action and ethical responsibility? Tschirnhaus, a regular correspondent of Spinoza, formulates this worry in a letter: "Also, if we were compelled by external things, who could acquire the habit of virtue? Indeed on this assumption every wicked act would be excusable."<sup>18</sup>

If our will is necessarily determined by external causes, and if all happens with necessity from the nature of God, then how are we accountable for our actions? How can we be said to have genuine autonomy over our behaviour?

Spinoza presents his answer in parts 4 and 5 of the *Ethics*. He begins by explaining that a certain degree of autonomy, of freedom, is possible through adequate knowledge.

### III. *Conatus*, Reason and Freedom

To every individual Spinoza ascribes a *conatus*: the inner drive of every being to persevere in its existence.<sup>19</sup> As finite beings, however, we humans are necessarily limited by other finite beings.<sup>20</sup> We are always subjected to external causes: other people and things affected us. Insofar as we are affected positively, our *conatus* is supported. Insofar as we are affected negatively, our *conatus* is hindered.

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<sup>15</sup> E2p35s.

<sup>16</sup> E3p2s.

<sup>17</sup> "I deny that I can think, by any absolute power of thinking, that I do will to write and that I do not will to write." Letter 58, reprinted in Curley, *A Spinoza Reader*. Also see E2p49d: "The mind [...] cannot have an absolute faculty of willing and being unwilling."

<sup>18</sup> Letter 57, Tschirnhaus to Spinoza, 8 October 1674. Reprinted in Curley, *A Spinoza Reader*, 266.

<sup>19</sup> E3p6, E3p7.

<sup>20</sup> E1d2.



Spinoza explicates this thesis through the notions of *passions* (both positive/negative affections supporting/hindering our conatus) and *actions* (positive processes (not affections) whereby we act from our own nature) which are based on “inadequate” and “adequate” ideas, respectively.<sup>21</sup> In daily life, we are affected by many external influences, which cause emotions in us. These emotions often lead to confused ideas, i.e. inadequate ideas. Proceeding from inadequate ideas, we are necessarily passive, as the external causes have a hold on our state of being.

Spinoza believes that this is how most of us operate most of the time. We go through life being swept away on currents of pleasure and pain and feel powerless in the face of the challenges that life presents. However, he presents us with a way of overcoming the passions, resulting in at least a *certain degree of freedom*.

It is through adequate ideas generated by “adequate causes” that freedom can be attained. For us, an adequate cause follows from our inner nature alone, and is not influenced by external circumstances.<sup>22</sup> Because “reason demands nothing contrary to Nature,” Spinoza believes that our inner human nature and power lies in *rationality*.<sup>23,24</sup> Therefore, the ideas based on reason will lead us to a more stable state of being, in which we are less affected by the passions. It is not rationality itself that overpowers the passions because emotions can only be overcome by other emotions.<sup>25</sup> Passions may only be transformed by reason-generated emotions. Reason also provides the primary basis for ethical actions or *virtue*.<sup>26</sup> How does Spinoza establish this connection between reason and virtue? Virtue, for Spinoza, is simply that in which our nature and essence consist.<sup>27</sup> As such virtue equals acting in accordance with reason. Thus, via reason, we gain an accurate understanding of the nature of God and of the necessity of the universe. With clarity of mind we are able to understand particular situations better and deal with them more virtuously.

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<sup>21</sup> E3p11, E3p11s, E3p12, E3p13.

<sup>22</sup> E4App2.

<sup>23</sup> E4p18s.

<sup>24</sup> E4App3.

<sup>25</sup> E4p14.

<sup>26</sup> E4p56d.

<sup>27</sup> E4def8.

Through adequate ideas our passions are transformed into actions, and our conatus succeeds on the bedrock of solid insights. Reason provides a steady beacon amongst the unavoidable whirlwinds of life.

Subtly but surely Spinoza's views on freedom have now shifted. Earlier on we noted that freedom was defined both in terms of causal power and acting from the necessity of one's own nature. Initially, Spinoza claimed that only substance/God had free causal power. However, through reason human beings are also granted genuine causal power, even if only to a lesser degree. How can this be: is Spinoza not contradicting himself?

