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ABSTRACT

John Money, a sexologist and psycho-endocrinologist at Johns Hopkins University, coined neologisms and theories on the development of gender identity. A pioneer in this field, Money researched Intersex and Trans individuals, and established a precedent for both communities in terms of psychological support, sex reassignment surgeries, and acceptance. Nevertheless, his work was still bound by social expectations and constructs engrained in the gender binary. This thesis asks the following question: how did John Money impact Queer Politics? To answer the question, the first chapter discusses Money's neologism of gender and the evolution of gender as a concept, especially in the twentieth century. The history of gender as an idea is central to understanding the intricacies between society and science, and the creation of a pseudo-biology of gender. This section overviews the interplay of science and gender in the post-World War II period, then will discuss Money's pioneering theory of gender neutrality and his work on sex reassignment surgeries. Then, chapter two offers a narrative on David Reimer, and how Money's career was tarnished, in essence becoming a pariah. The thesis then presents an analysis of the reaction of the Intersex and Trans communities to the Reimer case, after defining them. A Queer Theory analysis of the case is central to this chapter. Chapter three looks at the relationship between Money's neologism, feminism, and queer theory first and discusses his legacy in the queer political discourse, as his theories were contemporary to both these movements. Then, it explores Money's role in bridging science and society during a tumultuous time frame of conservatism and sexual liberalism, and attempts to shed light on the pseudo-biology of gender. The thesis concludes on the interaction between science and society, and how despite Money's pioneering ideas, he was bound by conservative concepts of gender which led to his perception as a pariah. The legacy left by Money on queer politics is primarily a *sine qua non* debate on the understanding of gender through science and on the importance of queer bodies and voices in the larger discussion on gender.

KEYWORDS

John Money, Queer Politics, Gender, Pseudo-Biology, Sexology.

ABSTRACT

John Money, Sexologe und Psychoendokrinologe an der Johns Hopkins Universität, prägte Begriffe und Theorien zur Entwicklung von Geschlechtsidentität. Als Pionier auf diesem Gebiet erforschte Money intersexuelle und transsexuelle Menschen und schaffte einen Präzedenzfall für die genannten Communities in Bezug auf psychologische Unterstützung, gesellschaftliche Akzeptanz und Geschlechtsumwandlungsoperationen. Seine Arbeit war aber immer noch an soziale Erwartungen und Konstrukte gebunden, die tief in der binäre Geschlechterordnung eingebettet waren. Die vorliegende Arbeit stellt die Frage nach John Money's Einfluss auf Queer-Politik und diskutiert im ersten Kapitel Money's Begriffe von sozialem Geschlecht und die Entwicklung des sozialen Geschlechts als eigenes Konzept und fokussiert sich besonders auf das zwanzigste Jahrhundert. Die Geschichte des sozialen Geschlechts als solches ist von zentraler Bedeutung für das Verständnis der feinen Beziehungen zwischen Gesellschaft und Wissenschaft und die Konzeption einer „Pseudo-Biologie“ vom sozialem Geschlecht. Deswegen widmet sich ein eigener Abschnitt dem Überblick über das Zusammenspiel von Wissenschaft und Gender in der Zeit nach dem Zweiten Weltkrieg. Den Kern bildet Money's wegweisende Geschlechtsneutralitätstheorie und die Diskussion seiner Arbeit zu Operationen zur Geschlechtsumwandlung. Kapitel zwei berichtet vom Fall David Reimer, und wie dieser Money's Karriere zerstörte und ihn im Grunde zum Außenseiter machte. Die Arbeit analysiert auch die Reaktion der vorab definierten Intersex- und Transcommunity auf den Reimer-Fall, wofür das Kapitel sich der Queer-Theorie bedient und diese auch analysiert. Kapitel drei der Arbeit betrachtet zunächst das Verhältnis zwischen den von Money geprägten Begriffen, Feminismus und seiner Queer-Theorie und diskutiert sein Vermächtnis im queeren politischen Diskurs, da seine Theorien maßgeblichen Einfluss auf diese Bewegungen hatten. Weiters wird Money's Rolle als Vermittler zwischen Wissenschaft und Gesellschaft in einem turbulenten Zeitalter des Konservatismus und der sexuellen Revolution untersucht und versucht, die Pseudobiologie vom sozialem Geschlecht zu beleuchten. Die Arbeit schließt mit der Wechselbeziehung zwischen Wissenschaft und Gesellschaft und zeigt, dass Money trotz seiner bahnbrechenden Ideen an konservative Genderbegriffen gebunden war, die u.a. zu der von ihm wahrgenommenen Außenseiterrolle führten. Money's Erbe an die queere Community und Politik zeigt sich in erster Linie im sine qua non Diskurs durch das Verständnis von Gender in der Wissenschaft und durch die Bedeutung von queeren Körpern und Stimmen in der übergeordneten Diskussion über Gender.

SCHLÜSSELWÖRTER

John Money, Queer Politics, soziales Geschlecht, Gender, Pseudobiologie, Sexualwissenschaft

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INTRODUCTION

“What is gender?” has been a central question to many philosophical, scientific, and sociological discussions that stem through history. Using ever changing terminology and vernaculars, and based in context and culture, the differences between man and woman have been stressed in different contexts. However, with the medical revolution in the 19th century, new ideas and research were available due to innovative technologies in medicine and science. The advancement of the twentieth century brought forward disciplines that flourished and revolutionized societal perceptions of gender, while maintaining and strengthening social behavioral constructs.¹ Sexology, the study of human sex and sexuality, was born during this era; prior, sex and sexuality were taboo, perpetuating Victorian values of chastity and concepts of respectability, while underlining sexual differences.² However, following the First World War, this field presented new challenging concepts of “normal” sexual behavior, and spiked the interest of researchers, and by the end of the Second World War, opportunities were many, and sexology was experiencing a renaissance. A budding sexologist from New Zealand, John Money moved to the United States to pursue his PhD in this domain. It was only a matter of time before he established himself as a vanguard in the discipline.

As a psychologist and a sexologist, Money aimed to revolutionize the way society thought of gender, an idea inherent to the structural aspect of society and central to his theories and clinical work. Money’s work, up to the 1980s, was perceived as revolutionary, and established a new discourse in terms of gender and behavior. He was a pioneer in sexual psychology, bending the rules of gender and the conservative concepts surrounding sexual development, gender identity, and sexual orientation. However, with the notorious case of David Reimer, Money lost all credibility, and was publicly bashed for his errors. The case completely altered his reputation, from ground-breaking psychologist in the field of gender behavior and sexual fluidity, to a pariah. Yet, his prior work, mainly his theories on sexuality and sexual anomalies,

¹ Anne Fausto-Sterling, *Sexing the Body: Gender Politics and the Construction of Sexuality* (New York: Basic Books, 2000), 1-45.

² Cathy Holding, "A Brief History of Sexology," *The Independent*, September 14, 2008, <http://www.independent.co.uk/life-style/love-sex/consummation/what-the-doctor-saw-a-brief-history-of-sexology-931188.html>.

helped him establish the concept of gender, arguing that gender is a consequence of nurture rather than nature. While many of his neologisms are central to the queer community today, and part of both academic and queer discourse, the David Reimer case brought criticisms from both the conservative voices and proponents of Intersex rights.³

The historical and political relevance of his theories, successes and errors, is important to understand the context of queer politics today and the future of gender as a concept on an international level. Without aiming to extrapolate, Money is seen as both an innovator and a culprit, and his theories are controversial in the light of the Reimer case. With aspects of queer politics centering the discussion on gender as a social construct, as seen in Judith Butler's *Undoing Gender*, and the push towards deconstructing this concept, Money's impact needs to be understood, especially on the future of the gender discourse, through Queer Theory, Intersex narratives, and Trans politics.⁴

This overview of John Money's rise and fall is necessary to frame the question at the center of this thesis:

How did John Money impact Queer Politics?

Money was instrumental in setting some terminology used within Queer Theory, communities, and politics. His neologisms were many and revolutionary, he coined words that are still used today commonly in different domains, such as "lovemap" and "paraphilia," as well as many that fell out of usage, "troopbonding" for example, however only one neologism is central to this thesis: "gender."⁵ The two major events in Money's career revolve around the concept of "gender," but clash with each other and complicate his legacy's narrative. To understand the future of gender

³ It necessary to clarify the difference between lower-case intersex and upper-case Intersex, as well as lower-case transsexual or transgender and upper-case Trans. First, lower-case intersex is used as an adjective to describe individuals who present as intersex. However, upper-case Intersex is used here in a political sense to encompass all different identities under the Intersex umbrella; it is used especially in relation to political communities, for they are diverse. Second, transsexual qualifies an individual who has undergone sex reassignment, while transgender qualifies an individual who simply identifies as trans. However, upper-case Trans represents all the different identities and ideologies of the Trans movement, and is used in an ideological and political sense to encompass members of the community.

⁴ Judith Butler, *Undoing gender* (New York, NY: Routledge, 2009), 63-73.

⁵ Terry Goldie, *The Man Who Invented Gender: Engaging the Ideas of John Money* (Vancouver: University of British Columbia Press, 2014), 82, 144.

and queerness on the international level and predict the evolution of queer theory in the domain of political theory, and international relations theory, one must understand the historical significance of figures that influenced it. How did Money affect the historical evolution of gender paradigms? Does he play the role of a catalyst in the development of some aspects of queer theory? Does he factor in the dynamics of Trans and Intersex politics today? This thesis, also, aims to answer these sub-questions that fit under the central one mentioned before.

The framework of this thesis brings focus to the historical and the political aspects of gender. The disciplines used for this thesis are History and Political Science/International Relations. A historiographical analytical point of view is used in this thesis to understand the evolution of gender as a concept through the second half of the twentieth century, and to understand John Money's impact, both positive and negative. The historical aspect entails three different facets throughout this thesis: first, in the history of ideas, where gender will be looked at historically and historiographically; second, through the historical narrative of John Money, and his personal works; and third, through the analysis of queer political movements' developments in light of Money's work and the Reimer case. The history of Money's career is part of the larger history of queerness and the Lesbian Gay Bisexual Trans (LGBT) community, and is a pivotal point in the history of the concept of gender. While it is a step in the evolution of medicine, psychology and sexology, it is also a nexus weaving science and society, clarifying connections between these two domains. John Money's neologisms and ideas, as stated, were ahead of their time and aimed to investigate gender and sexual "anomalies," which by consequence influenced societal perceptions and conceptions of intersex and Trans individuals.⁶

As to political science, gender as a concept goes beyond the binary of woman versus man, a normative aspect of society. Gender is fundamentally political. It has been instrumental in setting human behavior. Structural Feminism theorists, such as Laura Sjoberg, argue that gender, and gender differences, are inherent in the structure of any organization, including society, and dictate the behavior and actions of their

⁶ Ibid.

units.⁷ Queer genders have as much political relevance as the binary genders of “man” and “woman,” and the narratives of intersex and transgender people are intrinsically political. The simple existence of non-binary identities challenges the status quo, a status quo that permeates to international relations. Queer theory has aimed to reach this international level, to affect the gender binary at a structural level, and transcend borders, affecting a queer political discourse transnationally. This thesis will look in particular at the political mobilization of Intersex and Trans communities in reaction to Money, at the political discourse of queer theory in relation to the psychological terminology coined by Money, and the theoretical implications of his theories on gender politics. These are pervading discourses that transcend state boundaries, which introduce an international, rather transnational political aspect. While it would be deemed as extrapolation to assume that Money played a role in the international queer rhetoric, it is still important to understand his effect in shaping queer theory, if any, to be able to, ultimately, formulate a prescriptive or predictive narrative of queer politics internationally. Nevertheless, one must constantly identify problems and issues to analyze and trace back their introduction into the complex processes of society; for, as Joan Scott argues in “Gender as a Useful Category”, “we must ask more often how things happened in order to find out why they happen.”⁸ As mentioned earlier, gender has an inherent power on relationships in all their forms, whether personal, or institutional, and one needs to understand the perpetuation of gender’s effects through these structures.⁹ The political aspect of this thesis resonates through structures of power that dominate the conversation on sexuality, gender, and queer bodies, and is clearly explained by French anthropologist Maurice Godelier in his essay “The Origins of Male Domination:” “It is not sexuality which haunts society, but society haunts the body’s sexuality. Sex-related differences between bodies are continually summoned as testimony to social relations and phenomena that have nothing to do with sexuality.”¹⁰

⁷ Laura Sjoberg, “Gender, Structure, and War: What Waltz Couldn't See,” *International Theory* 4, no. 01 (2012): 4, doi:10.1017/s175297191100025x.

⁸ Joan W. Scott, “Gender: A Useful Category of Historical Analysis,” *The American Historical Review* 91, no. 5 (December 1986): 1070, doi:10.2307/1864376.

⁹ Ibid, 72.

¹⁰ Maurice Godelier, “The origins of male domination,” *New Left Review* 127 (1981): 17, 127.

Why is it important to look at John Money's work and why should one understand his legacy? As mentioned before queer movements are mobilizing today, across the United States, Europe, and other states. Queer rights, Gay rights, and Trans rights are at the center of governmental policies and international discourse. To understand the progress of queer politics today, to aim at extrapolation, prediction or prescription, one must understand the history of the movement and the factors that shaped its initial form. During the sexual revolution of the 1960s to the 1980s, queer politics saw their rise targeting different subjects such as the AIDS epidemic, gay rights, and gay visibility. Among those events, John Money's clinical work was also instrumental in shaping a theoretical and political discourse of queer politics. Queer theory emerged in the 1990s. It finds its name and origins in the word "queer" – from the Germanic root *quer* meaning oblique or perverse. However, Throughout the 20th century mainly in the 1920s, the meaning of the word queer evolved from weird and eccentric to strange and ill, becoming a pejorative reference to homosexuals as their behavior was observed as unnatural. By the 1950s this word became the equivalent of "dyke" or "faggot". Queer theory emerged as a movement to reclaim the word and establish identities of individuals under its umbrella as independent and liberated from the mainstream, criticizing the hegemony of white heteronormative discourse over their narratives. Queer theory and politics focus on dismantling the domination of the white-cis-hetero-patriarchal society that renders queer identities and bodies invisible.¹¹ Therefore, this field extends from the personal level to the international level, and attempts to expose the structural political dynamics of these constructs and the way they control performatives and narratives throughout society.¹²

Queerness as a concept has seeped into society, and as any movement, it is exhibited in three different aspects: theory, activism, and academia. Queer activism is political, and involves lobbying governments for rights, justice, and visibility among governments. International queer theory, while disorganized as a field, exists and aims to expand queer theory to international relations, and pushes for the

¹¹ Cis- and cis-gender are a prefix and a term respectively that oppose the terms Trans, transsexual, and transgender. They are used to describe individuals who identify with the gender they were assigned at birth, as opposed to Trans people.

¹² Annamarie Jagose, *Queer Theory: An Introduction* (New York: New York Univ. Press, 2010), 1-15.

deconstruction of the gender binary on the international level.¹³ One should not undermine the political relevance of queerness today, considering the discourse happening around the LGBT movement and rights. For the sake of this thesis, Queer Politics will concentrate on two major queer theorists: Anne Fausto-Sterling and Judith Butler in light of the thesis's discussion of gender and biology, and will examine the mobilization of different queer communities in light of Money's work and theories and the Reimer case.

Consequently, the thesis aims to retrace a historical narrative of queerness and gender starting from the 1950s and intends to link medicine to sociology and politics through a historiographical lens. Therefore, to be able to answer the question asked, the following structure shapes this dissertation. Three main chapters streamline the discussion around three themes, reflected in the title: chapter I "Queer Pioneer," chapter II "Queer Pariah," and chapter III "Queer Politics." Chapter I initiates with the central aspect of this thesis: Money's neologism of "gender" and his Gender Neutrality Theorem. Divided into two parts, the chapter first introduces Money and his interest in gender as a field of study; then, the chapter looks over the history of gender as a concept, its interaction with the concept of "sex," focusing especially on the domain of sexology's development in the post-Second World War period. Thus, it clarifies the climate of gender in science before Money's entry to the field, and what influenced him to pursue a career in sexology. The history of gender as an idea cannot be framed within one chapter or even one book, hence the need to limit the scope of the historiography to the second part of the twentieth century and look at the works of Money's predecessors. Then, the second part of this chapter, discusses Money's clinical and theoretical work on gender, from his research on patients with Congenital Adrenal-Hyperplasia (CAH) and intersex people, to his support of sex reassignment surgeries at Johns Hopkins, explaining Money's pioneering and transformative role in this field.¹⁴

¹³ Cynthia Weber, "Why Is There No Queer International Theory?" *European Journal of International Relations* 21, no. 1 (March 2014): 42, doi:10.1177/1354066114524236.

¹⁴ John Money and Richard Green, *Transsexualism and sex reassignment* (Baltimore: Johns Hopkins Press, 1969).

Chapter II examines Money's fall in light of the David Reimer case. This section redraws Money's defamation and the following impact. Divided into two sections, the chapter recounts first the events that led to John Colapinto's report on the "John-Joan" case, as it was known prior to Reimer going public. It discusses the narrative Colapinto uses and delves into his description of Money and his work. Then, the chapter moves onto the impact of the Reimer case on the Intersex and Trans communities, and analyzes the modifications of these communities' perceptions. The chapter's goal is to answer how the Reimer case impacted Money's pioneering work on gender and sex reassignment surgeries.

Then, chapter III incorporates aspects of the previous two discussions to look into queer politics, and Money's legacy in queer theory and in the conversation on science and society. Firstly, the chapter delves into Money's neologisms and engages in a discussion over the interaction between medicine, sexology and feminism, and attempts to recognize Money's work in today's discourse. Secondly, the chapter debates the pseudo-biology of gender established by years of societal influence on medicine and research, and sheds light on the way Money viewed the nature versus nurture discourse in terms of gender role and sexual identity. The thesis concludes with a discussion over the limitations of the research, before synthesizing the previous chapters, and summarizing the role of Money as both a pioneer and a pariah. Then, on a final note, the thesis debates whether Money did indeed play a role in forming queer political discourse through an overall analysis of the interplay between Money's clinical and theoretical work and societal perceptions.

CHAPTER I – QUEER PIONEER

HISTORY OF GENDER AS A CONCEPT

In 1955, John Money published a deciding paper that shaped the future of his work, and the discussion around sexuality and sexual identity for the rest of his career. Titled “Imprinting and the Establishment of Gender Role,” he discussed the necessity to assign a gender on intersex children as soon as possible, with little delay.¹⁵ Following this publication, Money argued that gender and sex are two different concepts, the latter being purely biological, determined by an assessment of chromosomes, hormones, and morphology, while gender, he stated, is a learned behavior influenced by both hormones and biology, and the environment. Money separated nurture from nature in the discussion over gender identity, based on his research and evidence from the Congenital Adrenal Hyperplasia (CAH) observations, all while coining the new terminology of “gender.” It was the first time in the domains of endocrinology and psychology that clinicians took the lead into assigning the “best” sex for a child rather than the “true” sex or taking into consideration parental choice. Physicians took the lead by choosing a sex for the intersex child as soon as possible. Money claimed that gender identity is separated from sex, and thus was not purely genetic; he insisted that gender role is established during the first stages of childhood:

Theoretically, our findings indicate that neither a purely hereditary nor a purely environmental doctrine of the origins of gender and orientation—of psychologic sex—is adequate. On the one hand, it is evident that gender role and orientation is not determined in some automatic, innate, or instinctive fashion by physical, bodily agents, like chromosomes, gonadal structures, or hormones. On the other hand, it is also evident that the sex of assignment and rearing does not automatically and mechanistically determine the gender role and orientation [...] Rather, it appears that a person’s gender role and orientation becomes established, beginning at a very early age, as that person becomes acquainted with and deciphers a continuous multiplicity of signs that point in the direction of his being a boy, or her being a girl. These signs range all the way from nouns and pronouns differentiating gender to modes of behavior, hair cut, dress,

¹⁵ John Money, Joan G. Hampson, and John L. Hampson, "Imprinting and the Establishment of Gender Role," *Archives of Neurology and Psychiatry* 77, no. 3 (1957): 334, doi:10.1001/archneurpsyc.1957.02330330119019.

and personal adornment that are differentiated according to sex. The most emphatic sign of all is, of course, the appearance of the genital organs.¹⁶

Money revolutionized the concept of gender. Joan Scott, in her essay “Gender: A Useful Category of Historical Analysis,” argues that “gender” as a concept gained great relevance in the middle of a tumultuous epistemological shift from scientific to literary discourse in the social sciences.¹⁷ In fact, Money aimed to bridge a gap between medicine and research from one side, and society and norms from another. His study of intersex people led him to claim that they were “normal” in behavior and should be accepted by society, regardless of their biological differences. Yet, as stated earlier, there was still a need to “fix their sex” so they fit within the boundaries of society.¹⁸ Money’s work on intersex people and hermaphroditism started with his doctoral dissertation, titled “Hermaphroditism: An Inquiry into the Nature of a Human Paradox.”¹⁹ During his work on 258 cases of intersex persons, Money noticed the lack of psychological and psychosocial data, which led him to deepen his research by holding extensive interviews with ten individuals to expand on this lack. It was since his PhD that Money was looking over the major gaps of studies on intersex people and how he could expand on the literature. It was within the conclusion of his paper that Money first claimed that the sex assigned to intersex people was the most acceptable, reiterating the same statement five years later in 1957 in “Imprinting and the Establishment of Gender Role:”

The sex of assignment and rearing is consistently and conspicuously a more reliable prognosticator of a hermaphrodite’s gender role and orientation than the chromosomal sex, the gonadal sex, the hormonal sex, the accessory internal reproductive morphology, or the ambiguous morphology of the external genitalia.²⁰

¹⁶ Ibid, 334-335.

¹⁷ Scott, “Gender: A Useful Category of Historical Analysis,” 1070.

¹⁸ John Money, Joan G. Hampson, and John L. Hampson, “An Examination of Some Basic Sexual Concepts: The Evidence of Human Hermaphroditism,” *Bulletin of the Johns Hopkins Hospital* 97, no. 4 (1955): 308.

¹⁹ Goldie, *The Man Who Invented Gender*, 41.

²⁰ Money, Hampson, and Hampson, “Imprinting and the Establishment of Gender Role,” 333.

While Money's neologism of gender only revolutionized the definition and the concept, it was not the first time the word gender was used in the context of human sex, nor was it a unique moment of interest in genitalia and sexual behavior. The Oxford English Dictionary defines gender as different grammatical classes, which most commonly are masculine, feminine, or neuter, depending on the language.²¹ It is a classification mechanism that differentiates the inflections, declensions, and conjugation of nouns, verbs and adjectives in syntax and grammar. The Oxford Dictionary expands on the history of the word gender in the grammatical sense, tracing back its origins to around the mid-fourteenth century, where gender was used in its middle English form *gendre*. Etymologically, the word derives from Middle French *gendre* – meaning “kind” or “sort” – whose origins stem from the Latin *gener* or *genus*, which means “kind” in both the grammatical and the organizational sense. Historically, this term has been used in this context, without referring to sexual differences. The masculine-feminine dichotomy in some languages does not equate the dimorphism between male and female, or men and women in society and philosophy. However, this grammatical use did engender and extend the meaning of this word to sex ultimately, and was thus used in a context where it was confounded with “sex.” This change in the meaning became more common in usage a couple centuries after its original conception. However, by the early twentieth century, a fissure between sex and gender arose: “gender,” euphemistically, was being used more often to define men – males, or women – females, while “sex” signified intercourse.²²

Scott re-traces the history of gender differences as a source of power throughout sociology, history, and anthropology, pinpointing the various arguments that some scholars had made on gender differences. While not explicitly using this terminology, gender has been central to years of political theorizing and political structures.²³ The discourse over sexual differences started as soon as the field of biology in the West in the early nineteenth century emerged. Human biology has been bound in

²¹ “Gender,” *Oxford English Dictionary*, 3rd ed, <http://www.oed.com/view/Entry/77468>.

²² Ibid.

²³ Scott, “Gender: A Useful Category of Historical Analysis,” 1072-74.

philosophical social discourses such as sexual, racial, and national politics.²⁴ George Mosse, in his book *Nationalism and Sexuality*, bases his historical analyses on the difference between genders, and how these were used to mobilize the population and separate the sexes completely according to gendered differences.²⁵ By consequence, one can deduct from these examples the importance of gender to any historical context; as a structural construct to any societal or political institutions, due to the hegemony of the patriarchy, gender has been inherent to any concept in modern times.²⁶ Hence, why researchers, whether in social studies or the psychological-medical field, were interested in finding the source of gender: “what makes men and women who they are, and what are their differences?” Historically, the convolution of sex and gender induced the belief that gender was inherently biological. However, as seen with the evolution of the terminology, by the twentieth century gender was no longer seen as purely biological and intrinsic to the human, rather it involved social and cultural cues. Gender was thus viewed as a grouping of behavioral characteristics that were based on biological sexual differences, but heavily affected and influenced by the social environment. This change came by through scientists and sociologists seeking to understand the origins of gender and the factors that affected it. John Money laid the groundwork that connected the medical world to feminist theories, by studying intersex people with Congenital Adrenal Hyperplasia.

It is this period in the concept’s evolution that is important to this thesis. Gender came to signify the properties belonging to male and female, which expanded to the social and cultural expectations and institutions imposed on the individuals of the different sexes. Masculinity and femininity were seen as intrinsic to male and female bodies respectively; it was believed that there is a direct link between social performance and genitals. Sex, as a word, implied either sexual intercourse and behavior or genitals.

Gender seems to have become a particularly useful word as studies of sex and sexuality have proliferated, for it offers a way of differentiating sexual practice

²⁴ Fausto-Sterling, *Sexing the Body*, 7-8.

²⁵ George Mosse, *Nationalism and Sexuality: Respectability and Abnormal Sexuality in Modern Europe* (New York: Howard Fertig, 1997).

²⁶ Sjöberg, “Gender, Structure, and War.”

from the social roles assigned to women and men. [...] the use of gender emphasizes an entire system of relationships that may include sex, but is not directly determined by sex nor directly determining of sexuality [...]²⁷

Nevertheless, the sociological aspect of gender and all it expressed, from cultural distinctions to behavior and traits, dominated the definition of gender, and slowly centered itself in the discussion over the psychology and the sociology of gender in medical, academic, and feminist circles. It is important to define gender for this dissertation, for it is the basis of the discussion on John Money and his impact on queer politics. Gender in the second half of the twentieth century shifted towards the cultural traits, which arose from psychologists and sociologists questioning the source of gender and the process of its acquisition. John Money was a pioneer in the redefinition and the repurposing of the concept of gender, and the coining of important compound words such as “gender role” and “gender identity” that are central to the discourse of feminist and queer theories of the sexual revolution period and after. However, while Money aimed to combine theory and clinical work, the medical field was drawing up the scientific research that inspired Money to undertake his own.

Prior to the Second World War, sexuality was a taboo, enshrined in social behaviors and rules that limited any form of sexual freedom or expression. The imposition of Victorian repression and the perpetuation of respectability limited the extensive study of sexuality to criminals and sexual deviants – homosexuality being one of these deviations of the time. Sexual freedom was shunned, and gender norms were imposed on all individuals, with chastity being central to family values.²⁸ Regardless of these social boundaries, the science of sex and sexuality experienced its first new theories in the late 19th century with two central figures: Henry Havelock

²⁷ Scott, “Gender: A Useful Category of Historical Analysis,” 1063-64.

²⁸ Mosse, *Nationalism and Sexuality*. Mosse discusses the link between respectability and medieval values, and the adoption of these concepts into nationalistic discourses throughout the 18th and 19th centuries in his book *Nationalism and Sexuality*. He argues that during these periods, there was a huge movement from the bourgeoisie to return to the values of the past, ones that were prevalent during medieval time that perpetuated chastity and family values. Throughout Nationalism’s evolution, these values were integrated into its discourse and became central to the formation of a national identity, where both men and women sublimated their sexual desires, for the nation and for the protection of the nuclear family respectively.

Ellis and Sigmund Freud.²⁹ While Ellis looked at psychological sources of sexual instinct and pushed for sexual liberation, writing six volumes titled *Studies in the Psychology of Sex*, Freud was theorizing that sexual desire was the intrinsic energy that drove humans to act, if not explicitly, through their subconsciousness.³⁰ Yet, it is important to underline that even with the progress that Ellis and Freud were able to establish in this sexually cold era, their theories were still heavily influenced by social norms and were structured according to the expectations of societal values of the time.³¹ For example, Freud, in 1905 in one of his essays argued that sexuality was the catalyst behind perversions and compulsions.³² With the medical and technological revolution in this period, researchers and scientists were interested in the origins of social phenomena, including sexual behavior. Anne Fausto-Sterling discusses this history in her book *Sexing the Body*, and notes how intersex people were viewed as anomalies socially, and had to abide by a strict gender performance. The evolution of human society brought the legalization of these strict behavioral and dress codes, forcing intersex individuals to choose one sex or the other.³³ This interest in intersexuality was further translated during the medical revolution.³⁴

It was only by the 1940s that sexology started, indeed, to closely observe the sexual behavior of the general populace, with Alfred Kinsey who revolutionized the concepts of human sexuality in general. Kinsey established, in association with the University of Indiana, the “Kinsey Institute for Research in Sex, Gender, and Reproduction” in 1947, to expand his team and research on the intricacies of human sexuality in both males and females. He published two independent reports, the first one on male sexual behavior in 1948, and the second on females in 1953. This discussion of Kinsey’s major works in sexology is necessary as it shaped and

²⁹ Peter Gay, *The Bourgeois Experience: Victoria to Freud* (New York/London: Oxford University Press/HarperCollins, 1984), 447.

³⁰ Holding, “A Brief History of Sexology.”

³¹ Ibid.

³² Sigmund Freud, *Three Essays on the Theory of Sexuality*. Translated by James Strachey (New York: Basic Books, 2007.)

³³ Two caricatural cartoons on the history of gender and sex, and the history of intersex people and society, taken from Fausto-Sterling’s book *Sexing the Body* are available in the appendix “Figures and Diagrams,” section “A. Figures,” under figures 1 and 2.

³⁴ For a detailed history of gender, intersexuality, and science, refer to Anne Fausto-Sterling’s book *Sexing the Body*.

modified many conceptions of the post- World War II era. As mentioned earlier, studies and conceptions of sex were changing slowly since the turn of the century, but with both world wars, the conversation was almost halted. With Kinsey's work on human sexuality, new opportunities were available, and the publication of his first report forced the general society to embrace his discoveries. One could argue that Kinsey's work normalized some aspects of sexuality, or at least initiated change, which was central to the sexual revolution of the 1960s during Money's prime.

Basing his studies on interviews with almost 6000 individuals for each book, Kinsey's concepts were deduced from statistical calculations. His questionnaires covered everything from sexual relations with either or both genders, to masturbation and sadism-masochism. Kinsey and his associates maintained the anonymity of the interviewees to ensure honesty in their results. Such a context permitted participants to divulge their behavior behind closed doors.³⁵ As such, once published, the reports were to affect public consciousness of sexuality, and allow sexual behaviors that were denigrated – such as homosexuality – to permeate every day societal values. Kinsey stated that sexual orientation is not black or white, heterosexual or homosexual. Contrary to the common belief of the century, Kinsey showed through his statistics that humans' sexuality is much more fluid.³⁶ Indeed, creating the Kinsey scale, he was able to classify different sexual behaviors, without enforcing only one of the two labels. The scale used a numbering system of 7 steps, ranging from 0 to 6, where each number was associated with a certain amount of sexual experience or behavior. 0 was associated with exclusive heterosexuality, 6 to exclusive homosexuality, and 3 to equal heterosexual and homosexual experiences, or bisexuality, with all the other numbers representing a gradient in between. Kinsey's scale was revolutionary within the homosexual communities and the general population. His work disclosed information that was previously taboo and never discussed, and his argument would reveal an unspoken truth about human behavior and ensue a discussion on issues that communities did not previously want to engage

³⁵ Julia A. Ericksen, "With Enough Cases, Why Do You Need Statistics? Revisiting Kinsey's Methodology," *Journal of Sex Research* 35, no. 2 (1998): 135, doi:10.1080/00224499809551926.

³⁶ Alfred Charles Kinsey, Wardell B. Pomeroy, and Clyde E. Martin, *Sexual Behavior in the Human Male* (Bloomington, IN: Indiana University Press, 1948), 638-647; Alfred Charles Kinsey, *Sexual Behavior in the Human Female* (Philadelphia: W.B. Saunders Company, 1953), 472.

in. In fact, his books were so revolutionary that they were translated into thirteen languages and sold almost a million copies.³⁷

Within the sexology sphere, new discussions and questions flourished as a consequence of the Kinsey reports. Psychologists, physicians, and endocrinologists were now even more interested in the sexual behavior of homosexual individuals, and were intrigued by the causes of this behavior. One must stress that despite Kinsey's work and the transformation of society in terms of sexuality, acceptance of homosexual behavior was not widespread, nor was it common. It was merely a change in society's desire to initiate a conversation on the subject. However, among these questions was the application of the scale on individuals that did not present either genders: intersex people, or as they were more commonly called during this period: hermaphrodites. Contemporary to Kinsey's initiation in the field of human sexuality, a pediatric endocrinology clinic at the Johns Hopkins Hospital was founded in 1935 to answer "questions of development and growth, pediatric diabetes, sex differentiation, metabolism and various hormonal and glandular conditions in children and young adults."³⁸ This field as well was new, and the first textbook was published in 1950 by Dr. Lawson Wilkins.³⁹ Among the variety of cases that the clinic saw, with a broad yet limited scope of interest, a three and a half year old boy presented symptoms of precocious sexual development and advanced growth among others. Following his admission in 1940, the patient died of hyperplasia of the adrenal cortex.⁴⁰ An extensive autopsy of the child showed that his androgen levels were as high as those of an adult male,⁴¹ which led Wilkins and his team to draw

³⁷ Janice M. Irvine, *Disorders of Desire: Sexuality and Gender in Modern American Sexology* (Philadelphia, PA: Temple University Press, 2005), 38-40; Fausto-Sterling, *Sexing the Body*, 9-10.

³⁸ Sandra Eder, "The Volatility of Sex: Intersexuality, Gender and Clinical Practice in the 1950s," *Gender & History* 22, no. 3 (October 22, 2010): 694, doi:10.1111/j.1468-0424.2010.01615.x.

³⁹ Ibid, 705.

⁴⁰ Hyperplasia of the adrenal cortex, also called Congenital Adrenal Hyperplasia, is a genetic disease that affects the biochemical procedures of sex steroids, or androgens, in the adrenal glands. Individuals with this disease can exhibit excessive secretion of androgens which can affect the primary and secondary sexual development in infants, children and teenagers. Male infants exhibit a precocious sexual development and high levels of androgens, while females present ambiguous genitalia and symptoms of pseudo-hermaphroditism. For more information, refer to David A. Warrell, Timothy M. Cox, and John D. Firth, eds. *Oxford Textbook of Medicine*, 4th ed, 3 vols (Oxford: Oxford University Press, 2005.)

⁴¹ Androgens are hormones that play a role in sexual differentiation during fetal development, and secondary sex characteristics development during puberty. I.e. testosterone is an androgen.

comparisons between this case and ones of female infants presenting pseudo-hermaphroditism, and consequently to lay the foundation for his study of Congenital Adrenal Hyperplasia (CAH).⁴² At this point in time, it is clear that there was a scientific transposition of the societal obsession with intersex people onto scientific research, which remains, even today, as a cornerstone of the study of “nonintersexuals” sexuality and biology.⁴³ From the late nineteenth century, the medical field was obsessed with hermaphroditism, separating intersex people between true hermaphrodites and pseudo-hermaphrodites, studying their biology to understand the intricacies of gender in the rest of humans.

Pediatric endocrinology permitted physicians to look at a specific subset of children with rare and unique diseases, and expanded the domain’s reach. Wilkins’s conclusion on CAH provided an important question on the sexual identity of infants with aspects of pseudo-hermaphroditism or true hermaphroditism. This deepened the specificity of Wilkins’s work, and necessitated extensive research and work on CAH patients. As mentioned earlier, female infants with CAH were pseudo-hermaphrodites: they exhibited ambiguous genitalia. Methods of sex identification of the era relied on five main aspects: external morphology, internal morphology, gonadal sex, hormonal sex, and chromosomal sex.⁴⁴ However, with the study of intersex people, complications in the denomination of an infant’s sex arose, and CAH patients were prime examples. The case of Andy/Ann in Wilkins’s clinic showed the difficulties that physicians faced. From society’s perspective, there were only two genders, male and female, and these expectations were translated as well in medicine; treatments and diagnoses were gendered. Hermaphrodites had to be raised within these norms and expectations. Andy presented female chromosomal sex, and female pseudo-hermaphroditism affected by CAH, yet Andy’s parents chose a masculine name and were raising him male. Ambiguous genitalia were quite

⁴² Eder, “The Volatility of Sex,” 695.

⁴³ Fausto-Sterling, *Sexing the Body*, 36-37.

⁴⁴ Males and females respectively: external genital morphology is the presence of either the set of phallus and scrotum versus labia majora, minora, vaginal entry and clitoris. Internal sex is the presence of prostate and male urinary tract versus uterus and ovaries. Chromosomal sex is the presence of one X and one Y chromosomes versus two X chromosomes. Gonadal sex is the presence of testes versus ovaries. Hormonal sex is the discrepancies in sexual hormone secretions: higher levels of testosterone versus higher levels of estrogen and progesterone. For more details on human biology, refer to the appendix “Sexual Differentiation in Humans.”

common in CAH cases, but ultimately one of the two genders were chosen. The parent's choice permitted Wilkins and his team to enact a therapy procedure that was gendered and fit Andy's future as a male. One must remember that CAH diagnosis was not made at birth, rather once the patient was admitted in the pediatric endocrinology clinic. Henceforth, even if the baby had CAH, a sex was assigned at birth, which would only be contended if taken to an endocrinologist.⁴⁵

An important factor affected the physicians' work and research during the 1950s: steroid cortisone. This discovery contributed to both the diagnostic and the treatment of CAH, as it was used to halt the development of male secondary sex characteristics by reducing the amount of steroids secreted by the hyperactive adrenal glands. This new component of therapy gave parents and physicians the option to change their child's sex for a more apt "true" sex. Nevertheless, in most cases, parents still abided by the sex they chose for the child, and disregarded the physicians' commentary, which created a tradition of *ad hoc* treatment.⁴⁶ An example of this was the case of Charles. Charles was diagnosed as a female pseudo-hermaphrodite with CAH, and his internal examination showed female reproductive organs. Yet, the mother was still inclined towards the masculine gender for her child, which led to the removal of the fallopian tubes, the ovaries, and the uterus.⁴⁷ The pseudo-hermaphroditism of CAH females and the virilizing aspects of CAH in both affected males and females were confusing physicians in terms of sex and sexuality, due to the ambiguity that these symptoms created in a gendered environment. Psychological assessments of patients and assistance to parents were necessary in cases of hermaphroditism, which led Wilkins to hire John Money in 1951, because of his doctoral thesis on hermaphroditism and his subsequent research.⁴⁸ Money perceived Wilkins as a pioneer in pediatric endocrinology, and his work would complement his research through his concentration on clinical psycho-endocrinology.⁴⁹ He began studying the

⁴⁵ Eder, "The Volatility of Sex," 696.

⁴⁶ Ibid, 695-98.

⁴⁷ Sandra Eder, "From 'Following the Push of Nature' to 'Restoring One's Proper Sex' – Cortisone and Sex at Johns Hopkins's Pediatric Endocrinology Clinic," *Endeavour* 36, no. 2 (June 2012): 72, doi:10.1016/j.endeavour.2011.11.003.