#### IV. Blessedness

At this stage, we are able to deal with the passions: guided by reason and truthful to our nature, we may act in all circumstances with wisdom and courage. But is that really all that our freedom amounts to: being able to remain relatively composed in the flux of life, keeping up faith in the bad times as well as in the good? Is being free indeed confined to a negation, to a "free from" definition? As one would perhaps expect from Spinoza, the answer is: no. Nothing less than pure *blessedness* will do.

Through his thesis of blessedness, Spinoza reveals his conception of ultimate freedom. For our discussion, this thesis is of key importance as it will give us the clues to the answers we are looking for.

When one reasons through adequate knowledge, one achieves greater clarity of mind and is able to discern the true nature of things clearly and distinctly.<sup>28</sup> Clear and distinct knowledge through reason might even give rise<sup>29</sup> to the highest form of knowledge possible for us, i.e. *intuitive knowledge*.<sup>30</sup> According to Spinoza, we can consider particular things/modes in two ways: either we consider them related

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<sup>28</sup> E2p29s.

<sup>29</sup> Spinoza clearly states that intuitive knowledge is not rational inference, but intuitive insight. As such, it is a fundamentally different kind of knowing and not a more advanced sort of rationality. However, as intuitive knowledge is based on an adequate understanding of the nature of being, which can be acquired through reason, reason may serve as basis for intuitive knowledge.

<sup>30</sup> E2p40s2.



to time, or understand them *sub specie aeternitatis*.<sup>31</sup> Understanding modes in this second manner, i.e. under a “species of eternity,” is what Spinoza describes as having intuitive knowledge.<sup>32</sup> It means that we do not understand particulars in relation to duration. We do not conceive of them as entities existent in time, but we discern as it were their most fundamental features which are timeless. We come to understand the true essence of modes and see that it is eternal and unchanging: “The essences of singular, changeable things [...] is to be sought only from the fixed and eternal things [...]”<sup>33</sup> Through this kind of understanding we gain insight into how particular essences relate to substance. We will see shortly how an understanding of this relationship will give us a crucial lead in solving the problems concerning freedom. The result of intuitive knowledge is a deepened knowledge of God, which leads in turn to an “intellectual love of God.”<sup>34</sup> According to Spinoza we will come to understand the fundamental nature of the world we live in. This leads to a sense of contentment that is deeper than any emotion that can arise from the passions, and it is in this state of loving God that blessedness consists. The highest endeavour of our minds is fulfilled: ultimate freedom is attained.

It has been claimed that the state of blessedness is set as an example at which we can only aim, but which is in practice unattainable.<sup>35</sup> Spinoza agrees that we fluctuate between degrees of freedom, as “we live in a state of continuous variation,”<sup>36</sup> but the wise man may nourish himself through reason and intuitive knowledge, reaching a state in which he “always possesses true contentment of mind,”<sup>37</sup> i.e. blessedness. The purpose of the *Ethics* is to convince us of what our true happiness consists in and to guide us on the path towards genuine freedom. If blessedness would be impossible, his purpose seems defeated: why would we bother? Spinoza does admit that “the way [towards it is] very arduous,” but believes that “yet it can be discovered.”<sup>38</sup>

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<sup>31</sup> E5p29s. Note that Spinoza’s conception of eternity is not endless and beginningless time.

<sup>32</sup> E2p40s2, E5p36s.

<sup>33</sup> Spinoza, “Treatise on the Emendation of the Intellect,” in Curley, *A Spinoza Reader*, 54.

<sup>34</sup> E5p32c.

<sup>35</sup> Michael Della Rocca, *Spinoza* (New York: Routledge, 2008): 204.

<sup>36</sup> E5p39s.

<sup>37</sup> E5p42s.

<sup>38</sup> *Ibid.*

## V. Finite in Infinity

No matter how promising blessedness sounds, at this point we are still left with Spinoza's seemingly contradictory statements: on the one hand, only God can be a free cause, on the other hand, freedom, both through reason and blessedness, is possible for finite human beings. In addition Spinoza contends that genuine human freedom is possible in his deterministic universe. How can Spinoza endorse these outwardly opposing claims?

I argue that these tensions can be resolved by acknowledging a *twofold in the nature of human beings*. God is the only substance that exists and human beings are finite modes of God. However, when we know things through intuitive knowledge, we view the world from under a species of eternity and gain an adequate understanding of the essence of particulars. We come to know the fundamental nature of modes: their essence is eternal.