⁴⁸ Goldie, *The Man Who Invented Gender*, 35.

⁴⁹ Ibid, 35-36; Clarence Eugene Walker, *The History of Clinical Psychology in Autobiography* (Pacific Grove, CA: Brooks/Cole Pub. Co, 1991), 249.

cases of CAH, and advising parents on potential alternatives for their children. The medical field existed within the gender binary, where the options for parents to either continue raising their children according to the gender they chose, or work with the clinicians and the psychologists to re-adapt to the “true” sex of their children. It was impossible for physicians to imagine an individual that did not abide by either sex of society. The normal course of therapy was to find the child’s “true” sex and move forward from there. Chromosomal studies and genital examinations were common to determine the “true” sex, and with cases of hermaphroditism difficulties became obvious.

GENDER NEUTRALITY THEOREM AND MONEY'S WORK

Money was not the first one who showed interest in studying the psychology of intersex people, but there was simply not enough amount of literature covering the subject. Hugh Hampton Young, a urologist at Johns Hopkins, was the major source that Money relied on during his PhD research. Young, in 1937, published a text titled “Genital Abnormalities, Hermaphroditism and Related Adrenal Diseases,” which tackled this subject. He noticed the comfort the patients had with their assigned sex and the “easiness” of their behavior. Moreover, Money was influenced by another sexologist, Albert Ellis who claimed that chromosomal sex was not the ultimate determinant of a hermaphrodite’s identity, and that biological determinism could not be applied on hermaphrodites: Ellis found little correlation between biological factors and the performance of an adult intersex person.⁵⁰ While Ellis and Young agreed with Money’s innovative claims in 1955, their subjects were all adult, but on the other hand Money highlighted the ambiguity of sex in intersex new-borns. He also expanded the literature on intersex psychology and filled a gap in the medical discourse on Intersex identity.⁵¹ While these researchers claimed the “normalcy” of intersex people, the societal narrative on their expectations were what limited the expansion of gender as a concept beyond the binary of male versus female. Societal discourse expected the hermaphrodite’s sexual biology to be regularized according to the gender norms of the time. Relating to Wilkin’s research discussed in the previous section, medicine in general abided by these norms, went beyond imposing gender performances to the point of modifying morphology to avoid genital ambiguity.⁵²

After observing CAH patients, Money was able to formulate the theory of gender neutrality. It aimed to demystify some aspects of gender to society: he separated nature from nurture and claimed that gender while being affected by genetics and development, it is also under the effect of societal factors and the environment.⁵³ Physicians of that time were believers of the gender binary and aimed to maintain an

⁵⁰ Goldie, *The Man Who Invented Gender*, 42.

⁵¹ Ibid, 44.

⁵² The relationship between Intersex and society shows medicine and law’s confusion towards their ambiguity. Intersex people had to always be categorized in the binary of male-female, which was presumed as the norm and nature. The fear of intersex ambiguity has always been present in society, hence the imposition of gender despite Money’s argument of normalcy.

⁵³ View appendix “Figures and Diagrams,” section “B. Diagrams,” diagram 1.

unambiguous sex for their patients, and their future heterosexuality. “Genitals had to match sexual desire, and sexual desire had to be directed at the ‘opposite sex.’ Surgery to establish hermaphrodites within the heterosexual matrix had already become an acceptable procedure at the beginning of the twentieth century.”⁵⁴ These issues did not arise with adult hermaphrodites; indeed, their desired sexual identification was already established, and any surgical procedures were not the decision of the physician or the patient’s parents. The individual in question had full agency over their identity and desires. On the other hand, with infants, the lack of agency complicated the decision for parents and physicians, and there was a tendency to directly choose a sex for intersex new-borns. The physicians did not intervene in the decision-making process of parents, further than informing them of the situation of their children and the reality of their internal and chromosomal sex. One could observe two biological female pseudo-hermaphrodite children playing with each other, where one was performing according to female societal expectations, and the other exhibited normative male behavior, depending on the choices the parents and the respective physicians made – an observation later on made by John Money.⁵⁵ It was this work on CAH pseudo-hermaphrodites that Money was able to connect the dots between gender and nurture.

Money laid the foundations of his Gender Neutrality theory, which extrapolated data observed among female pseudo-hermaphrodites suffering from CAH, to the general population. The theory argues that infant brains are malleable up to twenty months after birth, which offers a window of opportunity to form whichever gender identity. This plasticity ends after two years as societal norms would have already started to affect the child, and to be engrained in his psyche. It offered hope and encouraged many doctors to perform sex reassignment surgeries. Intersexuality was thus used as a proof for gender malleability. For Money, gender and gender identity – the first time he used this word was in his 1955 paper – developed as a consequence of social education during childhood, and thus it is malleable and affected by particular social cues and behavioral limits, in the context of the gender

⁵⁴ Eder, “The Volatility of Sex,” 693.

⁵⁵ Ibid, 699.

binary.⁵⁶ However, he argues that the plasticity window of gender spans from birth until, at the latest, twenty months. After this period, gender sets in and is fixed. This concept was revolutionary as it was a catalyst for many gender reassignments of intersex children, based on what best the scenario is. The easier route was vaginoplasty, as phalloplasty during the time was quite rudimentary. Through the years, Money kept developing his Gender Neutrality theory, which led to his gender-identity/role concept (G-I/R) and his gendermap.⁵⁷ Money explained in 1973, in his article “Gender Role, Gender Identity, Core Gender Identity: Usage and Definition of Terms,” how he changed the meaning of the word “gender,” and his coining of the terms “gender identity” and “gender role.” Following his studies on intersexuality, he believed that the term “sex” was too strained etymologically, hence the need for a new concept. “Sex,” at the time, covered different fields: civil, legal status, genetic, morphologic, genital, and gonadal. Money wanted a word that separated the morphology from the non-erotic and non-genital sexual roles, that are prescribed historically and socially – i.e. gender roles and performances in the binary. He combined the two new terms, “gender role” and “gender identity,” as for him they were two sides of the same coin.⁵⁸ This led to his 1985 concept of G-I/R, which he discussed in his paper “Gender: History Theory and Usage of the Term in Sexology and Its Relationship to Nature/Nurture.” He argued that gender identity and gender role should not be separated from each other in sense and usage. G-I/R is neither a product of pure nature or nurture, but a combination of both including a critical period. With this new concept, Money was aiming for a paradigm shift in sexology and social sciences, to adopt it and implement it in new debates over gender. His concept of G-I/R, as explained in this paper, is connected to his gendermap which he introduced in 1982, in his book with Anke Ehrhardt, *Man & Woman, Boy & Girl*. The gendermap is a diagram that explains the development of gender, and clarifies

⁵⁶ John Money, “Gender Role, Gender Identity, Core Gender Identity: Usage and Definition of Terms,” *Journal of the American Academy of Psychoanalysis* 1, no. 4 (December 1973): 397–402, <https://search.proquest.com/docview/1924018089?pq-origsite=gscholar>.

⁵⁷ John Money, “Gender: History, Theory and Usage of the Term in Sexology and Its Relationship to Nature/Nurture,” *Journal of Sex & Marital Therapy* 11, no. 2 (June 1985): 71–79, doi:10.1080/00926238508406072; John Money, *Gendermaps: Social Constructionism, Feminism, and Sexosophical History* (New York: Continuum, 1995).

⁵⁸ Money, “Gender: History, Theory and Usage of the Term,” 71-79.

the different factors that come into play in the formation of G-I/R. A constant project through his career, the gendermap kept becoming more and more precise, with the most extensive version published in 1995, in his book *Gendermaps: Social Constructionism, Feminism, and Sexosophical History*.⁵⁹ One can argue, as Nikki Sullivan argues in the book she co-authored, *Fuckology: Critical Essays on John Money's Diagnostic Concepts*, that Money viewed gender as performative – based on Judith Butler's concept of gender performativity. Sullivan argues that gender is indeed a set of actions that are repeated through the lifetime of an individual, to identify oneself and interact with others, which consequently is constitutive of one's identity. Therefore, these actions are repeated continuously, and the repetition naturalizes them, thus they become embedded in one's reality and one's expression.⁶⁰ Contrary to Butler's concept of performativity, which will be touched upon in Chapter 2, Money did not believe that the performativity of gender induces a power structure, where gender defines one's identity, and becomes an inherent aspect of reality. Contrarily, he believed that identity makes gender, and is simply an expression of identity. Moreover, Money's gender is embedded in the binary of male versus female. Throughout his works, he claims that gender develops as either male or female and adapts to societal expectations of gender. He states that women are supposed to have a tendency for domestic work and fine appearances, while men will develop rugged, strong, and macho behaviors. For his revolutionary gender neutrality theorem, Money was prey to tensions “between mainstream conservatism and new norms of human sexuality.”⁶¹

From his work on CAH patients, Money expanded his interest onto all sexual anomalies. By 1968, he published *Sex Errors of the Body* in which he recollected all the possible cases of sexual anomalies in humans.⁶² His interest expanded from the psychology of hermaphrodites and the treatment of ambiguous sex and gender, onto understanding the origins of ambiguity and the sources of any sexual discrepancies.

⁵⁹ View appendix “Figures and Diagrams section “B. Diagrams,” diagram 2.

⁶⁰ Lisa Downing, Iain Morland, and Nikki Sullivan, *Fuckology: Critical Essays on John Money's Diagnostic Concepts* (Chicago: University of Chicago Press, 2015), 19-40; Judith Butler, *Gender Trouble: Feminism and the Subversion of Identity*, (New York: Routledge, 1999).

⁶¹ Downing, Morland, and Sullivan, *Fuckology*, 70.

⁶² John Money, *Sex Errors of the Body: Dilemmas, Education, Counseling* (Baltimore: Johns Hopkins Press, 1968), xiii-xv.

Money was trying to fill another gap in the medical literature, a portfolio of all diagnostics when it comes to sexual endocrinology and medical sexology. Using a similar approach to sex determination procedures of the time, he divided his book according to the different observations: starting with sex chromosomal anomalies, he covered gonadal, fetal, internal organ, and external organ anomalies. Within the latter section, he expanded on the different forms of hermaphroditism: female, male, and true. He also tackled the implications of pituitary anomalies on the hormonal levels of the body.⁶³ It is in his ninth chapter, “Anomalies of Assignment and Rearing,” where Money expanded on gender role and gender assignment. He began his chapter restating his famous theory, that gender is learned during the early years of infancy when the child is subject to environmental stimuli. He insists on the easiness of sex announcement: in case of abnormal sex organs, the parents might assign the wrong sex for their child, but in scenarios as such, a simple discovery of the initial error is necessary, even after a few weeks, which leads to a simple re-announcement of a child’s sex. After which, the parents continue to raise their child according to the gender norms of this new sex. Money argues that children were still not aware of their surroundings, or the gender differences between boys and girls, that this change would not affect their psyche and their future performances.⁶⁴ This book brought in another lack in the literature and the domain of sexology: the 1940s and the 1950s were booming decades for medical and social sexology, yet a proper understanding of the different sexual anomalies and the sexual diversity on all levels was clearly missing. Money compiled these different aspects and exceptions of human sexuality, and provided a tome that was necessary for the period.

In his future work, Money contributed majorly to sex reassignment surgeries and the development of medical procedures for Trans individuals. He was instrumental in the success of the first complete sex reassignment procedure at Johns Hopkins in 1965, the creation of a protocol for these surgeries, and the establishment of the Gender Identity Clinic for Transsexualism, one of the only institutions to offer these

⁶³ Ibid; The anterior pituitary secretes gonadotropin, follicle-stimulating hormone, and luteinizing hormone all of which are primary actors in the secretion of hormones in both males and females. For more details on human sex and biology, refer to the appendix “Sexual Differentiation in Humans.”

⁶⁴ Ibid, 61.

services across the United States.⁶⁵ His lobbying of the Johns Hopkins administration and his push for the establishment of the clinic were instrumental in offering services to Trans people, affirming their gender identity, and initiating a discussion on Trans rights and visibility. However, for Trans individuals seeking sexual reassignment surgeries and intersex infants, gender fluctuated between two clearly distinct poles: male and female. Hormones at play, behavior, and societal performances still fixed gender within the extremes of male versus female, but never in an “ambiguous” space. Normalization of intersex people, Trans people, and any other ambiguous presentations was to be done within the accepted gender performances and gendered morphology as much as possible.⁶⁶

This recounting of the major research prior to Money’s rise in the field of psychology and sexology and his work during the first decades of his work allows to formulate a clear picture of the situation of the domain in the post-World War II period. From pediatric endocrinology to psychology and gender reassignment surgeries, the field of sexology experienced quite a revolution. Sociologically, with Kinsey’s work, sexology was embracing the “normality” of non-mainstream sexuality, and changing the discourse from immoral sex crimes to normal behavior among adult males and females. Medically speaking, there was a growing interest in pediatric endocrinology, which assisted in the development of clinical therapy for children presenting hermaphroditism. Money came in at a point in history when focus on intersex people began switching from adults with a fully developed gender identity and sexual orientation, towards infants, and when questions on the origins of sexual differences were central to the discourse. The growing research field on the morphology of these individuals necessitated an equal expansion of psychological studies and the effect of mis-gendering pseudo-hermaphrodite children from their “true” sex – based on a set of scientific tests. Money’s entry into the world of pediatric endocrinology catalyzed his theorization on the reality of gender roles, and helped him solidify his theories: nurture is a larger factor of gender development than nature. Money expands this theory to state that infants present a plastic period of

⁶⁵ Goldie, *The Man Who Invented Gender*, 90; Downing, Morland, and Sullivan, *Fuckology*, 133.

⁶⁶ Downing, Morland, and Sullivan, *Fuckology*, 133-57; John Money and Anke A. Ehrhardt, *Man & Woman, Boy & Girl* (Baltimore: Johns Hopkins University Press, 1972.)

actualization, where gender can be learned based on the performances and the expectations around them.

With this overview, one is able to understand Money's place in the history of the concept of gender. His interest was rooted within the rapid evolution of research on sexology and medicine in the post-World War II period, and the heavy interest in intersex people to understand human sexual differences. At that point in history, sexuality was changing rapidly, but societal constraints limited it due to conservatism. Intersex individuals were studied to better understand sex and gender, but their bodies were still forced to fit within the boxes of the gender binary, which undermines their agency, especially infants. Money aimed to fill a gap in the literature of sexology, and expanded his portfolio of work to different topics, from CAH patients, to chromosomal anomalies, transsexuality, and homosexuality. His research led him to coin a new definition for gender, and establish new terminology that was central to psychology, sexology, and sociology. The gender neutrality theorem was pioneering for this period of time, and implicated the fact that gender identity has social origins, which permitted for more open discussions over Trans and intersex bodies, as well as push the scale in favor of nurture over nature. Money clearly wanted to establish himself as an important figure in both science and society, as can be perceived in his commentary, from his earlier papers until his latter books.⁶⁷ He constantly stressed how his terminology was being adopted by social movements and other psychologists, which pushes one to believe that he did, indeed, see himself as a bridge between science and society, and a relevant voice in debates of nature versus nurture. Money based his gender neutrality theorem on the adaptability of Intersex people in their different gender reassignments. Later on, to maintain his innovator and pioneering image, he assumed that the theory could be applied to humans in general, based on the research and analysis of Intersex patients with similar diagnosis but different gender identities.⁶⁸ The David Reimer case would ultimately prove him wrong.

⁶⁷ Money, "Gender Role, Gender Identity, Core Gender Identity"; Money, "Gender: History, Theory and Usage"; Money and Ehrhardt, *Man & Woman Boy & Girl*.

⁶⁸ Goldie, *The Man Who Invented Gender*, 178.

CHAPTER II – QUEER PARIAH

DAVID REIMER

Who was David Reimer? Born an identical twin to Janet and Ron Reimer in Winnipeg, Canada, on the 22nd of August 1965, David Reimer was first named Bruce, and his brother, Brian. However, throughout his life, David would go through two other name changes, including Brenda. His story reflects the charged facet of the discussion on gender, and the pivotal aspect this concept played in Western and North American culture in the post-war period. By 1997, the case of David Reimer was propagated across all forms of media and moved different communities of both conservative and liberal views of gender to weigh in on the questions of how manhood and womanhood should be defined.⁶⁹ Bruce⁷⁰ and Brian were diagnosed with phimosis – a medical case where the foreskin of the penis is too tight and cannot retract to show the glans. This could obstruct urination, and could cause future issues with masturbation and other sexual acts.⁷¹ Upon prognosis, the twins' pediatrician suggested circumcision. However, as the physician was using the new method of electrocauterization, and due to a lack of practice, Bruce's penis was burnt off, and could not be surgically repaired. As for Brian, the doctors decided to not to operate.⁷² It was only in 1967, a year since the circumcision accident, that the parents regained hope in helping their son Bruce who was living without a penis.

In February 1967, Money had an interview on a Canadian TV show, titled "This Hour Has Seven Days," during which he presented his theories and his work. He was introduced as follows: "Dr. John Money, a psychologist at Johns Hopkins University is one of the leading advocates of sex change surgeries."⁷³ This televised moment connected him to the Reimer family, desperate to find a solution for their child.

⁶⁹ Goldie, *The Man Who Invented Gender*, 174.

⁷⁰ David Reimer had three different identities through his life. While his chosen one is David, to narrate his story, one must use his previous two identities as well: Bruce until the age of twenty-two months, and Brenda, which lasted until fifteen years of age. While his preferred pronouns would be "he, him, and his," when referring to his life as Brenda, to avoid confusion, the pronouns "she, her, and hers" will be used. This is in no way meant to disrespect David's memory, only a way to clarify different stages of his experience.

⁷¹ "Phimosis," *Gale Encyclopedia of Medicine, 3rd Ed.* Encyclopedia.com, <http://www.encyclopedia.com/medicine/encyclopedias-almanacs-transcripts-and-maps/phimosis>.

⁷² John Colapinto, *As Nature Made Him: The Boy Who Was Raised as a Girl* (New York: HarperCollins, 2006), 10-11; Brian's phimosis ultimately healed by itself.

⁷³ Colapinto, *As Nature Made Him*, 18-32, 39.

Wishing to apply his Gender Neutrality theorem to his clinical work, Money saw a unique opportunity to oversee the development of the victim's gender identity. Convincing the parents that Bruce's best option was to be raised as a girl, based on his previous studies on intersex infants born with ambiguous genitalia, Money was sure that his theories on gender identity development were based in empirics, and thus would succeed in rearing David as a girl. Thus, Bruce was renamed Brenda. Moreover, the situation with two twins gave way for Money to properly control the progress of Brenda's gender identity development in comparison to her twin brother, Brian for they shared an identical gene pool and would be raised together in the same environment. Reassigning Bruce as a girl Brenda, the Hopkins Gender Identity clinic convinced the parents to surgically remove the infant's testicles, and replace his urogenital system with a vaginal and a vestigial vulva.⁷⁴

Due to the distance between the patient's family and the Johns Hopkins gender clinic, visits were annual and rather limited. During these check-ups, Money would interview the parents and ask them about the development and the behavior of both kids, stressing on the differences they expressed. Money needed to ascertain that the rearing of Brenda was successful, that her gender reassignment was the correct choice. Not only was the success of this case related to the perception of Money's career, but also to the empirical realization of Money's gender fluidity concepts and his desire to establish himself as a pioneer in intersectional domains.⁷⁵ The "John-Joan" case⁷⁶ was constantly reported as successful by Money's team. Between the ages of twenty-two months up to Brenda's early teenage years, the family stayed in contact with the Hopkins clinic, and sent constant letters to update Money and the other therapists of Brenda's development. Janet, the twins' mother, sent multiple letters as updates of the situation.

It was in his 1972 book, *Man & Woman, Boy & Girl*, that Money and his associate Anke Ehrhardt, first published information on the success of this case. In the book's preface, the authors claimed that this book would be of interest to students

⁷⁴ Ibid, 50-54.

⁷⁵ Colapinto, *As Nature Made Him*; Goldie, *The Man Who Invented Gender*.

⁷⁶ This title for the case was first used in 1995 by Diamond and Sigmundson, it is not one used by Money.

in multiple diverse domains, going from anthropology and ethology to genetics, psychology and neuro-endocrinology, for the book tackles gender differences on different levels, sexual differentiation, hormonal activity, and gender identity development.⁷⁷ The case encompassed multiple aspects central to this book and to the different academic fields that would use it as an intersectional compilation of information on gender development. Thus, the book gained prominence and the success of the case was propagated. In its section, titled “Rearing of a Sex-Reassigned Normal Male Infant After Traumatic Loss of the Penis,” Money and Ehrhardt recounted the story, and stressed the unusual aspect of the situation. Having convinced the parents to give their child a simple genital reconstruction at first, they delayed the full vaginoplasty to another period until Brenda is fully grown.⁷⁸

The Johns Hopkins gender clinic was fully equipped to support the family throughout the reassignment. Money and his associates gave the parents advice and counseling based on similar experiences with the reassignments of intersex babies. Moreover, the clinic did indeed confirm to the parents that Brenda will grow up to “differentiate a female gender identity in agreement with her sex of rearing,” and were confident that Brenda’s development would follow that of other successful sex-reassigned intersex infants.⁷⁹ Six years since the primary surgery, Money and Ehrhardt were still receiving letters and updates from Janet, claiming that Brenda was behaving fully as a girl. These next two paragraphs are direct quotes from this book, which quotes Janet’s letters:

The mother stated that her daughter by four and half years of age was much neater than her brother, and in contrast with him, disliked to be dirty. “She likes for me to wipe her face. She doesn’t like to be dirty, and yet my son is quite different. I can’t wash his face for anything... She seems to be daintier. Maybe it’s because I encourage it.” Elsewhere in the same recorded interview, the mother said: “One thing that really amazes me is that she is so feminine. I’ve never seen a little girl so neat and tidy as she can, when she wants to be... She is very proud of herself when she puts on a new dress, or I set her hair. She

⁷⁷ Money and Ehrhardt, *Man & Woman, Boy & Girl*, xi.

⁷⁸ Ibid, 118.

⁷⁹ Ibid, 119.

just loves to have her hair set; she could set under the drier all day long to have her hair set. She just loves it.”⁸⁰

The mother of these two children was particularly good at pointing out the specifics of the female and male adult reproductive roles to her daughter and her son. When an incident happened that could be interpreted as penis envy in the girl [...] she successfully offered explanations geared to the specific advantages of being a female [...]. The incident happened sometime when the children were five years of age. Both children were taking a bath together and the boy was bragging about his penis which was erect. The mother described the situation as follows “... he managed to get a hard on, and he was standing there and saying, look what I got, look what I got, proud as a peacock and she (his sister) got so mad she slapped him – she didn’t like it – right on his little penis. I think, she was a little jealous. So then I went and I told her you wait and see, women can have babies and boys can’t.”⁸¹

Based on these two examples from the letters, the Reimer family seemed to be happy with their child’s new gender, and Brenda was growing into her role as a feminine, young girl. However, when the case became public in the 1990s, and the interviews with David ensued, he clarified how he experienced gender dysphoria and depression throughout his childhood. It is clear that the familial written reports sent to Money were inaccurate, and the information was modified to fit into what both the parents and the clinical team expected from Brenda. In reality, according to David’s claims later on, he was always jealous of his brother Brian for being allowed to play with boys’ toys such as cars and dinosaurs, while he was limited to dolls and kitchen play.⁸² Throughout her youth, Brenda was constantly teased and bullied at school for having rather a masculine appearance for a girl. In fact, when she reached puberty, she started receiving estrogen-hormone therapy to feminize her body and initiate breast development, based on Money’s prognosis and recommendations. Despite going through hormonal treatment and behaving as a girl, Brenda experienced severe gender dysphoria.⁸³

The visits to Baltimore were traumatic and used to terrify Brenda. After more than ten years of follow up, at the onset of puberty, Money insisted on a vaginoplasty, which the parents kept delaying. However, between 1972 and 1978 their visits to

⁸⁰ Ibid, 120

⁸¹ Ibid, 121

⁸² Colapinto, *As Nature Made Him*.

⁸³ Ibid; Goldie, *The Man Who Invented Gender*.

Johns Hopkins were scarcer. In fact, in 1978, Brenda threatened to commit suicide if she had to visit Money's clinic yet another time. The Reimer parents listened to their child, and ended all contact with Johns Hopkins. This led Ron Reimer in 1980 to tell Brenda the truth about her birth, consequently pushing her to change her name from Brenda to David and assume a male identity. David stopped receiving estrogen, and started testosterone therapy to masculinize his body. Between the ages fifteen and twenty-one, David underwent a double mastectomy to remove his breasts and a phalloplasty to reconstruct his penis.⁸⁴

It was only in 1997, when John Colapinto, a reporter, published an article in *Rolling Stone*, titled "The Boy Raised as a Girl," which followed up on the John-Joan case, that it reached international recognition. Reporters found Reimer and shed light on what he had been through during his years as Money's patient. However, Colapinto did not discover or recount the case overnight. While Money and Reimer lost contact and did not reconnect till around 1978, Money continuously claimed and boasted of the success of the John-Joan case, such as in his book with Patricia Tucker *Sexual Signatures: on Being a Man or a Woman*. In a sense, Money was proud that his theory of gender neutrality was validated; for him, Reimer was proof of gender plasticity, and the importance of nurture in relation to gender identity development. Money had many opponents throughout his career; however, one in particular was continually adamant on discrediting Money and his theories, Milton Diamond. Diamond is a biologist whose beliefs contradicted Money's: for him, biology is destiny, and the genome and the karyotype are the key to understanding an individual. He believed that an individual's chosen gender identity was only second to their biological one.⁸⁵ Continuously opposing Money's views, Diamond was interested in following up on the John-Joan case. After a few years went by without any updates on the case from the Johns Hopkins team, Diamond tracked down adult Reimer who was now living as a man named David, married to a woman, and raising her three children. Diamond was able to obtain the information on Reimer through the psychiatrist, Keith Sigmundson, under whom Reimer's actual psychiatrist was

⁸⁴ Ibid.

⁸⁵ Goldie, *The Man Who Invented Gender*, 119, 177.

employed, by posting an advertisement in a newspaper. Subsequently, he realized that Money's research had failed, and the case of David Reimer disproved his theories.⁸⁶

When Money and his colleagues, the Hampsons, were publishing articles on the importance of nurture versus nature in the rearing of gender identity, Diamond was still a graduate student in biology. Yet from this early stage in his career, he was already opposed to the concept of nurture over nature, and believed that their theories of gender neutrality fostered deception, and argued that to prove their theory they must be presented with a normal male individual who is successfully reassigned as a female or vice versa.⁸⁷ Money responded to Diamond's criticism in 1971, disparaging him as a mere student in anatomy, while asserting that he was an experienced sexologist who has worked many years on intersex people. Ultimately, Diamond championed Reimer's case to defame and disprove Money. As soon as Diamond followed up on the case, he published an article in 1997, in collaboration with Sigmundson, titled "Sex Reassignment at Birth: A Long Term Review and Clinical Implications."⁸⁸ This scientific report was the direct lead to Colapinto's article in the same year, and then his book, *As Nature Made Him*, published in 2000.

Terry Goldie argues in his book *The Man who Invented Gender* that it was Colapinto's tone in his recounting of Reimer's story, rather than the facts used, that proved to be a major factor behind Money's defamation and the end of his career.⁸⁹ According to him, Colapinto made Money the primary villain of the story, shaping it out to avoid blaming the parents or other members of the Johns Hopkins team. Describing him as an arrogant individual, Colapinto concentrated primarily on Money's obsession with success, presenting him thus as a conniving egomaniac. The back cover of *As Nature Made Him* claimed that this was "a macabre tale of medical arrogance"; Goldie claims that the usage of the word "arrogance" in this sentence

⁸⁶ Ibid, 180.

⁸⁷ Milton Diamond, "A Critical Evaluation of the Ontogeny of Human Sexual Behavior," *The Quarterly Review of Biology* 40, no. 2 (June 1965): 147–75, doi:10.1086/404539.

⁸⁸ Goldie, *The Man Who Invented Gender*, 180-81; Milton Diamond and H. Keith Sigmundson, "Sex Reassignment at Birth," *Archives of Pediatrics & Adolescent Medicine* 151, no. 3 (March 1997): 298–304, doi:10.1001/archpedi.1997.02170400084015; John Colapinto, "The True Story of John/Joan," *Rolling Stone*, December 11, 1997.

⁸⁹ Goldie, *The Man Who Invented Gender*, 176.

was not in fact medical, but rather discussed the personal arrogance of Money.⁹⁰ The interpretive tone Colapinto adopts sets the tone for Money's future reputation: it was a sad end to a rising career, and he became a synonym for scientific errors. Colapinto's choice of words was deliberate to sensationalize the story, and build a monstrous image of Money. He repeatedly mentioned Money's charismatic personality, and used it as a fault rather than a quality, to exacerbate this image of a mad scientist with an ego issue. For example, through his two first chapters, Colapinto stressed how his charisma, although made some people envious, rubbed off often wrongly on others.⁹¹ According to him, Money was too eager to start Reimer's transition, pressuring the parents into a rather hasty decision.⁹² Nevertheless, it is important to stress that neither Goldie's criticism and apologism or Colapinto's tone or commentary on Money are indeed the "true" story. Rather, it is necessary to point out the subjectivity of the different reports on Money's personality. However, there is no doubt that Money was indeed obsessed with his image as a pioneer: even during his interview on the Canadian TV channel in 1967, he took the opportunity to claim that he was a pioneer in the domain of sexology. Even his response to Diamond's article in 1971 was harsh and dismissive, coming from a haughty point of view, referring to Diamond as a mere graduate student. He ultimately put the Reimer twins through an exhibitionist environment, which can only be seen as abusive, regardless of his theories or his care for these children.

Nonetheless, Goldie does indeed have a point on the tone and the impact of Colapinto's story: the only victim in this case is David Reimer, and everyone else played an important role in the damage caused. However, Colapinto's book was a bestseller, and its impact was broad due to all the interviews held on national television and radio shows in the United States. There were approximately one hundred newspaper articles that were published in this time period across the United States and Canada, some diving deep into the Reimer case, and almost every single one of them described Money in a negative light while giving praise to Colapinto's

⁹⁰ Ibid, 175.

⁹¹ Colapinto, *As Nature Made Him*, 1-30.

⁹² Ibid, 30-40.

book.⁹³ He asserted that Money only claimed successful adaptation of Brenda into her newly assigned gender to validate his research, while in reality the child was repulsive of feminine behavior; thus, his reports were falsified to push forward his theories. However, as seen in *Man & Woman, Boy & Girl*, Janet Reimer played an important role in transmitting information to Money about her child's development, and her tone was rather hopeful and positive, as seen in the excerpts above.

Colapinto was fixated on Money, for he thought that the sexologist was the reason behind Reimer's problems. Married to a woman with three children, Reimer had been suffering from depression due to financial issues, marital problems, and a lack of sexual satisfaction. He also recounts different claims by the Reimer twins that Money pushed them to emulate sexual positions; while Money believed that sexual simulation was a necessary part of sexual development in children, in fact he did not make it part of his clinical work. Colapinto aimed to portray him as a sexual pervert who was only interested in the success of his theories rather than the personal growth of his patient.⁹⁴ He distorted some of the comments Money wrote in his book *Sexual Signatures*, where Money mentions that in some cultures parents and progeny sleep in the same room, which leads the parents to sometimes have intercourse in the same space.⁹⁵ Colapinto modified this sentence to make it seem as if Money recommended to parents to engage in coitus in front of their children.⁹⁶ He needed a villain for his story, and Reimer was traumatized by this character in particular, as he was closely associated with his gender dysphoria, so it was natural for a pop writer to vilify and distort this reality: Money did not rush or pressure the parents into the gender reassignment surgery because Reimer was a twin. In fact, he claimed that the twin factor was not fully advantageous, because David's medical history would have to be revealed at an earlier age due to the presence of his twin.⁹⁷ However, it should be recounted that the Reimer brothers, during their latter interviews, claimed that Money had forced them to re-enact sexual positions, where "Brenda" would take the

⁹³ Goldie, *The Man Who Invented Gender*, 176.

⁹⁴ Ibid, 183.

⁹⁵ John Money and Patricia Tucker, *Sexual Signatures: on Being a Man or a Woman* (London: Sphere Books, 1977), 135.

⁹⁶ Colapinto, *As Nature Made Him*, 98.

⁹⁷ Goldie, *The Man Who Invented Gender*, 185.

submissive/bottom position, and Brian the active/top role, as Money believed in the the development of sexuality during childhood. While not necessarily pedophilic, this behavior did, in fact, put the Reimer brothers through emotional strain, and affected them. Not only did they have to strip naked, be inspected by a room full of psychologists, scientists, and physicians, bombarded with questions over their desires and psychology, the re-enactment of sexual positions was definitely proof of Money's obsession with establishing empirical evidence of his theories, no matter what. However, for the context of the times and with the technology available, Money did possibly give the parents the best option available, but his methods were highly questionable. While the medical field would disagree with this approach today, Money did not solely think of his theories and research when introduced to the Reimer family.⁹⁸ However, one cannot deny Colapinto's point of view either.

Ultimately, one of the main consequences to Colapinto's report and book was the invalidation of Money's theories. While his work was constantly questioned during his career, the John-Joan case completely sidelined him as a scientist and disproved his work. Activists of different backgrounds, with both conservative and liberal views bashed Money. Colapinto's report had done its damage and reversed Money's discussion on nurture versus nature, to a narrative where only nature prevails. But that is not only the report's fault: Money did not take into consideration that Reimer was not born intersex, put the twins in traumatic scientific environments of observation, and pushed David to abide by stereotypical gender performances of femininity. Conservative voices deemed Money as a heretic, going against what nature prescribed, while liberal ones believed that Reimer should have had the choice in deciding his gender identity, rather than being subjugated to his parents and his physicians' decisions. The following section looks at the response of the queer community, specifically the Intersex and Trans communities of the United States, and queer theorists, such as Anne Fausto-Sterling and Judith Butler.

⁹⁸ Ibid, 185-187; Downing, Morland, and Sullivan, *Fuckology*, 78; John Money, *A First-Person History of Pediatric Psychoendocrinology* (New York: Kluwer Academy/Plenum Publishers, 2002), 72.

REACTION OF THE INTERSEX AND TRANS COMMUNITIES

Before tackling this section, it is imperative to define what is meant by Intersex and Trans communities. Money's work, as discussed in the previous chapter, engaged with different gender identities, bodies, and "anomalies." He was interested in anything related to this concept, and was constantly analyzing different aspects of the human body to understand the sources and the development of gender. His work expanded from intersexuality to paraphilias, as well sexual orientation, hormonal development, psychology, and dyslexia. Money pushed for the establishment of a sex reassignment clinic at Johns Hopkins to offer Trans individuals the opportunity to transition if they desired it. In light of the Reimer case, these communities were outraged: Intersex and Trans activists across the United States mobilized to vocalize their concerns. For the sake of this thesis, Intersex and Trans communities are defined by the Intersex and Trans individuals, in particular the activists, of the United States, in the period spanning from 1997 to 2005 approximately.

The reason for this time period and limit in space is to better understand the mobilization and the activism that ensued after the Colapinto article. Moreover, it is during this period that not only did the Colapinto book get published (in 2000), but also Anne Fausto-Sterling's *Sexing the Body: Gender Politics and the Construction of Society* (published in 2000), and Judith Butler's *Undoing Gender* (published in 2004). Fausto-Sterling's book is an overview of the history of gender and sexuality, how concepts of sexual difference fluctuate between different domains, such as law, medicine, and sociology. She dives into the historical treatment of Intersex people, and her argument deconstructs the factuality of science, and clarifies the deep interactions between society and science.⁹⁹ On the other hand, Butler's closes in on the medical treatment of Intersex people, and uses it to reassess her theory of gender performativity, which was established in 1990, in her book *Gender Trouble*.¹⁰⁰ This theory and its relevance to John Money are clarified further in this chapter. Additionally, *Undoing Gender* and *Sexing the Body* discuss Money's work on intersex people and assess the Reimer case.

⁹⁹ Fausto-Sterling, *Sexing the Body*.

¹⁰⁰ Butler, *Undoing Gender*.

With these queer perspectives, the two authors shed light on the political and sociological impact of this case, and its repercussions in the Queer sphere. These two books were instrumental to vocalize, explain, and theorize on the political atmosphere in the LGBT community, especially amongst the Intersex and Trans communities. This time and space frame is necessary to contain the immediate reaction of this environment to the publication of these three books. The commentary in this chapter focuses on the queer community of the United States, where both Fausto-Sterling and Butler come from, because of the relevance of John Money and the Johns Hopkins clinic to this sphere. It is only realistic to narrow the frame, for their arguments encompass the political beliefs of the queer community. Moreover, with their international recognition in the fields of gender studies and queer theory, and their leading pioneering critical thoughts, they ultimately represent, to a certain extent, international queer political discourse.

As mentioned in this chapter's previous section, John Money's career received a heavy backlash because of the reaction from the Intersex and the Trans communities. One of the main arguments pushed by Intersex and Trans activists was one of agency. While it is clear that Money was erroneous in the prognosis and the prescription of Reimer's case, Diamond and Colapinto simply believed in nature over nurture: for them, Reimer was genetically a man, and was never meant to be a woman. It is a simple truth embedded in nature, norms, and societal constructs; by consequence gender is not malleable. However, the question of agency trumps the nature versus nurture discourse pushed by the two competing sexologists. What did David Reimer want, and did he have a say in his fate? "A person was transformed from one sex to another in order to give him a gender identity other than the default and other than his choice."¹⁰¹ Cheryl Chase, a prominent figure in this discourse and an Intersex activist who has debated Money's theories with him personally, claims that the individual in question should have the choice to accept or reject his or her "default." This is a sentiment many Intersex activists also echo. Decisions should not be made by families or doctors, especially in the case of infants; "the social or psychological reasons why David could not become a girl are irrelevant: the point is that he did not

¹⁰¹ Goldie, *The Man Who Invented Gender*, 181.

want to be a girl.”¹⁰² There is a drive by these societal structures that act in the background of the scientific field that pushes researchers and scientists to apply, adapt, and perpetuate constructs to their findings and patients, as means to maintain a normative. Money, despite his pioneering theory, was affected and abided by the binary structure of normative gender.

According to Goldie, Money did not aim to “normalize” his patients or to “reconfigure” them; rather he recognized that their “deviance” just needed a different solution or response. For the Trans individuals, he pushed for gender reassignment.¹⁰³ However, in retrospective, while recapitulating the different narratives on Money, even through his own style and vocabulary, one cannot deny the fact that Money, while a strong proponent of gender plasticity and malleability, believed in its existence within the normative binary. Depending on the storyteller, whether it is Colapinto or Goldie, Money definitely maintained a strong belief in the two sexes and their attributed normative performances. Goldie argues that Money’s beliefs did not abide by the binary, but rather were affected by social organization. According to him, this is why he “advised” his Trans patients, and why he argued for early gender reassignments. He claims that Money was just protecting his intersex and Trans patients from the harm of a binary society. Yet, as mentioned previously, this is not the truth. Looking back at the descriptions that Money used of young Brenda and his discussions on gender, Money’s expectations of the two genders were molded into the binary, and perpetuated normative social behavior (i.e. women are supposed to be nurturing and delicate – normative femininity; men are supposed to be protectors and macho – normative masculinity).

Money in a sense was perpetuating the everyday culture of the male-female dichotomy. As seen in the first chapter, the history of gender in this field is speckled with societal influence to the point that the agendas of physicians, and medical and scientific researchers are heavily influenced by broader social norms and constructs.¹⁰⁴ Fausto-Sterling stresses this point in the introduction of *Sexing the*

¹⁰² Ibid.