My claim is that through Spinoza's thesis of intuitive knowledge we see that the ultimate reality of anything that exists is nothing less than eternal substance itself. The eternity of the essence of particulars can only be a case of instantiation of substance, as "eternity belongs to the nature of substance."<sup>39</sup> We can interpret the *existing in* relationship between modes and substance as follows: for a mode to exist in God means that its essence instantiates substance.

When we now apply this thesis to human beings, the following story unfolds. Considering ourselves under a species of eternity, we discover that there is an eternal element even within our own minds.<sup>40</sup> We come to understand that the true essence of our own minds is substance/God: the *essence of our minds instantiates God*. We thus have a twofold nature: we are finite and our existence is in time, but simultaneously our essence instantiates timeless substance. It is this twofold that finally resolves the persisting problems that we have been faced with.

Let's first see how finite beings can have genuine free causal power. Insofar as we are finite we are limited and necessarily influenced by other finite beings. But insofar as our essence is substance/God, we directly express the divine nature and

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<sup>39</sup> E1p19d.

<sup>40</sup> E5p23.



instantiate God. Genuine human *action* is possible, because insofar as we instantiate God, we have the powers that God has, *including free causal power*. The more we act through our eternal mind, i.e. the mind that instantiates God/substance, the more we act from our inner nature and the more causal power we manifest. In acting through reason and intuitive knowledge, we proceed from our eternal essence, and we are necessarily free from external causes. Thus, freedom is possible for finite beings.

Secondly, how can Spinoza account for free action in a deterministic universe? Human freedom fits into Spinoza's necessitarian framework in two ways. Firstly, even if we as finite beings occasionally display true causal power, the course of the universe can still be determined by necessity. Our action is genuinely determined by *us*, but *that* it is determined by us, can be so of necessity. There is nothing logically inconsistent in that, keeping Spinoza's definition of *free as self-determined* (which is not *undetermined*) in mind. Another perspective presents itself as follows: because the essence of the human mind instantiates God's nature, our free human actions *constitute the necessary course of events*. Our eternal human essence even *determines the necessary course of the universe*. God/substance is understood as timeless, and, therefore, the cause by which all things flow should likewise not be understood within a time-framework. When we think of determinism, we ordinarily think of a series of events with a beginning in time from which all subsequent events follow with necessity. We perhaps imagine Spinoza's universe in a similar fashion with God at the very beginning of this series of events. But this is incorrect. God's nature and the necessity of the universe are not to be understood in such a time-framework. As Spinoza says, "[...] all these [eternal] things [i.e. God] are at once."<sup>41</sup> Even though we ordinarily experience the universe and its unfolding events in time, God's nature and its necessary consequences are a timeless given, something that simply obtains. Self-determined human action does not then consist in a change of a pre-determined course of events. Instead, free action originates directly from the nature of substance, and it *instantiates* the necessary course of events. Free human action is not in opposition to necessitarianism. Our eternal essence shapes the necessary course of events and our actions constitute it.

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<sup>41</sup> T§102.



Thus we see that this twofold in the nature of the human mind plays a crucial explanatory role in resolving the issues concerning human freedom. Although Spinoza does not explicitly appeal to this twofold to explain human freedom, it is referred to in many of his metaphysical claims. There is strong textual support for believing that Spinoza would assert this twofold in human minds.

Firstly, Spinoza explicitly states that the human mind is part of the mind of God:

[...] the human mind is a part of the infinite intellect of God. Therefore, when we say that the human mind perceives this or that, we are simply saying that God—not insofar as he is infinite, but insofar as he is explained through the nature of the human mind, or, insofar as he constitutes the essence of the human mind—has this or that idea.<sup>42</sup>

It is an explicit statement that God constitutes the essence of the human mind. As Spinoza is otherwise adamant that we are finite beings and not infinite substance, we must be twofold.