¹⁰³ Ibid, 126.

¹⁰⁴ Anne Fausto-Sterling, *Myths of Gender: Biological Theories About Women and Men* (New York, NY: Basic Books, 1985), 9.

Body: she states that sex and genitalia are constructed, and she dedicates her second through fourth chapters to prove the constructed aspects of what society believes are a reality. She uses historical examples of legal and social narratives to pinpoint the interactions between society and science. She claims that the obsession of science with sex and nature as facts and the dismissal of gender and culture create a false dichotomy that perpetuates the harm of intersex and Trans individuals. Physicians and surgeons thus find legitimacy in this dichotomy to impose “appropriate” normative genitalia onto these individuals that are born with ambiguous genitalia. Agency is stripped, and worth is equated with whatever one has in between their legs. Physicians use their expertise to impose “facts” or “nature” onto these patients, and render their intersexuality invisible. Consequently, they reinforce the same constructs that influenced these medical traditions, and strengthen their grasp over society.¹⁰⁵

John Money had an inherent binary thinking, and one could argue that it was this limited perspective of the gender spectrum and his need to fit his patients into normative expectations that pushed him to fail at understanding the needs of David Reimer. The mythology of the Intersex body needing to fit into neat and binary boxes of gender, combined with the malleability that some of Money’s patients have presented, are what pushed Money to believe in the fluidity and plasticity of gender, and to apply his theories on Reimer, who Money claimed was an “aphallic normal boy.” There is a common trend observed through Money’s work and reports on his intersex and Trans patients: he was constantly concerned with the shape of the genitalia, rather specifically the penis. Money believed that the shape of the vagina is secondary to a woman’s pre-pubescent development, while the penis was instrumental to a man, even during his childhood. This control of the genitalia controls the perpetuation of the gender binary and limits the fluctuation of gender outside of these boxes; Chase has been fighting the norms of the medical establishment since she founded the Intersex Society of North America in 1993.¹⁰⁶ She argues that a political mobilization of the Intersex community did not necessarily exist; politicization of a united Intersex front only started to appear post-1994, after

¹⁰⁵ Fausto-Sterling, *Sexing the body*, 27-28.

¹⁰⁶ Ibid, 8, 81; Cheryl Chase, “Hermaphrodites with attitude: Mapping the Emergence of Intersex Political Activism,” In *the Transgender Studies Reader* (Routledge, 2013), 316-330.

the creation of INSA, and slowly expanded internationally.¹⁰⁷ While the INSA is relatively more politically radical than more recent organizations – in the sense that INSA lobbies against any form of procedure for intersex children that does not relate to a life or death situation – their ideology is resonant throughout the different coalitions: why should one care about the human body and the genitalia? What is the definition of a woman, and why is womanhood defined by body parts such as breasts, a vagina, a uterus, and a clitoris? Why is manhood defined by a penis, testicles, and a prostate? What is a “natural” sexual equipment, and why does one care about how people use them? Money was obsessed with these questions when treating his patients, and were simply a way “to maintain gender divisions,” and to control unruly bodies who challenge the definitions, limits, and constructs of society, “since intersexuals quite literally embody both sexes, [and] weaken claims about sexual difference.”¹⁰⁸

By this argument, one can clearly understand the full effect that Money’s work on intersex people had on the Intersex and Trans communities, and also the consequences of the Reimer case. Indeed, through his imposition of the gender binary and normative gender roles on his patients with ambiguous genitalia, Money was maintaining a system of invisibility, oppression, and political hegemony. Regardless of his intentions and his innovative ideas – fearing for the social acceptance of intersex people with ambiguous phenotypes – Money did, indeed, convince parents of intersex children or children with ambiguous genitalia to choose one or the other gender. He kept stressing the importance of the nuances of gender role and identity, for sex-reassigned individuals, whether intersex or transsexual. He firmly believed that such a person, say a trans woman, needs to imbue her life with the intricacies of her assigned gender, otherwise her identity is effaced and her life is unintelligible by society due to a lack of a clear gender code.¹⁰⁹ As one can conclude, one of the main reasons why the Reimer case gained international attention was the fact that the person in question was a “natural” male, born with XY chromosomes

¹⁰⁷ Cheryl Chase, “Surgical Progress Is Not the Answer to Intersexuality,” *The Journal of Clinical Ethics* 9, no.4 (Winter 1998): 385–92.

¹⁰⁸ Fausto-Sterling, *Sexing the Body*, 8.

¹⁰⁹ Goldie, *The Man Who Invented Gender*, 122-123.

with no ambiguity in the genitalia. The case was not one of intersexuality or transsexuality, but one of imposed gender reassignment, even more so a double one. As Butler states in *Undoing Gender*, David was forced into Trans identity, and through two sexual reassignment surgeries, due to his agency being stripped away the first time.¹¹⁰

In her works on queer theory, Butler brings in the question of power and gender through her concept of gender performativity. She mentions “gender performativity” for the first time in her 1990 book *Gender Trouble: Feminism and the Subversion of Identity*, in which she analyzes and criticizes the normative constructs of gender. Butler first connects gender and performativity through the argument that gender is a performance. Performance is a doing, and by doing a performance one constitutes an identity, hence why gender is a doing, and always a doing since it constitutes the identity of the person in question.¹¹¹ Yet, she goes on to draw a linguistic difference between “performance” and “performativity:” to perform gender means to act, to play a role and portray it. On the other hand, stating that gender is performative means that the act of gender perpetuates and consolidates a simple behavior into an internal reality. Rather than simply acting, performativity puts power at play by producing and reproducing a behavior constantly until it seems truth and factual.¹¹² Performativity is a “reiterative power of discourse” that produces the same phenomenon it regulates.¹¹³ Performativity cannot end and is ongoing outside of a person’s control: identity is produced by performativity.¹¹⁴ In that sense, gender performativity thus permeates through all aspects of society, since individuals are daily and constantly contributing to the evolution of their environment, and thus behaving in ways that uphold the binary.

Consequently, gender performativity holds power, and is behind the structures of society, as it creates identity rather than being a consequence of identity.¹¹⁵ Reimer is a victim of this power, succumbing to the interplay of gender. Both Money and

¹¹⁰ Butler, *Undoing gender*, 63-74.

¹¹¹ Judith Butler, *Gender Trouble*, 25.

¹¹² Ibid, 23.

¹¹³ Judith Butler, *Bodies That Matter: on the Discursive Limits of "Sex"* (New York: Routledge, 1993).

¹¹⁴ Butler, *Gender Trouble*, 30.

¹¹⁵ Ibid; Sjoberg, “Gender, Structure, and War,” 10.

Diamond aimed to impose their beliefs of gender onto Reimer, one vouching for gender malleability, while the other stood by biological essentialism. However, it is important to stress, that both Money and Diamond believed that individuals should perform within social norms, and pushed Reimer to perform within one of two categories. They exercised power over Reimer's body, and enforced gender norms onto him. Butler criticizes both sides of the debate, and argues that Reimer could have existed outside of the two poles of normalization and nature, where Money enlisted the help of transsexuals to persuade Brenda of the positive aspects of womanhood, to normalize his gender neutrality theory, while the endocrinologist team David visited during his teenage years prescribed the transsexual sex reassignment protocol to follow his "natural sex or genetic sex," as it is his "nature" (and by extension, she criticizes Diamond who believed in the latter).¹¹⁶ Butler states that Money's social construct of gender malleability is rather too violent and has to be imposed to ensure its functioning. In other terms, gender is "forcibly imposed and behaviorally appropriated," making the malleable gender rather rigid in social constructs and only applicable through force.¹¹⁷ This is reminiscent of the lack of agency on Intersex bodies, and the coerciveness and harm the Intersex community has to endure at the hands of physicians and surgeons. Butler links the debate on Intersex agency and bodies to a narrative that is independent of either argument, independent of both Money's gender neutrality and plasticity, and Diamond's gender biological essentialism. Both parties, through their interactions with Reimer, maintained a constant gendered aspect to their intrusions: "do you feel like a girl?" "do you feel like a boy?" Ultimately, Butler aims to place Reimer in a narrative where his own self-description prevails, that gives his being justice, outside of the power structure of the gender binary. Nevertheless, she maintains that Reimer's language and vocabulary exists and takes place in a space that is "already saturated with norms," that preempts the definition of one's self-identity. Hence, why it is difficult to draw the line between Reimer's own lexicon versus the performatives to which he was subjugated to.¹¹⁸

¹¹⁶ Butler, *Undoing Gender*, 65-67

¹¹⁷ Ibid, 66.

¹¹⁸ Ibid, 69-73.

Reimer's first gender reassignment was at the rare intersection between intersexuality and Trans identity; firstly, because of the ambiguous aspect of his genitalia (as a consequence to the botched circumcision) and the consequent loss of agency during reassignment, and secondly, through a gender reassignment from boy to girl, and then from girl to boy. Coincidentally, Reimer was neither intersex or Trans. The case brought criticism on the lack of agency Reimer had in the decision-making process of the situation, and reminded the contemporarily politicized Intersex community of the impositions of science on their bodies, which were influenced and affected by societal norms of behavior and appearance. Thus, Reimer became a reflection of the debate on transsexuality and Trans identity. Not only was his lack of agency politicized by the Intersex community, his story was one of transsexuality. Reimer had lost his agency, and then his personal identity to become a central idea in the tug of war between nature and nurture, while continuously affected by the gender binary. Both Money and Diamond used Reimer's body to push forward their ideas of the sources of gender. Money extolled his experience and adapted it to expedite the evolution of his concept of gender plasticity; Reimer seemingly provided empirical evidence for his theory.¹¹⁹ On the other hand, Diamond used Reimer's body as a way to disseminate his belief in nature over nurture and to denigrate Money, a goal he strived for since Money's dismissal of his criticism in 1971. Diamond saw Reimer based on his Y chromosome; he was reduced to biological essentialism, to a random idea of masculinity and manhood perpetuated by science. He was subjugated to violent persuasion, as Brenda, to conform to the stereotypes of femininity, and interacted with trans women brought in by Money to convince Brenda of the "perks" of having a vaginoplasty, and how her happiness related to her genitals. Transsexuality was used as a method of persuasion, to perpetuate the binary, and extolled Trans experiences to embed Reimer in stereotypical gender roles. While Reimer was neither Intersex nor Trans, *per se*, his narrative is central to understand the politicization of these movements, and one can view the impact of Money on Queer Politics; his mistakes initiated a vital discussion on the politicization of Intersex and Trans bodies for the sake of the mainstream population.

¹¹⁹ Butler, *Undoing Gender*.

CHAPTER III – QUEER POLITICS

QUEER THEORY AND MONEY’S NEOLOGISMS

Feminism has met a lot of opposition from scientific domains, especially medicine and biology, which use biological differences as an argument to undermine the political aspect of feminist movements, and sideline minorities as less than the white heterosexual male dominated society. Feminist movements ceded the grounds of physical sex to defend ideological arguments of equality, which left them weak on the sexual and biological front.¹²⁰ It is in this conversation over the biological influences on gender identity that the effect of Money’s theoretical work is seen. His neologisms and his Gender Neutrality theorem were profoundly important in the medical and the scientific fields; where other practitioners and researchers undermined the revolutionary aspects of feminism, Money supported and enhanced their position. He believed and supported these social movements to a degree where he was labelled “the darling of second-wave feminists.”¹²¹ Due to these beliefs, and his argumentation for the nurture factor in gender identity development, Money was also called a social constructionist, which was one of the identifiers of the second-wave feminists and queer theorists, as they challenged constructs and structures of society. However, he disagreed with this identifier that others claimed for him, but declared in multiple instances, especially in his publications, that his goal was for his new scientific terminology to be used by the social sciences and social movements.¹²²

When Money met Reimer and initiated the experiment in 1967, he believed that the success of the case would lead to the confirmation of feminist ideas and concepts, that were initially inspired by his theory of gender neutrality. Not only did he see an opportunity to validate his life’s work, but he also saw it as a potential deeper influence into the social sciences realm.¹²³ His neologisms had a ripple effect in second-wave feminist thought, and the preliminary success of the Reimer case – prior to 1997 – was used by respective academics and scholars to argue against

¹²⁰ Fausto-Sterling, *Sexing the Body*, 4.

¹²¹ Downing, Morland, and Sullivan, *Fuckology*, 30.

¹²² Ibid, 19-40.

¹²³ Hanna Rosin, “A Boy’s Life,” *The Atlantic*, November 2008, <https://www.theatlantic.com/magazine/archive/2008/11/a-boys-life/307059/>.

discrimination, further the feminist cause, and prove that “the gender gap was purely a result of cultural conditioning, not biology.”¹²⁴ Moreover, it is during this period that feminists were able to find their own theoretical and political voice, by using gender as an analytical category to expand their alliances with other scholarly and political movements. Money’s conceptualization and publication of the first signs of the Reimer case’s progress in *Man & Woman, Boy & Girl* gave feminists the opportunity to argue against the hard embedded “truths” of science, and thus critique empiricism and societal constructs through a post-structuralist perspective.¹²⁵ When Money popularized the differentiation between sex and gender, and separated them in two categories, the feminist movement latched on to these ideas, and used them to further their agenda. With sex limited to anatomy, physiology and genetic determination, gender was perceived as a psychological and behavioral acquisition, expression and translation of one’s identity affected by the environment.¹²⁶ A prime example of Money’s neologism impact on second-wave feminism is observable in feminist theorist Gayle Rubin’s argument in her essay “The Traffic in Women: Notes on the Political Economy of Sex” published in 1975 in *Toward an Anthology of Women*. She uses the gender-identity/role model to refer to a set of arrangements by which the biological raw material of human sex and procreation is shaped by human, social intervention.”¹²⁷ She believes that feminist theories and movement’s ultimate goal should be the creation of a “genderless (though not sexless) society in which one’s sexual anatomy is irrelevant to who one is, what one does, and with whom one makes love.”

For second-wave feminists, the gender neutrality theorem and the concept of gender malleability were used to legitimize their call for equal pay and equal rights, by criticizing the “facts” of medicine and science. The influence of this theory and the Reimer case were not necessarily in advantage of a greater acceptance of the queer community, especially Trans and intersex individuals. Rather, they were

¹²⁴ Colapinto, *As Nature Made Him*, 1-30.

¹²⁵ Scott, “Gender: A Useful Category of Historical Analysis,” 1070.

¹²⁶ Fausto-Sterling, *Sexing the Body*, 3.

¹²⁷ Downing, Morland, and Sullivan, *Fuckology*, 19-40; Gayle Rubin, “The Traffic in Women: Notes on the Political Economy of Sex,” in *Toward an Anthology of Women*, ed. Rayna R. Reita (New York: Monthly Review, 1975), 157-210, 165, 204.

adapted in a sense to fulfill the necessary discourse specific to cis-women and their needs in the movement. Overviewing some of the discussions initiated by second-wave feminists on Trans issues, many theorists, such as Janice Raymond, argue that transwomen are not women, because they hold the privilege of manhood, and through their previous identity, continuously enforce the domination of the phallus over women's bodies.¹²⁸ Even so, despite Money's mistakes and controversial ideas, he never believed that a reassigned person, who is happy with her reassignment, should not be identified as this gender she is thriving in. Even though he was interested in their situation and their identity, aiding them in reassignment to further his research, he still believed that their demands are the best way to treat them.¹²⁹ His methods were not conventional, and looking back at his work today, especially on Trans individuals, one cannot but notice gaps and a form of insensitivity in Money's logic – such as how he viewed Trans people as anomalies needing treatment. However, his belief and his support of their rights for reassignment in a conservative medical environment contrast with the way his neologisms and his theories were used by some transphobic second-wave feminists. The gender gap and equal pay were of higher importance to their agenda rather than the acceptance of other outcasts and minorities. The discussion over the lack of intersectionality among second-wave feminists can easily drift into a different subject, and lead to a sidelining of the important argument of this section: how did the usage of the neologism of gender and the attached theories differ between Money's contemporary feminists and queer theorists?

On the other hand, there is a striking resemblance between Money's theory of gender neutrality and queer theory's gender fluidity. Proponents of this movement argue that gender is a social construct and thus, is a factor of society. Moreover, this leads to believe that gender is a spectrum and thus fluid. Comparatively to Money's theory of gender neutrality, one can draw common points: both theories believe in the malleability and fluidity of gender, and both value the factor of nurture over nature in relation to the development of gender identity. As discussed in Chapter 1,

¹²⁸ Janice G. Raymond, *The Transsexual Empire: The Making of the She-Male* (Boston: Beacon Press, 1979), 104.

¹²⁹ Goldie, *The Man Who Invented Gender*, 109.

and expanded on in Chapter 2, Money's gender neutrality theorem, his concept of the G-I/R and his gendermaps reveal an underlying aspect of gender performativity. While this latter expression was only coined by Judith Butler in 1990, Money did believe in the societal influence on gender, and its permeation through all aspects of everyday life, from the validation of one's identity to the interactions with others, which is strikingly similar to Butler's theory of gender performativity. However, and it must be stressed, the main difference between these two theories – despite the common usage of the words and expressions of gender, gender role, and gender identity – is the fact that Money believed strongly in stereotypical gendered behavior. Money was a firm believer in the gender binary, which was discussed in the previous chapters. One must recall Money's position towards intersex and Trans individuals: while his conception of gender role was fluid and flexible, he still pushed his patients to choose a gender and perform accordingly. "Gender coding is by definition dualistic. One half of the code is for female, the other for male. A child must assimilate both halves of the code, identifying with one and complementing [*sic*] the other."¹³⁰ Arguably, Money was ahead of his time. He believed in gender neutrality and the plasticity of gender identity, but due to societal restrictions, he advised his patients to abide by these constructs, and to follow dictated gendered performances for the sake of repercussions and judgement. He did not believe in two absolute genders, but as Goldie argues, Money knew the effect and the inherent power of the binary structure in his contemporary Western society, therefore abiding by the gender binary to avoid ambiguity was necessary for survival and functioning.¹³¹ This argument brings into discussion two important aspects of queer theory: the heterosexual matrix and strategic essentialism.

In *Gender Trouble*, Butler argues that the patriarchal society imposes a heterosexual matrix on the body, and forces all individuals to abide by their constructs. This matrix is powered through social and cultural beliefs that have been

¹³⁰ John Money, *Gay, Straight, and In-Between: The Sexology of Erotic Orientation* (New York: Oxford University Press, 1990), 72

¹³¹ Rachel Giese and Chris Wodskou, "The Story of John Money: Controversial Sexologist Grappled with the Concept of Gender," *CBC - Canada's Public Broadcaster*, July 5, 2015, <http://www.cbc.ca/news/canada/the-story-of-john-money-controversial-sexologist-grappled-with-the-concept-of-gender-1.3137670> CBC Story of John Money.

perpetuated through time and space. Therefore, it becomes part of the structure of society and permeates through all its aspects. This heterosexual matrix combines three aspects of human identity in a linear binary model: first, *sex* is defined and *fixed* either as male or female based on the genitalia. This fixed identification forces the individual in question to assume a *stable gender* built by culture and societal environments, which could be either masculine or feminine, respective to the determination of the sex. By consequence, one's *desires* are determined according to the acceptable normative options: either same sex attraction or opposite sex attraction. This matrix goes from sex, to gender, to desire, in a binary way, which renders identities and individuals outside of the possibilities (male-female, masculine-feminine; same sex-opposite sex) invisible.¹³² There is no space for exceptions in this matrix, as the options are fixed and immobilized, and thus for survival options, one must conform, otherwise they are seen as outcasts. This is reminiscent of medical traditions based in societal beliefs through history, and solidified in the post-World War II era, by which Money abided. Despite the innovative aspect of gender neutrality, Money strongly believed in the constructs that limited and rendered queer bodies invisible. By reassigning intersex infants into a binary gender and modifying their ambiguous genitalia, Money was rendering their bodies invisible and abnormal, clashing with his belief in intersexuality's normality. The narrative surrounding Reimer during his visits to the clinic includes Money, his associates, transwomen, and Reimer's family convincing Brenda of the benefits of womanhood, domestic work, and child nurturing, all stereotypical aspects associated with femininity. What Money preached was contradicted by his actions, which were engrained in the binary.

Butler deconstructs the heterosexual matrix, and argues that sex, gender, and desires do not follow one another, and are not determined by each other. In fact, she claims that instead of having a fixed sex, one has a body; instead of a stable gender, one may perform an identity; and instead of determined binary desires, one may have desires. Butler states that with the different sexual developments illustrated by the

¹³² Butler, *Gender Trouble*; Nadine Milde, "Pop Goes the Queerness, Or, (Homo) Sexuality and Its Metaphors: On the Importance of Gay Sensibilities in Postmodern Culture and Theory," *Amerikastudien/American Studies* 46, no. 1 (2001): 135-50, <http://www.jstor.org/stable/41157633>.

different karyotypes, genetic recombination, chromosomal crossing-over, and genital sexual differentiation, bodies cannot be simply separated into either male or female, and are much more complex than this binary, hence why a fixed binary sex becomes simply a body.¹³³ As for gender, the current binary of masculine versus feminine is engrained in Catholic belief, and is a staple of Western culture, which consequently erases traditions and the history of cultures and communities who embrace a different system for gender organization.¹³⁴ Furthermore, identities do not have to follow the structure and the system of a masculine/feminine binary, hence why a stable gender is contrasted with the option to perform any identity. As for desires, since the identity is free from the shackles of a structure, and one is free to perform as they feel best, one is thus free to desire outside of the binary of gender: other identities and other bodies are now visible, their existence is validated, and one is free to desire beyond gender. Therefore, the categories of “woman” and “man” are incoherent categories and should not be used for generalizations or assumptions. Coincidentally, Butler argues that one of the flaws of second-wave feminism is its limitations to cis-women and the emphasis on the vagina, which blocks the evolution of feminism as a political thought, and by consequence goes against the mission of feminism, to open up cultural possibilities. Thus, it can be argued that the reasons Money’s theory of gender neutrality failed was because it was embedded in the gender binary.

The second theory mentioned earlier is strategic essentialism. Introduced by post-colonial and critical theorist Gayatri Chakravorty Spivak in the 1980s, this theory became central to many movements, including queer theory.¹³⁵ Strategic essentialism entails that it might be advantageous for marginalized groups to erase their individual identity and strengthen their group identity in a more simplified way to empower the community, thus “essentializing” themselves. It is a political mobilization tactic used by marginalized groups to render their group more advantageous in the face of adversity, rather than maintain a disunited front speckled by different disagreeing

¹³³ For more information on this topic, refer to the appendix “Sexual Differentiation in Humans.”

¹³⁴ Mosse, *Nationalism and Sexuality*.

¹³⁵ Gayatri Chakravorty Spivak, *Outside in the Teaching Machine* (London: Routledge, 1993); Gayatri Chakravorty Spivak, *The Post-Colonial Critic: Interviews, Strategies, Dialogues* (London: Routledge, 1990.)

singular identities.¹³⁶ Money's idea of aiding intersex individuals fit better within society's constructs is indeed essentialism: Money persuaded and convinced his patients, or his patients' families that erasing their intersex "ambiguous" identity would help them survive better the harshness of the binary, since they become visibly non-intersex, and are thus "essentialized" into the mainstream. However, unlike queer theory's strategic essentialism, this form of essentialism dismantles the group identity as well as the individual one, and helps engrain the heterosexual matrix and its binaries. Strategic essentialism would, on the other hand, empower these individuals to voice their concerns, rights, and needs on a political level, when social structures are built in a way that constantly renders them unheard and unseen. Money's perpetuation of the binary played an important part as to why there was no clear political mobilization of the Intersex community prior to the 1990s, as Chase argues. Money did not differentiate majorly from his predecessors in terms of abiding to social norms of behavior. Despite his increased interest in the psychology of intersex and transsexual people, and pushing for a greater acceptance of these communities for a normalization of their sexualities, Money's essentialism was an extension of years of intersex and Trans invisibility; if it were strategic in any way, its strategy only benefitted the mainstream social norms.¹³⁷

Ultimately, Money's neologisms did play an important role in creating a language previously non-existent, which was necessary for the evolution and development of social movements. The heftiness of the word "sex" pushed Money to coin new terminology and new expressions that affected both the scientific and the social fields. Money did indeed succeed in pioneering a language into social spheres. The progress of feminism through the 1960s and 70s was based on Money's theories and neologisms of gender and gender neutrality, which pushed forward their agendas.¹³⁸ In a sense, Money achieved his goal. Moreover, one cannot deny the connections between queer theory and the feminist movement, especially the third-wave, as they are closely interconnected. Judith Butler is both a third-wave feminist and a queer theorist, and is also a critical theorist. Moreover, queer theory was heavily influenced

¹³⁶ Spivak, *The Post-Colonial Critic*; Spivak, *Outside in the Teaching Machine*.

¹³⁷ Ibid; Butler, *Undoing Gender*; Fausto-Sterling, *Sexing the Body*; Fausto-Sterling, *Myths of Gender*.

¹³⁸ Goldie, *The Man Who invented Gender*, 179; Money and Ehrhardt, *Man & Woman, Boy & Girl*.

by feminism.¹³⁹ The language used by queer theorists is thus linked to Money's concepts. However, Money's theories still contrast majorly with queer theory, for his theories were deeply engrained in the binary and go against gender performativity. His actions and decisions were imbedded in the heterosexual matrix, and thus limited in their evolution. While his ideas were revolutionary for the time period, he did not break out of the structures that would have pushed his concepts of gender plasticity further. With the development of queer politics and theory, the language and the vocabulary of Money's contemporary period changed: gender identity and gender role are still very much alive within the everyday and the academic lexicons, however new expressions, concepts and theories have become as important, and thus expanded the field into new horizons. His neologism of the concept of gender is thus important to queer politics, as gender role and gender identity are central to queer theory and dialogue. However, the question that remains is that of recognition: is Money's impact overlooked because of his mistakes? In fact, due to the Reimer case and Money's own obsession with his image and prestige, it was *not* his pioneering vocabulary that led to a discussion on the bodies and the agency of intersex and Trans people, offered new perspectives on gender, and initiated a new discourse on the tug of war between nature and nurture nor is it necessarily celebrated, but the negative aspects of his theories as they ultimately and ironically affected the political mobilization of the queer community in a positive way.

¹³⁹ Nikki Sullivan, *A Critical Introduction to Queer Theory* (New York: New York University Press, 2007.)

SCIENCE VS. SOCIETY, NATURE VS. NURTURE

Money had always asserted that he aimed to be a bridge between science and society. As aforementioned, he wanted to interlink and fill the gap between them, specifically by expanding the definition of gender from both a social science and biological point of view. He believed this could be achieved through his G-I/R concept.¹⁴⁰ Money's neologism of gender in 1955 already aimed to fill the literature, however, he reasserted his role and his theories again when he defined the G-I/R concept, and when he created his gendermaps.¹⁴¹ As seen in the previous chapter, Money had a considerable impact on the second-wave feminist movement, if not on queer theory, at least through his terminology. His theory of gender neutrality also brought in the social aspect of development into the debate of sexual development and gender identity. This created a considerable turmoil in the scientific and social science domains; as even though science is constantly affected by societal dynamics and change, it is still rooted in traditions and cultures. Money brought to the foreground the dynamisms of these fields. His theory put into question the concepts of sexual differences that had and continue to dominate the field of medicine, and attempted to modify the perception of gender. Feminist theorists were able to join the debate, and argue from a sociological and political point of view for their rights and the advancement of their agenda by using these new concepts, that by then, had also managed to permeate the medical field.

By studying intersex individuals, Money was able to establish his theory of gender neutrality, and push the scientific field into considering nurture more seriously. However, because of his social conservatism and his strong belief in stereotypical gender roles, Money's voice did not reach its full potential. Gender was malleable, but only existed as either male or female, and behavior had to follow the social expectations of gender: women were docile, men were rough. Consequently, the discussion still pertained to the heterosexual matrix, and sexual ambiguity had to be controlled to fit into the gender binary. Intersex bodies could not exist, and

¹⁴⁰ John Money, "The Conceptual Neutering of Gender and the Criminalization of Sex," *Archives of Sexual Behavior* 14, no. 3 (June 1985): 282-85, doi:10.1007/bf01542110; Money, *Gendermaps*, 96-97.

¹⁴¹ Money, Hampson, and Hampson, "An Examination of Some Basic Sexual Concepts," 301-19; Money, "Gender Role, Gender Identity, Core Gender Identity," 397-402; Money, "Gender: History, Theory and Usage," 71-79.

ambiguous genitalia had to be “corrected.” Money followed a medical tradition that invaded intersex bodies; this, of course, included Reimer. Money forced them into traditional behaviors and appearances prescribed by society. However, in contrast, Money was more lenient and progressive with his Trans patients. In fact, Goldie argues that “Money never faltered in his commitment to transsexuals. While he was consistently interested in their [identity] and in possible explanations of any aspects of their conditions, he was ultimately convinced that fulfilling their demands for surgery was the most efficacious form of treatment.”¹⁴² Then why did he not apply the same beliefs on intersex people, especially infants? Money had revolutionary ideas in a time when societal conservatism and sexual liberalism were struggling against each other. As mentioned in the first chapter, Money was a relevant figure of the sexual revolution, as he was important both scientifically and sociologically, affecting medicine, psychology, and feminist theories. However, his upbringing and his more or less conventional beliefs in societal constructs limited the potential expansion of his theories. That being said, he still believed in the plasticity and malleability of gender, a concept that is central to the queer political discourse today and the theories pushed in queer academia. Today, gender fluidity is important to queer identity and is a discourse that is being widely had, becoming one of the pillars of the contemporary queer political agenda. As argued previously, for all Money’s contributions to today’s discourse, his theory of gender plasticity was only plastic within the context of the binary: rather than discussing a spectrum of genders, including ones outside the binary, Money believed that while gender can be changed because it is heavily influenced by nurture – the environment and culture – it is still an either/or scenario. A piece of the gender puzzle was missing. For this period, his ideas were indeed pioneering and generated the right questions necessary for a time frame such as the sexual revolution: is gender really a consequence of nature, or is it a function of nurture? It was a thought that was developed and furthered by a groundbreaking scientist, but his arrogance, his binary thinking, and his stubbornness – in relation to criticism and adaptation – ended up overpowering his previous works.

¹⁴² Goldie, *The Man Who Invented Gender*, 109.

His desire to maintain a hegemony over concepts, terminologies, and theories pushed him towards insensitivity in relation to his patients.

While the dimensions of the Reimer case are based on the opinions of two opposing point of views, with Goldie pulling for an apologist perspective of Money's work (claiming that he cared for his patients and put their interest first),¹⁴³ versus Colapinto's, which basically defames Money (portraying him as an egomaniac obsessed with success and fame), one can recreate the narrative and reestablish its context to properly analyze it: Money, a sexologist and psycho-endocrinologist, fascinated by the origins of gender, established the concepts of gender identity, met an "aphallic" infant, and saw a unique opportunity to apply his infamous theories to the test, since the individual in question had an identical twin, which was an exceptional control. While Reimer's forced identity as a girl troubled him to a great degree, his family believed in Money's theories for the longest while, which pushed Money to avoid recognizing signs of distress from his patient and continue the experiment regardless. Money's *methods* were unconventional, and sometimes controversial and abusive (such as the re-enactment of sexual positions.) In the context of that contemporary period, Money's *decision* to reassign young Bruce as a girl followed the protocol and the expectations of the medical field: Money treated his non-intersex patient, as yet another intersex child. For most cases of ambiguous penises, the easier choice of reassignment was the female gender. Both Money and his associate Richard Green agree that this was the best option for Reimer at the time, while it would not be the case today. Until the disproof of Money's theories by Diamond, his work was questioned, but was also revered as discussed in previous sections of this thesis. His impact was relevant during his rise to fame, physicians across the United States were implementing his work on intersex children, and his preliminary success with the Reimer case was celebrated across the fields he wanted to connect.

However, Money's bridging of disconnected research and academic domains did not prevent the perpetuation of what this essay defines as the "pseudo-biology of gender." Theorization over sexual differences and gendered behavior has been a

¹⁴³ Goldie, *The Man Who Invented Gender*, 51.

constant through history, with medical discoveries obsessing over the smallest physiological differences between the sexes. Money aimed to disrupt this medical tradition by bridging the chasm between “hard and pure” sciences and social sciences with his social constructionist view of gender identity. However, due to his beliefs being embedded in the gender binary, Money only believed that the concepts of “man” or “woman” are interchangeable on the body, which not only had to fully fit the rigid anatomical understanding of what it means to be a man or a woman, but these roles had to be performed socially. Butler argues that Money’s concept of malleability engages in more forceful violence than actual malleability to enforce a gender identity, which is limited by social stereotypes. Money’s social interlinking with scientific ideas thus only flared the surface, as he still believed in the importance of the material body, even if it is modified. Both Butler and Fausto-Sterling argue that the body is important to the political discourse:

There *are* hormones, genes, prostates, uteri, and other body parts and physiologies that we use to differentiate male from female, that become part of the ground from which varieties of sexual experience and desire emerge. Furthermore, variations in each of these aspects of physiology profoundly affect an individual’s experience of gender and sexuality.¹⁴⁴

The nature discourse addresses gender as a pure bodily matter embedded in biology and genetics, while nurture is the influence of social paradigms on one’s identity. It should be stressed that Money did not ignore nature in his theories, rather, taking his gendermaps into account,¹⁴⁵ one can clearly see an interplay between nature and nurture.¹⁴⁶ However, his conviction to abide by stereotypical gender roles, undermined the potential of his theories to revolutionize societal conceptions of gender and affect science and biology in a more lasting way. Instead, he maintained the pseudo-biology of gender, as he did not believe in genital ambiguity, and thus perpetuated these abusive medical traditions. There is a societal obsession with the body and its biology, constantly aiming to dictate and police every behavior of Intersex and ambiguous bodies, forcing them to follow stereotypes and appearances

¹⁴⁴ Fausto-Sterling, *Sexing the Body*, 22.

¹⁴⁵ Refer to the appendix “Figures and Diagrams”, section “B. Diagrams.”

¹⁴⁶ Goldie, *The Man Who Invented Gender*, 51.

of an unambiguous cis-gender body. The discussion over nature versus nurture finally only focused on the mainstream heteronormative conceptions of what a body should be like, and does not reach in to include Intersex bodies and voices. Butler argues that social notions of the body are constructed through a gendered matrix: the heterosexual matrix.¹⁴⁷ Thus, these beliefs are imposed on all bodies to organize them within this matrix, and it renders intersexuality invisible. Money argued for the acceptance of intersexual people and for their “normality,” but his actions and his impositions proved otherwise. The pseudo-biology of gender factors from and permeates into society; it is a cycle that goes beyond the nature/nurture discourse and affects every aspect of social interaction.

If a child is born with two X chromosomes, oviducts, ovaries, and a uterus on the inside, but a penis and scrotum on the outside, for instance, is the child a boy or a girl? Most doctors declare the child a girl, despite the penis, because of her potential to give birth, and intervene using surgery and hormones to carry out the decision. Choosing which criteria to use in determining sex, and choosing to make the determination at all, are social decisions for which scientists can offer no absolute guidelines.¹⁴⁸

Money’s views of sex and gender were always controversial. His early work questioned biological essentialism, and biology’s hegemony over the definitive answer as to the formulation of gender identity and role. He “suggested in many publications that identity is a complex result of interacting forces.”¹⁴⁹ He argued that both nature and genetics, and nurture and the social environment are important in this development, but so are other concepts and issues that do not necessarily fit perfectly in either categories. “‘Nature’ might be considered as the condition before birth, but many environmental factors that enter the uterus shape the fetus. Prenatal and postnatal hormones are actually nurture, highly influenced by factors outside the individual’s body, but are considered as nature.”¹⁵⁰ However, ultimately, one must remember that despite Money believing in both aspects of the debate in the formulation of gender, he put more emphasis on nurture and the environment in the

¹⁴⁷ Butler, *Gender Trouble*, 28.

¹⁴⁸ Fausto-Sterling, *Sexing the Body*, 5.

¹⁴⁹ Goldie, *The Man Who Invented Gender*, 177.

¹⁵⁰ Ibid.

case of Reimer, without taking into consideration his body's biology, and how it would affect his growth. Theoretical work must be met with proper scientific methodology, rather than random procedures imposed and manufactured in a way to maintain the success of the experiment.

Queer Theory criticizes the role the domain of biology has played in essentializing and reducing identities to just the body, while maintaining that there is a combination of both nature and nurture in one's identity and behavior. The critical field of queer theory is, in fact, more interested in the dynamics and the political role gender identities play every day, and the role science has imposed on the politicization and the abuse of the queer body, rather than the origins and the formulation of gender identity. Fausto-Sterling argues that "the ease with which such debates evoke the nature/nurture divide is a consequence of the poverty of a nonsystems approach. Politically, the nature/nurture framework holds enormous dangers."¹⁵¹ One should move beyond the issue of the development of gender, to be able to perceive the importance of the body in the politics of identity and gender, and to give a voice to all individuals, including ones with nonmainstream normative bodies and identities. Money's intent was in the right place to reach the concepts defended by queer theory today, but he succumbed to the inherent societal structure that permeated, and still permeates everyday behavior and thought.

¹⁵¹ Fausto-Sterling, *Sexing the Body*, 26.

CONCLUSION

This thesis does not aim to answer the question of what gender is, nor does it at any point assume that the nurture versus nature debate has been resolved. In fact, in a sense it dives into the complex “push and pull” between science and society. It brings into question what is normal and what is normative, and how this affects the politics of queerness. This thesis is not a biography of John Money, nor is it an extensive argument to promote an apologist point of view. Mistakes were made, and consequences ensued. Money was both a pioneer and pariah, both justified titles, which in some light he deserved. This thesis aimed to answer the question of how John Money impacted Queer Politics. Its goal was to place Money’s work in the historical context of the evolution of the concept of gender and the development of queer theory and politics. Any person as infamous as John Money is not a master of their legacy; people chime in. And despite Money's obsession with innovation and claiming a spot among "greatness," he could not foresee, or at least avoid, the possibilities of the Reimer case tarnishing and minimizing his role in sexology.¹⁵²

With queer discourse at the center of many political and social debates, it becomes necessary to understand and clarify the movements and factors that have shaped this discourse, to be able to extrapolate, predict and prescribe its evolution. Money came in during a tumultuous time of change, where sexual liberalism was confronted from one side by social conservatism and traditional values and by the AIDS crisis from the other. Moreover, as it was seen through this thesis, Money’s work established neologisms and concepts that are instrumental to queer politics today.

This thesis first overviewed Money’s interest in gender and the academic context during which he started his work. To understand Money’s contributions to the domains of sexology, sociology, and medicine and his work on intersex individuals, the thesis explored the definition of the word gender semantically and linguistically, to then survey the history of gender as a concept, and looked at the amalgamation of biological differences and social expectations of the different sexes. This led to discussion over the defining aspects of gender in the twentieth century. This period saw a medical and scientific revolution that refashioned research methods, and thus

¹⁵² Goldie, *The Man Who Invented Gender*, 190.

made way to new questions and debates. Human sexuality was among these discussions and its different facets pertained to multiple sub-domains of science and research. The post-World War II period was rife with scientific researchers that were interested in sexual anomalies in all their forms. Alfred Kinsey and Lawson Wilkins were among the chief influencers in the domain of sexology who actively played an important role in forming Money's interests in the field. Kinsey's normalization of sexual orientation and Wilkins's work on pseudo-hermaphrodites shaped Money's curiosities and his innovations. The thesis then analyzed Money's career in both its pioneering and defamed phases to be able to trace his impact on the queer political discourse.