Spinoza also holds that both adequate and inadequate ideas necessarily make up the human mind and that they depend on different causes.<sup>43,44</sup> We see this idea reflected in Spinoza's claim that we act through one part of the mind, while through another we are acted upon, clearly suggesting a twofold: "For the eternal part of the mind is the intellect, through which alone we are said to act. But the part which we have shown to perish is the imagination, through which alone we are said to be acted on."<sup>45</sup>

More support for my thesis is found in Spinoza's treatment of the intellectual love of God, i.e. blessedness. Spinoza claims that that our intellectual love for God *is* God's love for himself

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<sup>42</sup> E2p11C.

<sup>43</sup> E3p9d.

<sup>44</sup> E2p29s.

<sup>45</sup> E5p40c.



The intellectual love of the mind for God is the love by which God loves himself. [...] It is an action by which God, insofar as he can be explained through the human mind, contemplates himself with the accompaniment of the idea of himself. [...] the love of God for men, and the intellectual love of the mind for God, is one and the same.<sup>46</sup>

We can only make sense of this claim if human minds do indeed instantiate God directly.

The clearest indication of the twofold is perhaps found in E5p23: “The human mind cannot be absolutely destroyed with the human body, but there remains of it something that is eternal.”<sup>47</sup> Spinoza unquestionably distinguishes a part of the mind that perishes and a part of the mind that cannot be destroyed.

The textual evidence for my thesis that human minds are twofold is plenty and present throughout the whole of Spinoza’s *Ethics*. Appeal to this twofold in the nature of human minds provides a plausible and effective solution to the problems concerning human freedom. As finite beings we are necessarily acted upon by external causes, and therefore we cannot solely proceed from our own nature. But insofar as our eternal minds instantiate substance/God, we can be said to genuinely have free causal power. Our free actions are self-determined and constitute the necessary course of the universe.

## VI. Conclusion

Spinoza’s metaphysics fundamentally determines his ethical system. He defines freedom in terms of necessity by one’s own nature and causal power: only that which exists and acts from the necessity of its own nature alone is free. By that definition, only substance/God is a free being, and humans as finite beings are necessarily unfree. However, Spinoza does claim that a certain degree of human freedom is possible through reason and that we may even attain ultimate freedom: blessedness is achievable. These seemingly contradictory statements are explained through Spinoza’s metaphysics. The human mind is twofold. Because the essence

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<sup>46</sup> E5p36.

<sup>47</sup> E5p23.

of the human mind instantiates God, we have the powers that God has, including free causal power. When proceeding purely from our essence, we genuinely act freely. The twofold also explains how Spinoza can account for human freedom in his deterministic universe. Even though our free actions may not be undetermined, they are self-determined, thus free. Furthermore, because our essence instantiates God's eternal nature, we directly determine the course of the universe: our free actions *constitute* the necessary course of events.

Finite in infinity, we may be free. ❖



# Elegy to Narcissus

Peter Antich

## Articulation

This poem is a musing on the thought of Heraclitus. The central opposition I reflect from Heraclitus' fragments is sleep and wakefulness. This opposition is encountered throughout the fragments as the opposition between life and death, vision and darkness, and wisdom and ignorance.

For Heraclitus, philosophy is wakefulness. Thus, this poem is also a musing on philosophy. Wisdom attends to logos, which holds always, governs everything, and is common to all who attend to it. However, "most people live as if they had their own private understanding."<sup>1</sup> Again, "For the waking there is one common world, but when asleep each person turns away to a private one."<sup>2</sup>

A moment's reflection will verify the value of Heraclitus' claim. At some level, language allows for commonality. You, as the reader, and I, as the writer, share in these words. Language allows us to identify things, to identify commonalities in the universal flux. But, for Heraclitus, logos is also divine. Properly speaking, the logos is neither objective nor subjective, it is simply common. Outside of the logos there is no knowledge, no wisdom, no permanence; there is only forgetfulness and ignorance.

However, Heraclitus says, "Though at variance with itself, it agrees with itself."<sup>3</sup> This is among the most puzzling of Heraclitus' ideas. How do sleep and wakefulness agree? In the fragments, as in life, sleep falls into wakefulness,

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<sup>1</sup> Curd, Patricia, ed., *A Presocratics Reader*, trans. Richard D. McKirahan (Indianapolis: Hackett Publishing Company, Inc., 1996): 30, 22B2.

<sup>2</sup> 22B89.

<sup>3</sup> 22B51.



wakefulness into sleep. Where does one cross over into the other? What really holds the two apart? Where is the line between philosophy and pure, simple mindlessness? The poem can only ask these questions.

The poem entrusts this task of thinking to the myth of Narcissus.

### **Elegy to Narcissus**<sup>4</sup>

I awoke when the broad-fingered oak, falling, touched upon me.  
When it hit, the note it sounded was the dawn,  
And through all our roots roared the birthing chord.

The low cloud, called from the expanse, echoed three  
“Jetzt komme feuer”<sup>5</sup>

And from our branches the dew was gone.

Twixt the trunks, with iron-flame, the sun-chariot we called our lord.

In the stillness  
    Low was the secret borne  
How the darkness  
    Soon had us forsworn  
And in the silence  
    Mellow the mists retreat  
So we may hear the cadence  
    Echo the mourning dove suite

Not without reason is it from the east that wakefulness is kindled.  
Unhappy Euros<sup>6</sup> accompanies the sun, and when he overturns the vessel  
The dryads offer sacrifices, for the forest must have sunlight.

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<sup>4</sup> In Greek mythology, a notoriously handsome hunter, who died upon seeing his own reflection. The name Narcissus seems to be related to the Greek word for numbness. Survived by the nymph Echo, who was rather taken with him. By some accounts, from the blood of Narcissus grew the flower of that name.

<sup>5</sup> “Now comes fire.”

<sup>6</sup> The East Wind; often bringer of rain.

In the heat it is easy to give in to sleep, and be Narche's<sup>7</sup> kindred,  
 But there is need for us in the woods to awaken him whom amidst the leaves is nestled,  
 Because if he lingers long, on toes of silence, long-eared Ampelos<sup>8</sup> will stop up his sight.

Awake, I kindled the sleeper; I told him to awaken.  
 Asleep, he touched the dead, and beckoned them to sleep.  
 For beside the restful in the woods, stretch the relics of the dead.

Thunderbolt from the skies echoes: “θάνατός ἐστιν ὀκόσα ἐγεθθέντες ὀρέομεν”  
 “ὀκόσα δὲ εὐδοντες ὕπνος”<sup>9</sup> and beckons sweet Kraneia<sup>10</sup> weep,  
 Whence flow hallowed streams, which one must follow.

In the river  
     Hastened the law revealed  
 How the hour  
     Forgot had us concealed  
 From the deep sap bark  
     Hallowed a shrine to you I spoke  
 Who out from the biting darkness  
     Reminded had yet awoke

Sleep, on wings of silence, alighted on my eyes.  
 When I reached the clearing spoken by those wings  
 Where such branches rest, rotten and turgid, as whose eyes gleam opaque.

And, on tongues of silence slow, they whispered to me of  
 All they say is best in life, which to recognize is sleep, and I

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<sup>7</sup> Sleep.

<sup>8</sup> The vine; friend to Dionysus and mocker of the Moon.

<sup>9</sup> Perhaps, “What we see when awake is death, what we see asleep is sleep.”

<sup>10</sup> The Dryad of the Dogwood.



Close my ears that I might hear, and from them run in shadows,

And with me run the ghosts

For it had been not long since

Dawn that they by lean

Boreas<sup>11</sup> were spirited away

And I came up far north to hard Pindus<sup>12</sup> yaw

At the dripping mouth of old Achelous<sup>13</sup>

Whose waters they say began

At the tears I saw of

Sleepless Niobe<sup>14</sup> my

Reflection in silver pools

And I showed the day's silken water wash upon me

And I surrender to sweet sleep

And whenever they ask me

“Was aber jener thuet”

To the silent ear she echoes

“Weis niemand”<sup>15</sup>

Yet, when we sink our roots into the supple soil of such words,

Then blooms forth this gallant flower

Whose petals mark out dreams;

Whose tendrils venture toward the Sun. ❖

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<sup>11</sup> The North Wind; snatcher of Oreithyia.

<sup>12</sup> A mountain in Northern Greece.

<sup>13</sup> A Greek river.

<sup>14</sup> A Greek divinity who, robbed of her children, was turned to stone and continues to weep unceasingly. By some accounts the source of the Achelous, though this would make little sense geographically.

<sup>15</sup> Together, “But what that one will do nobody knows.”