His first pioneering theory, the gender neutrality theorem, was deduced from his work on intersex individuals with Congenital Adrenal Hyperplasia, in Wilkins' clinic. The examination of the history of gender as a concept was necessary to understand how Money revolutionized the word, and coined new terminology, as well as to how he explained his theorem. He believed that the word "sex" implied a hefty meaning, and needed to be alleviated. This combined with his observations on two CAH individuals, both with XX chromosomes, adapting to two contrary gender identities, pushed him to redefine the word "gender" as the set of social behaviors and stereotypes associated with either femininity and masculinity, and argued that gender is plastic and malleable up to twenty months of age. These concepts were revolutionary, and Money kept building upon them, such as with his gender-identity/role concept and his gendermaps. With his argument that gender is influenced by both nature and nurture, with a larger impact of the latter, Money initiated a heated debate on the origins of gender identity. While he garnered opponents, social movements, such as second-wave feminism, and scientists began adopting his concepts for their own agendas. In 1967, Money came upon an identical twin boy with a botched circumcision. His family, the Reimer family, sought Money's aid, and Money saw an opportunity to empirically assess the validity of his theory on an infant who was not Intersex. Moreover, since he was a twin, the other sibling offered a perfect control. Thus, Money convinced the parents to surgically remove the testicles of their son and raise him as a girl. For the next decade, the

Reimer family visited Money's gender clinic annually, to follow up on the evaluation of the reassigned girl's development. Based on misinformation from the parents and a desire to oversee the success of the case, Money published preliminary positive results in 1972, which blew up domestically and internationally, as they validated his previous pioneering concepts. The case became central to the discussions on gender equality, as well as to the modification of the common belief that gender was essentially biological, rather than environmental. From then until 1997, Money dominated the discourse in sexology for his pioneering work.

However, in 1997, Money's opponent, Milton Diamond followed up on the Reimer case, on which Money had stopped reporting after 1985. Diamond discovered that Reimer's reassignment as a girl failed, and was living his life as a man, after a double mastectomy, testosterone treatment, and a rudimentary phalloplasty. Collaborating with John Colapinto, a *Rolling Stone* reporter, the case was published under the title the "John-Joan" case. The news of the failure of Money's theories reverberated through the different domains Money had affected, and discredited all his previous work. Moreover, the tone of Colapinto's book *As Nature Made Him* portrayed Money as a monstrous egomaniac who went against nature and went to extreme measures to prove his theories. The thesis elicited the events of Money's rise and fall to better understand how he was perceived during and in the aftermath of Colapinto's publication by queer politics. Thus, a Queer Theory analytical perspective is used throughout this essay, especially in the last chapter, to evaluate Money's recognition and legacy on queer politics. This thesis used multiple academic publications and resources that discussed Money and his work through different aspects. Relying on an analysis through a queer theoretical point of view, based on the works of two prominent scholars – Judith Butler and Anne Fausto-Sterling – this thesis compiled historical, medical, scientific, sociological, feminist and queer theories, concepts, and data to finally reach the answer seen above. Among the publications used were some of Money's own publications, essays that discussed or mentioned Money's work from a sociological perspective relevant to the thesis, biographies and commentaries on Money's endeavors, and books and articles that discussed relevant queer theories to the thesis.

Nevertheless, it is necessary to take into consideration the limitations that framed the research. It is impossible to examine all literature that discusses the origin and the evolution of gender as an idea and concept, nor is it even possible to assess the implications of this construct in all the different fields, ranging from anthropology and sociology to religion and medicine in one essay. The spectrum of different theories and philosophies that discuss gender are many, hence why the historical scope of this thesis was limited firstly to the twentieth century, and secondly to the post-World War II era and the sexual revolution in the medical field – initiated only a short decade afterwards. Money played an important role in affecting a sexual revolution in the domains of endocrinology, psychology, and sexology, which later seeped into sociology, feminist studies, and other fields. The aim of the thesis was not to compile Money's work and research; it went beyond and looked at the political and historical implications of his theories and concepts on different domains. Therefore, while it was important to look at the major works of his vast bibliography, the research was limited to the important books and papers that follow the framework established by this dissertation: the ones that discussed his theory of gender neutrality, his gendermaps, his gender-identity/role concept, and his work on intersex and Trans individuals. During his career, Money covered many subjects, not only limiting himself to gender, intersexuality, and sex reassignment surgeries, but also tackling sexual orientation, love, pedophilia, paraphilia, among others. Furthermore, many biographies have been written to cover Money's life in detail, hence limits on the research of this section were imposed to a Colapinto's biography of Reimer, and Goldie's apologist biography of Money.

Despite it being a recent field, queer theory enlists many academics and scholars publishing books and articles on the subject. As it is a field that functions as an umbrella encompassing different thoughts and arguments, where sexual identity, gender identity, race, feminism, and socio-politics intersect, the frame was limited to research on gender identity formation and Trans and Intersex politics, as those are the fields that center around the thesis question. Academic peer-reviewed literature is vital to the formulation of a thesis, but it is necessary to limit the theoretical framework to avoid tangents. Hence, why the queer theoretical framework of this

thesis was mainly centered around Butler's gender performativity and the heterosexual matrix, and Fausto-Sterling's commentary on the nature versus nurture debate and the importance of the queer body to the discourse on gender. Finally, extrapolation is a fine line that should not be crossed; as aforementioned, gender is political by nature, due to the routine dynamics of society and the imposition of performances based on gender identity. While Money played an important role in redefining gender, one should not assume that the discussion on gender's position in the nature versus nurture debate did not exist beforehand. Furthermore, it is important to understand the interplay of medicine and sociology in a nascent but rapidly growing field such as sexology, but extrapolation on Money's direct impact on the international queer political discourse must be avoided. Indeed, queer politics are transnational, especially in this contemporary era, but to predict and prescribe the future evolution and development of this movement, one must understand the history behind it, and try to analyze the important aspects of its history.

Money's work did not only influence Queer Politics: his research expanded deeply into psychology and medical protocols, as well as sexuality, counseling, and dyslexia. Many of his other neologisms, such as "lovemap" and "paraphilia," are still used today academically in Psychology, and had a considerable impact on opening the discussion on fetishism and paraphilias in sex.¹⁵³ Money was a sexologist, but he was constantly trying to connect the realms of science and society, because he perceived the interrelation between scientific discovery, and societal impact and influence. However, he fell prey to the same societal constructs he was trying to bend: his logic and thought was bound by the gender binary, and forced his concept of malleability into a rigid box.

Our bodies are too complex to provide clear-cut answers about sexual difference. The more we look for a simple physical basis for "sex," the more it becomes clear that "sex" is not a pure physical category. What bodily signals and functions we define as male or female come already entangled in our ideas about gender.¹⁵⁴

¹⁵³ Downing, Morland, and Sullivan, *Fuckology*, 1-18.

¹⁵⁴ Fausto-Sterling, *Sexing the Body*, 4.

Through the lens of queer analysis, the thesis argues that Money's theories failed due to the impositions of gender performativity: his behavior was embedded in the binary, and he influenced his patients, including Reimer, to pursue a life influenced by conservative gender stereotypes. While his work was, indeed, influential and pioneering for his period, his concept of gender malleability had to be enforced on the individuals in question. Using Butler's concepts of performativity and the heterosexual matrix, the thesis discussed the Reimer case through this concept, and concluded that Reimer was a victim to Money's conservatism and his obsession with success. Money's neologisms did play an important role in creating a language that was non-existent: the paradigms he established were debated beforehand, but the terminology was lacking at the time. This vocabulary is still very much used today in feminism and queer theory, and has expanded into a larger domain.

Money always stressed his desire to bridge science and society through his concept of gender, and initiated a debate much needed in the science field: the role of nurture in forming gender identities. However, due to his social conservatism, and the belief that gender could only be either/or, the nature versus nurture debate only perpetuated the invasion of the queer body by medicine and science to impose the binary. While gender, in Money's theories, is a factor of both nature and nurture, as opposed to Diamond's beliefs, which were more conservative and based in biological essentialism, the conditioning of the body into two performances and two sexes undermined the nature/nurture debate, and maintained the hegemony of scientific conservatism on the body itself. Ultimately, Money did impact queer politics, however, ironically, it was his failure that pushed forward a positive discourse among these communities: the understanding of gender through science and the boundaries that limit medicine from exploring other possibilities, as well as the importance of queer bodies' visibility in this discussion, as they are constantly used and abused to push forward a medical agenda drenched with social conservative beliefs. Money did desire to change the perception of gender in the scientific field, by bringing in a social perspective, but he fell prey to a tradition that has affected science ever since, as discussed previously: research reflected social traditions into a pseudo-biology. Money's pioneering concepts could have, in a way, established a

new tradition, but fell through due to his mistake with Reimer. To conclude this thesis, the words of Anne Fausto-Sterling encapsulate this debate: “In order to shift the politics of the body, one must change the politics of science itself.”¹⁵⁵

¹⁵⁵ Ibid, 8.

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APPENDICES

DRAMATIS PERSONAE

John Money	Born in 1921 in New Zealand, John Money was an internationally renowned psychologist and sexologist, interested in the formation of gender and sexual identity. He extensively studied intersex people, individuals with sexual anomalies and hormonal imbalances, and theorized on the development of sexual orientation and gender identity. His reputation was destroyed as a consequence to his involvement in the David Reimer case.
David Reimer	Born in 1965 in Canada, as Bruce Reimer, twin brother to Brian, David underwent at eight months old, a circumcision to fix a phimosis, which ended up being botched. By consequence, after his parents watched a televised interview with a renowned psychologist, John Money, they decided to seek his help with their son's case. Reimer's testicles were surgically removed, and by consequence raised as a girl, Brenda. Yearly inspections were conducted on Brian and Brenda and they were closely studied by Money who followed up with Brenda's gender identity formation. During her early teenage years, Brenda was subjected to estrogen hormonal treatment to induce the growth of breasts. However, by the age of 15, David decided to live the rest of his life as a man, as he never felt like a woman. He underwent a double mastectomy and a phallic reconstruction. His case became infamous internationally, once it was brought to light. David committed suicide in 2004.

John Colapinto	Canadian journalist who heard of the David Reimer case – called clinically John/Joan case – published in the magazine <i>Rolling Stone</i> a twenty-thousand-word essay on John Money and his failed research. Bringing in David's point of view, and the suffering he went through, Colapinto shed light on the errors and the failures of Money, and the pain he had caused to David, and the Reimer family. He went on to publish a book, <i>as Nature Made Him</i>, expanding on the subject, and attacking Money's reputation. The report and the book created an echo across sexology, sexual psychology, and the media.
Milton Diamond	Retired professor of anatomy and reproductive biology and anatomy at the University of Hawai'i. He spent his career studying human sexuality and is still active with his research and writing after retiring from his position in 2009. He was Money's adversary, as their concepts of gender development clashed, and represented the nature versus nurture debate. He was instrumental in the follow-up on the Reimer case in the 1990's, disproved Money's theories, and collaborated with Colapinto to publish the initial article on the case. He contributed majorly to Colapinto's compiled research in his book <i>As Nature Made Him</i>.

Alfred Kinsey

Sexologist and zoologist who revolutionized the concepts of human sexuality. Kinsey established, in association with the University of Indiana, the Kinsey Institute for Research in Sex, Gender, and Reproduction, in 1947 to expand his team and research on the intricacies of human sexuality in both males and females. He published two independent reports, the first one on male sexual behavior in 1948, and the second on females in 1953. Kinsey's publications shaped and modified many conceptions of the post-war era. With his work on human sexuality, new opportunities were available, and the publication of his first report forced the general society to embrace his discoveries. One could argue that Kinsey's work normalized some aspects of sexuality, or at least initiated change, which was central to the sexual revolution of the 1960's during Money's prime.

Lawson Wilkins

Pioneering American physician, he established the field of pediatric endocrinology. He established a clinic to assess infant patients with endocrinological problems. His research led him to work on patients suffering from Congenital Adrenal Hyperplasia. Consequently, he was interested in intersex newborns and individuals exhibiting ambiguous genitalia. He hired John Money at his clinic, at Johns Hopkins University in 1951.

Judith Butler	American gender and queer theorist who contributed to the establishment of queer theory as a field in critical theory. She is considered as a third-wave feminist. In her books, she challenges traditional societal conventions of gender, and argues that gender is performative, affected by the environment rather than nature. In 2004, she wrote a book titled <i>Undoing Gender</i> in which she assesses the medical treatment of intersex people and concentrates on the Reimer case.
Anne Fausto-Sterling	Professor of gender studies and biology at Brown University, she is a prominent queer theorist and a third-wave feminist. She is actively involved in sexology and has connected the realms of science and sociology through her writings and publications on the biology of gender, sexual and gender identity, and gender roles.

CHRONOLOGIES

1921	July 8	John Money is born in New Zealand.
1944		Money obtains a master's degree in psychology and education from the Victoria University of Wellington.
1947		Money emigrates to the United States.
1948		Kinsey publishes <i>Sexual Behavior in the Human Male</i> .
1951		Money is hired by prominent endocrinologist Dr. Lawson Wilkins and becomes a professor of pediatrics and psychology at Johns Hopkins University.
1952		Money earns his PhD from Harvard University. He publishes his thesis on Hermaphroditism.
1953		Kinsey publishes <i>Sexual Behavior in the Human Female</i> .
1965		Money and his colleague Claude Migeon establish the Johns Hopkins Gender Identity Clinic.

Diamond, a graduate student in biology, writes a critique of Money's theories, titled "A Critical Evaluation of the Ontogeny of Human Sexual Behavior."

- 1967 David Reimer's case is brought to the attention of John Money. Treatments to raise David, at the time known as Bruce, as a girl start.
- 1971 Money responds to Diamond's criticism and dismisses him.
- 1972 Money and Erhardt publish *Man & Woman, Boy & Girl*, where they talk about Reimer's alleged success.
- 1975 Money and Tucker publish a book titled *Sexual Signatures on Being a Man or a Woman*, where the Reimer case's success is mentioned for the second and last time.
- 1994 Money publishes his work on sexual anomalies in a book titled *Sex Errors of the Body and Related Syndromes: A Guide to Counseling Children, Adolescents, and their Families*.

1996		Money re-publishes his book on gender identity and malleability, titled <i>Man & Woman, Boy & Girl: Gender Identity from Conception to Maturity</i> .
1997		The Reimer case receives international attention, after Diamond and Sigmundson publish a report.
	December 11	John Colapinto, a reporter, publishes his first article on the Reimer case, known as the John/Joan case in <i>Rolling Stone</i> , to shed light on Money's errors and mistakes.
2000		The Reimer brothers alleged that Money pushed them to perform infantile sexual acts for his research. Colapinto publishes a book based on his article written in 1997, entitled <i>As Nature Made Him: The Boy Who Was Raised as a Girl</i> . Anne Fausto-Sterling publishes <i>Sexing the Body</i> .
2002	July 1	Brian Reimer, David's twin brother, commits suicide.
2004		Judith Butler, a philosopher and queer theorist, publishes a book on gender performativity, in which she discusses the impact of the David Reimer case on gender identity and

performativity.

May 4 David Reimer commits suicide at the age of 38.

2006 July 7 John Money dies at the age of 81.

Humans' sexual differentiation happens in two major steps through development, first in the fetus, and then during puberty. In utero, the fetus shows the first signs of sexual development around seven weeks; however, differentiation happens around the twelfth week of pregnancy. Prior to any signs of differentiation, fetuses present undifferentiated genitalia that are common to both males and females. John Money, in his research, points to different aspects of human sexuality, distinguishing five: external genital morphology, internal sex morphology, chromosomal sex, gonadal sex, and hormonal sex. Within this section, the development of these features and the differences perceived between the two sexes, as well as the exceptions of nature, is clarified further on.

Sexual determination starts with chromosomal sex. In the lack of any chromosomal phenomena, such as crossing-over or slow astral projections – biological mechanisms that will be explained later – two different sexual determinations are observable. Within the karyotype, the chromosomal map, humans possess 23 pairs of chromosomes. The last pair shows a difference in size and shape between males and females: while the latter's chromosomes are similar in shape and size, the males' second chromosome is much smaller (view Figure 2). These two chromosomes were named the sex chromosomes, with the larger one called X and the smaller, Y.

Conception happens when two germ cells, or gametes, fuse together, the sperm (male gamete) and the egg (female gamete). These cells are formed through a procedure called meiosis. Every autosomal (non-germ) cell has all 23 pairs of chromosomes. Each chromosome possesses two identical branches called chromatids. To create germ cells, whether sperms or eggs, specialized autosomal mother cells go through meiosis, during which they go through two cellular divisions (cytokinesis). The first cellular division separates homologous pairs of chromosome, leading to two daughter cells with only 23 chromosomes each, instead of 46, or the 23 pairs of

¹⁵⁶ Ronald Swerdloff and William Odell, "Hormonal mechanisms in the onset of puberty,"; Savic et al, "Sexual differentiation of the human brain in relation to gender identity and sexual orientation," In *Progress in brain research*, vol. 186, pp. 41-62, Elsevier, 2010; Money 1968, 15-21.

chromosomes. The second division leads to the separation of the chromatids of the chromosomes, giving a total of four daughter germ cells of 23 chromatids each.

As the karyotype of the chromosomal woman shows two X chromosomes, egg cells will all be X chromosome holders. The male karyotype shows the sex-chromosomal difference; hence sperm is either a Y-sperm or an X-sperm, being therefore the deciding factor of the fetus's sex. During conception, the sperm, whether X or Y, fuses with the X egg, determining this a male baby – XY, or a female – XX. By the seventh week of pregnancy, the fetus begins to develop undifferentiated sexual reproductive organs. According to Diagram 1, the sexually indifferent fetus has a genital tubercle – which would develop into either a clitoris or a phallus, bipotential gonads – which can either develop into testes or ovaries, labioscrotal folds – which would develop into either the scrotum or the labia, two sets of ducts – Müllerian and Wolffian, and urogenital sinus. Then by the 14th week, differentiation starts, initiated by crucial gene usually found on the Y chromosome: the SRY gene.

The Sex-determining Region Y protein is a gene-regulatory protein encoded by the SRY gene found on the Y chromosome. If the SRY gene is present in the genome of the fetus, it will start secreting after transcription and translation, the protein which will bind to the DNA in other parts of the genome, to initiate a cascade of genes that will work collaboratively to enforce the differentiation of the indifferent gonads into testes and the formation of the male internal and external sex morphology. The expression of the SRY gene initiates the production of these different other proteins that affect the indifferent bipotential gonad and causes it to become a testis. The testis possesses two different sets of cells: Leydig cells and Sertoli cells. Leydig cells primarily secrete Testosterone, a steroid or androgen, which plays a primary role in the “masculinization” of the genitals. Testosterone enhances the development of the Wolffian ducts into seminal tubes, and the formation of the scrotum, and the growth of the genital tubercle into a phallus. On the other hand, Sertoli cells secrete Anti-Müllerian Hormone which forces the regression of the Müllerian ducts. The production of testosterone by the testes is essential for the sexual organs' differentiation between the sixth and the twelfth week of pregnancy.

Although estrogen and testosterone are present in both sexes, the masculinization of the undifferentiated genitals necessitates the presence of testosterone, whereas feminization does not necessitate any androgen or estrogen. Lacking the SRY gene, the natural development of the sex leads to the regression of the Wolffian ducts, and the direct development of the Müllerian tubes into oviducts, the differentiation of the gonads into ovaries, the labioscrotal folds forming the labia majora, and the genital tubercle into the clitoris. Studies done on rats have shown that the injection of testosterone in vivo in a chromosomal female fetus during pregnancy will induce a masculinization of the sexual organs, while in other studies, the silencing of the SRY gene in certain fetus will lead to feminization, despite the male chromosomal sex of the fetus, due to a lack of testosterone secretion. Therefore, one can conclude that the delineating factor determining the sex of a baby is the presence or lack of testosterone, affecting the masculinization of the sex organs.

Female hormones, estrogen and progesterone, come into play during secondary sex characteristic development of females during puberty. At this point of time, both the bodies of males and females go through a differentiation of secondary sexual characteristics and initiate the process of sexual maturation. A series of endocrinological changes affect major glands in the body, which would launch a series of hormonal changes in the rest of the body: the hypothalamus, the pituitary, the gonads, and the adrenal glands. For the female human, the first phases of sexual development involve the budding of the breasts, and hair growth in the labial and pubic areas. Further development includes the enlargement of the breasts, the projection of the areola above the breast plane, and the expansion of pubic hair laterally. For the male, pubic hair growth starts at the base of the penis, while the scrotal skin starts to redden. Following stages include the enlargement of the testes diameter, the enlargement of the phallus, the coarsening of pubic hair, and beard growth. Both present the growth of axillary, pubic, and axial hair growth.

However, as mentioned above, the real changes happen internally. In the female human, puberty is initiated by the menstrual cycle. Every month, the ovaries will nurture a group of different eggs to maturity. Out of the group of chosen eggs, only one will survive which is expelled out of the ovary into the Fallopian tubes, while the

others degenerate and become nutrients. This egg grows cells around it called follicles that play a double role: nutrition and secretion. The follicles start to secrete estrogen, the feminizing hormones. Throughout the development of the egg, follicles, stimulated by the anterior pituitary, keep secreting estrogen, until it reaches a certain threshold. Once this level of blood estrogen is reached, a positive feedback loop goes into effect – an increase in the blood levels of estrogen alerts the brain, which then commands the endocrine system to secrete even more estrogen. At this point, the pituitary increases the secretion of estrogen through the secretion of two gonadotropin hormones: Luteinizing Hormone (LH) and Follicle-Stimulating Hormone (FSH). The blood levels of these two reach an exponential peak that causes the follicles to eject the egg. This phenomenon is called ovulation. The follicles then die and transform into a body, the corpus luteum, that secretes a second hormone, progesterone. This hormone causes the development of a second, soft, muscular tissue on top of the uterine muscles. This tissue is highly vascularized in aim to prepare for the egg's fertilization. Throughout the menstrual cycle, the uterine tissue keeps on developing as long as the corpus luteum secreting progesterone is present. However, in the lack of fertilization, the corpus luteum degenerates, and the levels of progesterone in the blood cannot be maintained, which causes the uterine tissue to break, as there is not enough progesterone holding it together. By the time the corpus luteum degenerates, the uterine tissue breaks and causes menstrual blood to be ejected through the vagina.

Internally, the male does not seem to have such a complex system. A negative feedback loop – an increase of the levels of testosterone alerts the brain, which then commands the endocrine system to stop secretion to return to average levels – defines the secretion of testosterone, which incorporates the same cells involved in the masculinization of the embryo. Leydig cells secrete testosterone, which plays into a loop with the anterior pituitary. If the blood levels of testosterone are too low, the hypothalamus will send a hormonal signal to the anterior pituitary to secrete the luteinizing hormone, which will be sent to the testes to secrete more testosterone causing a peak in the testosterone blood levels. The peak surges above the necessary threshold, meaning that the hypothalamus catches on to the high levels of

testosterone, signaling by consequence to the anterior pituitary to halt the secretion of LH, and ultimately halting testosterone secretion. This causes a constant cycle of testosterone peaks in the blood level of males and contributes to the formation of sperms in the testes.

Nevertheless, on the chromosomal level, during meiosis, certain phenomena can affect the sex of children. Crossing-over is not an uncommon observation during the first stage of meiosis. When the chromosomes align in pairs on the center of the mother cells, chromatid branches can get intertwined, thus trade places with each other during cytokinesis. In the context of the SRY gene, the chromatid branch of the Y-chromosome that usually holds the SRY gene, can get crossed over with the X chromosome's branch, leading to the X-chromosome in the daughter cell to hold the SRY gene on it rather than the Y-chromosome. In case that the sperm containing the SRY-X chromosome fertilizes the egg, the fetus at hand will possess two X-chromosomes, but will undergo masculinization in the fetus due to the presence of the SRY gene. If the sperm containing the SRY lacking Y-chromosome fertilizes the egg, then the fetus at hand will present a typically male karyotype but will not undergo masculinization due to the lack of the SRY gene, leading to the birth of a female baby.

Other aspects of sexual anomalies include chromosomal anomalies, where some newborns possess one extra or one less chromosome than the usual 46 (23 pairs). Caused by different factors, such as aging, radiation, genetics or environmental factors, certain germ cells while dividing during meiosis might end up with unequal daughter cells. For example, during cytokinesis the movement of the chromosomes towards the poles of the cell might be slow, causing a chromosome to end up in the wrong daughter cell, where once cell will have one extra chromosome, and the other one less. While this phenomenon can happen in both males and females, sperms that present chromosomal anomalies are either non-viable, or too slow to reach the egg for fertilization. The chances of survival of chromosomally abnormal germ cells in women are much higher, despite natural bodily mechanisms that scan and remove these abnormal cells. Fertilization thus can still occur. However, the survival rates of these fertilized eggs are low. Nevertheless, if these chromosomal abnormalities

happen with the sex chromosomes – X and Y, then the fertilized egg will survive. Therefore, potential progeny with an abnormal number of sex chromosomes would present these different karyotypes: Klinefelter's Syndrome – XXY two X-chromosomes and one Y-chromosome, 47 chromosomes in total; XYY Syndrome – XYY one X-chromosome and two Y-chromosomes, 47 chromosomes in total; Triple-X Syndrome – XXX three X-chromosomes, 47 chromosomes in total; Turner's Syndrome – XO one X-chromosome, 45 chromosomes in total.

FIGURES AND DIAGRAMS

A. Figures

CONSTRUCTING SEX AND GENDER: A POLITICAL, RELIGIOUS AND SCIENTIFIC HISTORY...



Figure 1. DiMassa, Diane. *Constructing Sex and Gender: a Political, Religious and Scientific History*. In *Sexing the Body: Gender Politics and the Construction of Sexuality* by Anne Fausto-Sterling. New York: Basic Books, 2000: 11.

MANAGING INTERSEXUALITY- AN HISTORICAL PERSPECTIVE



Figure 2: DiMassa, Diane. *Managing Intersexuality. An Historical Perspective*. In *Sexing the Body: Gender Politics and the Construction of Sexuality* by Anne Fausto-Sterling. New York: Basic Books, 2000: 41.

B. Diagrams

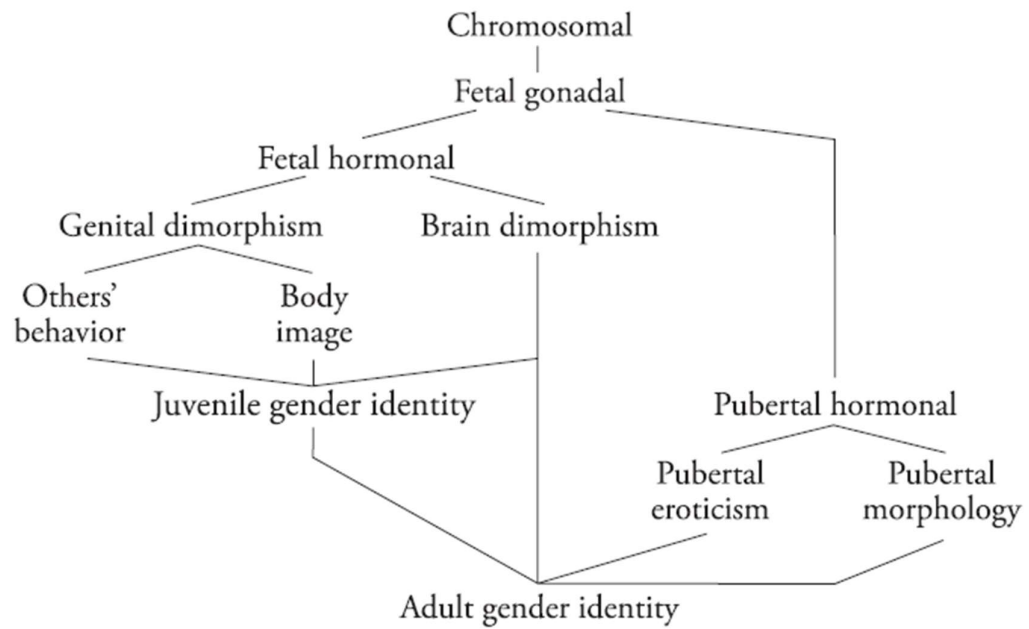


Diagram 1: Money, John. *Gendermap*. In *Man & Woman, Boy & Girl* by John Money, and Anke A. Ehrhardt. Baltimore: Johns Hopkins University Press, 1972: 3.

Convergent Multivariate Sequential Determinism of the Gendermap

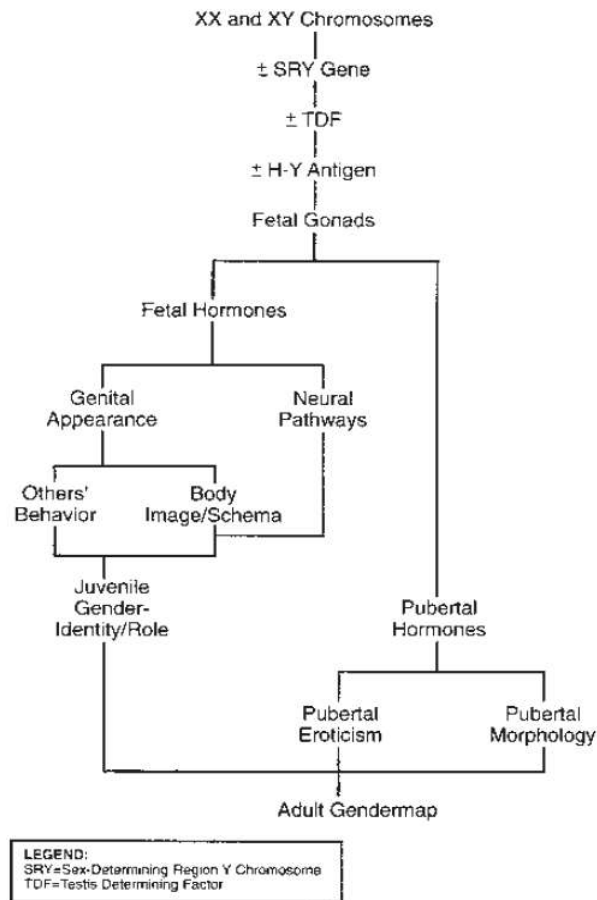


Diagram 2: Money, John. *Gendermap*. In *Gendermaps: Social Constructionism, Feminism, and Sexosophical History* by John Money. New York: Continuum, 1995: 98.

GLOSSARY

Adrenal Glands	Glands found above the kidneys that produce steroids such as adrenaline and cortisol.
Androgen	Hormones that affect the growth of the male reproductive system. Testosterone is an androgen.
Aphallic	Neologism used to describe an individual without a phallus.
Binary	Term used to describe the social structure of the two genders: man or woman. Used as Gender Binary as well.
Chromatid	One arm of the chromosome. Every chromosome has a pair of arms that are completely identical.
Chromosome	Thread-like structure that contains DNA found in the nucleus of living cells. Chromosomes carry genetic information and come in pairs. Humans possess 46 chromosomes that are distributed in 23 pairs.
Cis-gender	Cis- and cis-gender are a prefix and a term respectively that oppose the terms Trans, transsexual, and transgender. They are used to describe individuals who identify with the gender they were assigned at birth, as

opposed to Trans people.

Congenital Adreno-Hyperplasia	Hyperplasia of the adrenal cortex, also called Congenital Adrenal Hyperplasia is a genetic disease that affects the biochemical procedures of sex steroids, in the adrenal glands. Individuals with this disease can exhibit excessive secretion of androgens which can affect the primary and secondary sexual development in infants, children and teenagers. Male infants exhibit a precocious sexual development and high levels of androgens, while females present ambiguous genitalia and symptoms of pseudo-hermaphroditism. For more information, see David Warrell, <i>Oxford Textbook of Medicine</i> (2005).
Corpus Luteum	Mass that secretes progesterone, formed after ovulation, when the egg exits the follicle mass around it.
Crossing-Over	Exchange of genes or segments between a pair of homologous chromosomes through the exchange of arms during mitosis.
Cytokinesis	Division of a mother cell into two daughter cells.
Embryo	Development level of a fertilized egg usually used up until the eighth week after conception in humans.

Endocrinology	Branch of medicine and physiology that deals with the human hormonal system and endocrine glands.
Estrogen	Group of natural steroids, mainly secreted by the ovaries and the testes, that initiate the development of female secondary sex characteristics.
Fallopian Tubes	Canals found in the female reproductive system that connect the ovaries to the uterus and carry the egg onto the uterine tissue after ovulation and fertilization.
Fertilization	Fecundation, insemination, the fusion of a sperm and an egg to form an embryo.
Fetus	Developmental stage during pregnancy, usually used after the eighth week of conception until birth. cf. <i>embryo</i> .
Follicle-Stimulating Hormone	Gonadotropin hormone secreted by the anterior pituitary which stimulates the growth of follicles around the ovum/egg, and the activation of sperm generation.
Follicles	Cells that form a cavity around a mature egg in the ovaries for nutritious reasons and release an egg during ovulation.

Gamete	Germ cell, a reproductive cell, either male or female, capable of fertilization by fusion of two nuclei. The sperm and the egg are gametes.
Gender	Behavioral, cultural or psychological aspect of one's identity associated usually with sex.
Gender Dysphoria	Condition where one individual does not identify emotionally and psychologically with their assigned or biological sex.
Gender Identity	One's internal definition of their gender, either following societal norms or separated from conventions.
Genital Tubercle	Developmentary organ of a fetus that precedes a fully developed reproductive system and genitals. It is an undifferentiated structure.
Genome	Set of genes and genetic material of an organism.
Gonad	Primary reproductive gland that produces gametes and secretes hormones.
Gonadotropin	Hormones that is secreted by the anterior pituitary.

Hermaphrodite	Archaic term used to define individuals that present both male and female genital characteristics. cf. <i>Intersex</i> .
Heteronormativity	Beliefs that promote heterosexual behaviors and identities as the norm.
Intersex	Adjective and noun describing ambiguous genitalia, internally and externally, usually used for individuals presenting both ovarian and testicular tissue. It is a term used for some identities, and used in political contexts.
Karyotype	Map or representation of the chromosomes of one cell or an individual.
Leydig Cell	Cells that are found in the testes that secrete testosterone.
Luteinizing Hormone	Gonadotropin secreted by the anterior pituitary that assists in the formation of the corpus luteum in females and stimulates Leydig cells to secrete testosterone in males.
Meiosis	Set of divisions of a mother germ cell into four gametes, each possessing half the number of chromosomes in the

original cell.

Mitosis	Process of cell duplication. One mother cell goes through different procedures and cytokinesis to give birth to two daughter cells.
Müllerian Ducts	Undifferentiated ducts that develop into the fallopian tubes, the uterus, and the cervix in females, but will degenerate in males.
Negative Feedback Loop	When the levels of a hormone in the blood are higher than the average, the brain signals to the organs in question to halt the secretion, to reduce them. If the levels are too low, the opposite happens. Most hormones related to sexual differentiation are under a negative feedback loop.
Neologism	Word or expression defined newly.
Non-Binary	Adjective describing individuals that are not defined by the gender binary.
Patriarchy	System where men hold most power, excluding anyone else.

Phalloplasty	Plastic surgery to construct or reconstruct a penis.
Phimosis	Medical case where the foreskin of the penis is too tight and cannot retract to show the glans. This could obstruct urination, and could cause future issues with masturbation and other sexual acts.
Positive Feedback Loop	When the levels of a hormone in the blood reach a designated threshold, the brain signals to the organs in question to increase the secretion and go beyond the threshold. Estrogen goes through a positive feedback loop during ovulation.
Progesterone	A female steroid that prepares the uterus for implantation of a fertilized egg by increasing the vascularization and the muscle of its walls. It is secreted by the corpus luteum.
Pseudo-Biology	Thoughts and concepts that are believed to be biological, but are not based on proper scientific methodology.
Queer	Umbrella term used to encompass all sexual and gender identities that differ from the norm of heteronormative, heterosexual or cisgender identities. It is a political identity and terminology used to defined non mainstream identities.

Queer Theory	Field of critical theory that emerged in the 1990s that theorizes on queer identity and gender as a social construction.
Sertoli Cell	Cells found in the tissue of the testes that secrete anti-Müllerian hormones during development of male fetuses and generate sperms during puberty.
Sex Reassignment Surgery	Surgical procedure by which the physical and functional aspects of one's sexual characteristics are modified to fit the individual's desired gender identity.
Sexology	Study of human sexuality.
Sexual Anomaly	Physiologies that are not considered possessing "normal" genitalia or sexual development. I.e. Klinefelter syndrome, intersexuality, etc.
Sexual Differentiation	Process during which neutral genital characteristics, the genital tubercle and other organs, develop into either male or female genitals. It usually happens around the fourth month of pregnancy.
Sexual Revolution	Social movement that challenged traditional values of behavior during the 1960s in the United States and

revolutionized concepts of gender and sexuality.

Steroid Cortisone	One of the main hormones secreted by the adrenal glands.
Testosterone	A hormone mainly secreted by the Leydig cells in the testes that is responsible for the masculinization of a fetus and the development of secondary male sex characteristics.
Trans	Umbrella term that includes individuals that identify as transgender, transsexual, or other identities that differ from the gender assigned at birth.
Transgender	Term used to describe individuals whose identity, behavior, and concept of self differs from the gender that was assigned at birth. Transgender people do not necessarily undergo sex reassignment surgeries.
Transsexual	Term used to describe individuals who undergo sex reassignment surgeries in any form to transition from one sex to another.
Vaginoplasty	Plastic surgery to construct a vagina.
White-cis-hetero-patriarchy	System where white cisgender heterosexual men hold most power, excluding anyone else.

Wolffian Ducts

Undifferentiated ducts that develop into the urogenital structures, the seminal vesicle, and the epididymis in males, but will degenerate in females.

PLEDGE

“On my honour as a student of the Diplomatic Academy of Vienna, I submit this work in good faith and pledge that I have neither given nor received unauthorized assistance on it.”

VIENNA, AUSTRIA, ON THE 15TH OF JUNE, 2018.

Signature:

JADE MOUSSA

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This thesis is dedicated to my mother, May, my father, Emile, my sister Rana, and my aunt Salma “Légan.” I would not be here today without your love and your care. You believed in me when I could not believe in myself anymore, and for that I am grateful. The path I am on was paved by you, and I will always look back and remember where I came from, and how I got here: because of my family. I love you.

In conclusion, to the patriarchy: you’re going down! Queerness will prevail.

VITA

Jade Moussa was born on the 1st of October 1993, in Beirut, Lebanon, but was raised and educated in the Bekaa Valley, in the suburbs of Zahleh. Moussa holds both Lebanese and Canadian citizenship, and moved to Montreal in August 2011 to pursue a Bachelor's degree at McGill University. Moussa graduated in June 2015 with a Bachelor of Arts and Science in Organismal Biology and Political Science, and in 2016, studied at Concordia University, and majored in Modern Languages and Economics. However, by September of that year, Moussa moved to Vienna, Austria to pursue a Master's degree in Advanced International Studies at the Vienna School of International Studies, or better known as *Diplomatische Akademie Wien* (the Diplomatic Academy of Vienna). Moussa speaks four languages fluently (Lebanese Arabic, Modern Standard Arabic, French, and English), and can hold a conversation in four others (Spanish, Japanese, German, and Italian). Moussa is interested in the intersection of gender, language and biology, and is fascinated by the impact of linguistics on political and social identities, the evolution of a queer Arab identity in light of the international queer discourse, and the interplay of sexual chromosomes and their effect on the solidification of gender norms.

